Leif Lyneborg & Werner Barkemeyer

The Genus *Syritta*

A World Revision of the Genus *Syritta* Le Peletier & Serville, 1828 (Diptera: Syrphidae)

Entomonograph Volume 15

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Front cover: *Syritta pipiens* Linnaeus, male. Illustrated by Elizabeth Binkiewicz for The Swedish Flora and Fauna Encyclopedia and reproduced with permisison from The Swedish Taxonomy Initiative (Swedish Species Information Centre, Uppsala).

Contents

Abstract

This book presents a taxonomic World revision of the monophyletic genus *Syritta* Le Peletier & Serville, 1828. The work begins with chapters on the morphology, the distribution, and a checklist. Then follows a key to males and females of *Syritta*, illustrated by colour drawings.

The species are arranged in 16 species-groups as follows: the *divergata* species-group with 4 Afrotropical species: *S. minuta* new species, *S. divergata* new species, *S. stuckenbergi* new species, and *S. fusca* new species. Then follows the *bulbus* species-group with 5 Afrotropical species: *S. congoensis* new species, *S. senegalensis* new species, *S. angulata* new species, *S. bulbus* Walker, 1849 (= *S. bulbulus* Speiser, 1913), and *S. rufa* new species. The third species-group is the *tomentosa* species-group with 3 Afrotropical species: *S. tomentosa* new species, *S. unicolor* new species, and *S. brevis* new species. *S. stigmatica* Loew, 1858 (= *S. pleuritica* Speiser, 1910) is retained in a species-group of its own.

The large *pipiens* species-group of 8 species includes 5 exclusively Afrotropical species: *S. incrassata* new species, *S. cerca* new species, *S. similis* new species, *S. dentata* new species, and *S. leona* new species. One species: *S. fasciata* (Wiedemann, 1830) (= *S. abyssinica* Rondani, 1873, syn.n.; = *S. subtilis* Becker, 1903, syn.n.) is Afrotropical and Palaearctic. *S. pipiens* (Linnaeus, 1758) is Palaearctic, but also introduced into the New World, and finally is *S. stylata* new species probably restricted to S. India. The *lanipes* species-group consists of 3 Afrotropical species: *S. longiseta* new species, *S. lanipes* Bezzi, 1921, and *S. pilosa* new species. The *hirta* species-group includes 4 Afrotropical species: *S. hirta* Curran, *S. vockerothi* new species, *S. barbata* new species, and *S. decora* Walker, 1849.

The *indica* species-group is exclusively non-Afrotropical. Two species: *S. indica* (Wiedemann, 1824) (= *S. rufifacies* Bigot, 1883; = *S. femorata* Sack, 1913) and *S. proximata* new species are Oriental. Other two: *S. polita* new species and *S. noona* new species are from Papua New Guinea. The *nigrifemorata* species-group contains 6 species; 3 are Afrotropical: *S. nigrifemorata* Macquart, 1842; *S. leucopleura* Bigot, 1859 (= *S. tuberculifera* Keiser, 1971), and *S. austeni* Bezzi, 1915. Further, *S. aenigmatopatria* Hardy, 1964 in the North Pacific (Philippines to Hawaiian Islands), *S. hackeri* Klöcker, 1924 in Australia, and *S. thompsoni* new species in the Oriental. *S. orientalis* Macquart, 1842 (= *S. illucida* Walker, 1860, syn.n.) is widely distributed from India to Australia to the Hawaiian Islands.

The remaining species-groups all have an anomalous spurious vein. The *oceanica* species-group contains 2 Afrotropical species: *S. londti* new species, and *S. albopilosa* new species; and a further 3 species in the Pacific area: *S. papua* new species, *S. luteinervis* de Meijere, 1908, and *S. oceanica* Macquart, 1855. The *vitripennis* species-group consists of 4 Afrotropical species, all with a ventrally black katepisternum: *S. montana* new species, *S. vitripennis* Bigot, 1885, *S. carbonaria* new species, and *S. natalensis* new species. The *flaviventris* species-group contains 3 species, all primarily Afrotropical. They are *S. caboverdensis* new species, an endemic to Cape Verde Islands, *S. hova* new species from Madagascar and Kenya; finally *S. flaviventris* Macquart, 1842 (synonymy: see check list) which is also present in the Mediterranean subregion and has spread to the New World. *S. dilatata* Keiser, 1971 from Madagascar forms its own group. The *latitarsata* species-group contains 3 aberrant species: the widely distributed *S. latitarsata* Macquart, 1842, *S. vittata* Portschinsky, 1875, from S. Russia to W. Pakistan, and *S. asiatica* new species, known in one female specimen from Tajikistan. The final species-group contains two species endemic to oceanic islands: *S. snyderi* Shiraki, 1937 and *S. maritima* Hull, 1944. The paper is finished with redescriptions of "*S.*" *tanalaorum* Keiser, 1971 (Madagascar) and "*S.*" *triangulifera* Keiser (Sri Lanka), which we do not include in *Syritta*.

Introduction

The Syrphidae is one of the best studied Diptera families. Numerous papers have been published, especially on the Palaearctic and Nearctic faunas of syrphid flies. The knowledge of the Afrotropical fauna of Syrphidae, however, is in a poor state. Whittington (2003) has given the most recent assessment of the Afrotropical Syrphidae, and earlier to his paper Dirickx (1998) provided a review of Afrotropical syrphid research. The outcome of these studies was a total of 565 valid species, currently placed in 43 genera (Whittington 2003: 580).

One of these genera is *Syritta* Le Peletier & Serville, 1828, for which Whittington (2003: 602-03) lists 19 species. This number can be reduced to 14, as *S. abyssinica* Rondani, 1873 is a synonym of *S. fasciata* (Wiedemann, 1830); *S. bulbulus* Speiser, 1913 is a synonym of *S. bulbus* Walker, 1849; *S. indica* Wiedemann, 1824 is not Afrotropical; *S. subtilis* Becker, 1903 is a synonym of *S. fasciata* (Wiedemann, 1830), and *S. tanalaorum* Keiser, 1971 is not a *Syritta*.

In the material we have gathered from many museums and private collections, and also through collecting activity over the past more than 20 years by one of us (WB), we have recognised 40 species in Afrotropis, as can be seen in the abstract and the check list. This is an increase in the number of known species by a factor of almost 3. What is needed now is intensive taxonomic work on the remaining 42 genera.

In the course of our work with the Afrotropical *Syritta*, we decided to include the non-Afrotropical species, which has increased the number of species by 17. This disclosed some interesting species-group distributions, see the introductions to the *pipiens* species-group, the *nigrifemorata* species-group, and the *oceanica* species-group.

Copenhagen, February 2005
Leif Lyneborg

The head

The profile of the *Syritta* head (fig. 1) has the following characteristics: the lines of the occiput and the gena are both straight and meet at a right angle. The antennae are situated near the middle of the head on a moderately protrudent frontal prominence. From the frontal prominence and up to the vertex the head profile forms a curve of c. 90°. The contour of the face between the antennae and the oral margin is a character of importance. As a rule, this contour line is concave in *Syritta* but it is almost straight in a few species. The degree of concavity partly depends on the degree of protrusion of the oral margin. In the descriptions we have recorded whether the oral margin is receding, is level with, or is protruding compared with the frontal prominence. It's our experience that this character can not be correctly evaluated without the help of an ocular grid. Measurements have not been performed.

The antennae are of no great importance for the taxonomy of *Syritta*. Apart from colour differences, we have recorded the length and width of the basoflagellomere and the length of the arista. These measurements are taken with help of the ocular grid but are easily transformed to exact measurements, as 1.0 is equal to 125 µm. As will appear from the descriptions, the length of the basoflagellomere varies between c. 0.3 and 0.4 mm in the great majority of species; in a few of the largest species the basoflagellomere reaches a length of c. 0.5 mm. Correspondingly, the width of the basoflagellomere varies between c. 0.2 and 0.3 mm.

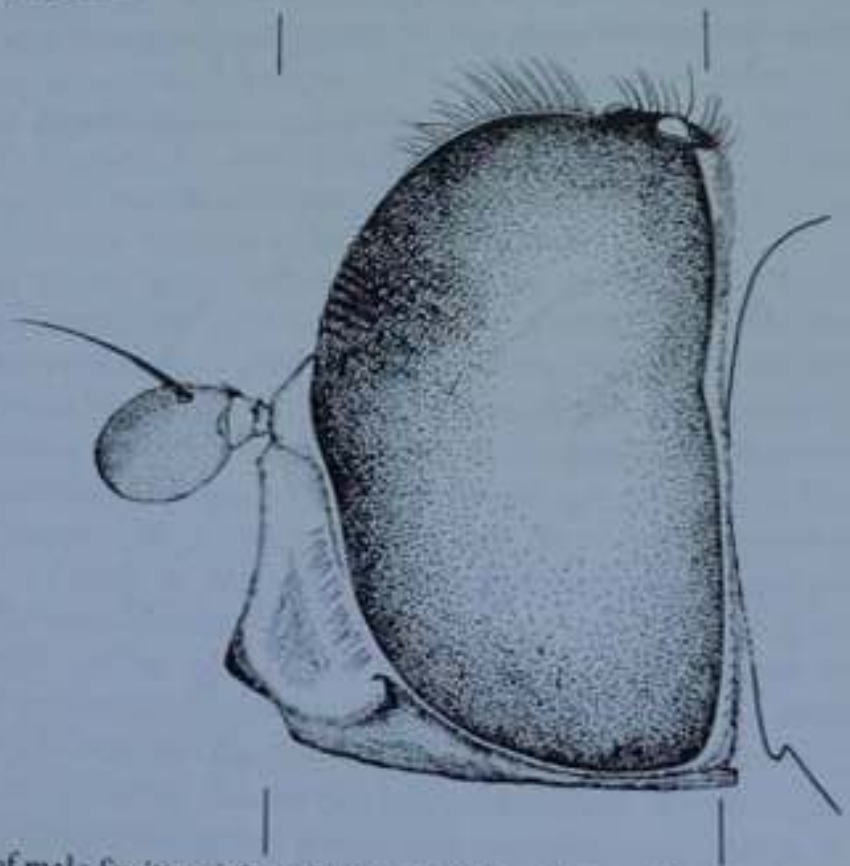


Figure 1. Head of male *Syritta pipiens* (Linnaeus), lateral view. Notice presence of a right angle between occipital and genal profile lines. The degree of protrusion of the oral margin to the frontal prominence shall be evaluated with the assistance of the two sets of lines.

The male head is holoptic, and the length of the eye contiguity varies between c. 0.12 and 0.5 mm. The shape and pattern of the male vertical triangle offer important taxonomic information. We have illustrated in colour the male vertical triangle of a number of species (see figs 25-34, 38-40, 48-59). The width varies from the very narrow vertical triangle of *S. dilatata* Keiser (fig. 28) to the very wide vertical triangle of *S. albopilosa* new species. The lower area with tomentum varies in extent from almost absent in *S. dilatata* Keiser to the entirely tomentose vertical triangle in *S. vittata* Portschinsky. The descriptions contain a value for the ratio between the tomentose lower area and the blackish upper area, measured to anterior ocellus.

The female frons has also been illustrated for a number of species. As in the male, the female frons shows remarkable interspecific differences with regard to its general shape and the distribution of tomentose and non-tomentose areas. In the descriptions we have given a value for the ratio between the tomentose lower area and the blackish upper area, measured to anterior ocellus. A great number of species possess additional paired tomentose areas on the blackish upper area of the frons. In most species the upper occipital area is pale grey tomentose most dorsally, followed by a darker section, and again pale tomentose ventral to this darker area. Some species have a uniformly dark tomentose upper occipital area.

The thorax

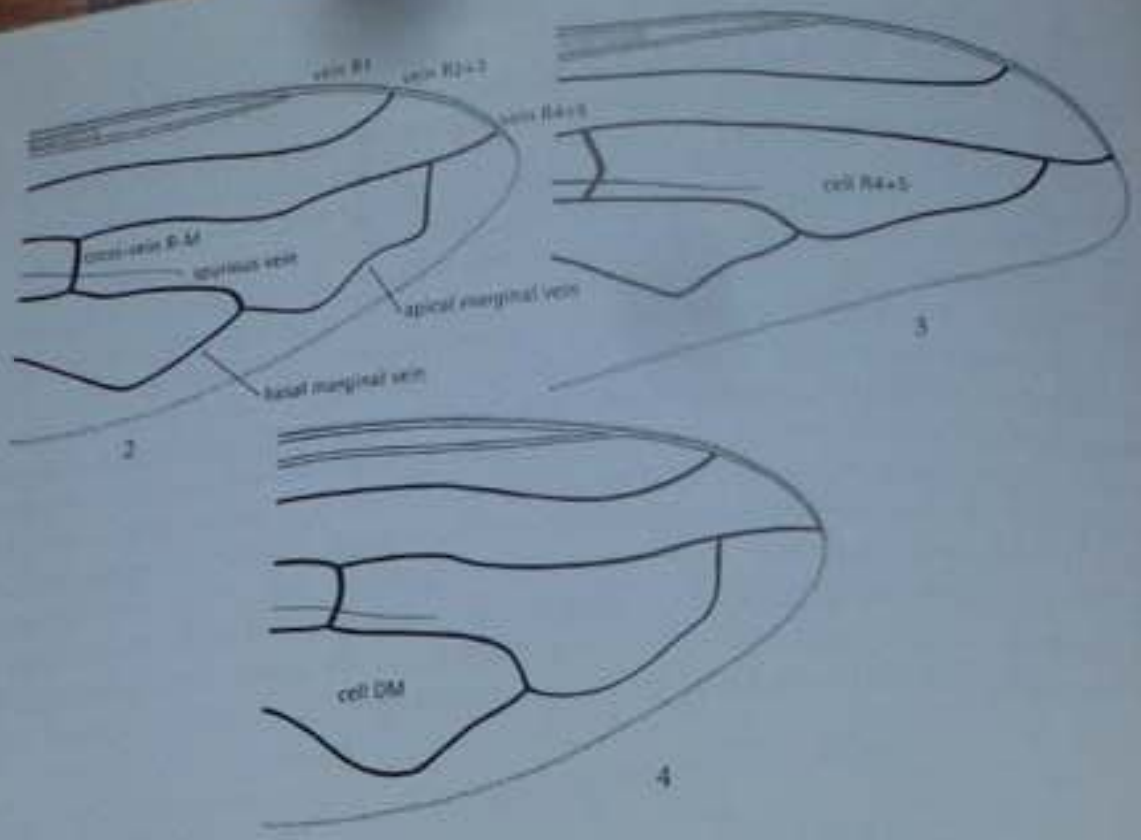
The scutum of most *Syritta* species is uniformly blackish, sometimes moderately shining, and with a lateral vitta of pale tomentum reaching the suture and including the postpronotum. The lateral vitta is usually sharply delimited medially, often having a concave median margin, and it varies in width among the species. The colour of the vittal tomentum can be greyish-yellow to bright golden-yellow; in some species the tomentum of the postpronotum has a different tinge than that of the scutal section. In the *tomentosa* species-group, the scutal vitta reaches the scutellum, and the rest of the scutum also shows presence of tomentum, in *S. unicolor* covering the entire scutum.

The scutellum is also blackish, in two species showing a slight brownish coloration. A paler coloured posterior margin as in *Tropidia* spp. and others is never present. The pile is pale or black, short or long, and one or two pairs of stronger subapical setae are usually present. The length of these setae is given in the descriptions.

We have not investigated in detail if there should be characters of importance in the pilosity of the pleura. These are tomentose in various shades, but the ventral part of the katepisternum is non-tomentose and thus blackish in the *vitripennis* species-group and in *S. hova* new species of the *flaviventris* species-group.

The wings

The venation of the *Syritta* wing (figs 2-4) shows only little interspecific variation. The third longitudinal vein (R4+5) terminates before or at wing apex. It is slightly undulating in its apical section, more straight only in *S. rufa* new species (fig. 3). The two marginal veins (M1 and M3+4) have a characteristic curvature in the great majority of species: the basal (or posterior) marginal vein (M3+4) is diverging from



Figures 2-4. Apical half of wing of *Syritta* species. 2: *S. fasciata* (Wiedemann); 3: *S. rufa* new species; 4: *S. leona* new species. In *S. rufa* the cell R4+5 is narrow and pointed; in *S. leona* the apical marginal vein is bow-shaped. The wing of *S. fasciata* represents the great majority of *Syritta* species. Characteristic for the *Syritta* wing is the basal marginal vein which diverges from wing-margin, and the ususal presence of a concavity on apical marginal vein, which reaches vein R4+5 at a nearly right angle.

the wing-margin, whereas the apical (or anterior) marginal vein (M1) is more parallel to the wing-margin, usually with a marked concavity, and reaching vein R4+5 at a nearly right angle. The terminal section of vein R4+5 (the petiole) is longer than the humeral cross-vein. We have observed two autapomorphous conditions for the curvature of the apical marginal vein: in *S. leona* new species (fig. 4) and *S. rufa* new species (fig. 3) the concavity is lost, but *leona* has retained the general curvature of the apical marginal vein, whereas in *rufa* the vein is much more straight and reaches vein R4+5 at an acute angle. The cross-vein R-M is situated slightly before the middle of the discal cell (DM).

The spurious vein is distinct in the majority of *Syritta* species, having a colour and a strength that is equal to the conditions seen in the neighbouring R- and M-veins. It appears that a secondary reduction of the spurious vein has taken place several times. This reduction is not an either-or, as various steps can be observed. One example is found in the *pipiens* species-group, in which 3 species, *S. leona* new species, *S. pipiens* (Linnaeus), and *S. fasciata* (Wiedemann) have a thin but clearly discernable spurious vein whereas in *S. stylata* new species the spurious vein is reduced basally to remnants basally and apically to the knot in anterior basal cell. Another ex-

ample is found in the *flaviventris* species-group of three species. In *S. caboverdensis* new species, the spurious vein appears as a field of microtrichia arranged in several irregular rows. The two other species in the group, *S. hova* new species and *S. flaviventris* Macquart have an indistinct spurious vein. Analogous examples can be found in the *ovalnica* species-group, the *vitripennis* species-group, and the *latitarsata* species-group, see the descriptions.

The ground colour of the wing is hyaline, or the wing is tinged greyish or brownish; but there is never a particular pattern. The stigma is yellowish to brownish, in some species very indistinct. It never reaches the apex of the subcostal (stigmal) cell, and the cell does not possess extra cross-veins toward apex.

The provision of microtrichia shows great interspecific differences, even between phylogenetically closely related species. We have described the microtrichial cover of the part of the wing apical to cross-vein R-M. A number of species has this part of the wing totally covered by microtrichia, but there is a frequent reduction of the microtrichia in the basal parts of the R-cells and cell DM, whereas the part of the wing between the marginal veins and the posterior wing margin always has some microtrichia. The costal cells are usually devoid of microtrichia, but in *S. montana* new species and *S. caboverdensis* new species, both representing basal lineages in their respective species-groups, the apical half of the second costal cell has microtrichia.

The shape of the alula varies from very narrow (fig. 6) to very broad (fig. 5). The microtrichia normally occur only on a posterior strip, leaving the anterior part of its alula bare, but in *S. montana* new species the alula is covered by microtrichia on the entire surface. The condition of the alula is further discussed in the introduction to the *divergata* species-group.

The haltere is whitish to yellowish in all known *Syritta*.

5

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Figures 5, 6. Alula of 5: *Syrita vittata* Portschinsky and 6: *S. pilosa* new species. The vast majority of *Syritta* species has a similar arrangement of the microtriochia; only a few species possess an alula with a nearly complete cover by microtrichia.

The fore and mid legs

The fore and mid legs of *Syritta* have only few characters that are useful for the taxonomist. The most commonly used character is the colour pattern of the femora and tibiae. Most species have uniformly yellow to yellow-brown femora and tibiae, but in a number of species the femora are darker basally than apically, whereas the tibiae are usually more uniformly pale coloured.

We have noticed and described some autapomorphies for individual species or species-groups. The male of *Syritta barbata* new species seems unique in the genus in possessing a long white pilosity on fore and mid trochanters and on mid coxa; it also has a nail-like plate (fig. 142) at the mid-distal margin of tarsomeres 1-3 of both fore and mid leg. The males of the *flaviventris* species-group have spiny black setulae on the ventral surface of the fore trochanter, and one of the species, *S. hova* new species has some ventral, posteriorly directed, subbasal spiny setulae on fore femur. The female of *S. breva* new species can be recognised by its exceptionally long and slender femur and tibia of the mid leg (fig. 110); the male of this species is unknown.

The hind leg

An important part of the characters available for a taxonomic treatment of *Syritta* is associated with the structure of the hind leg. The various parts will be dealt with separately.

The coxa and the trochanter of *S. barbata* new species have a long white pilosity (see above), and the male hind trochanter of *S. vittata* Portschinsky is covered with densely-set, short, black, spiny setulae. Other autapomorphies have not been noticed.

The hind femur of a number of species are illustrated (figs 41-47, 62-64) in colour; they are all shown in anterior view. In the keys and descriptions we deal with the ventral surface, and have distinguished between a ventrobasal section and a ventroapical section (see fig. 64). The ventrobasal section is longer than the ventroapical section in all species examined, as it also appears from the illustrations.

We deal first with the ventroapical section, because we regard its arrangement of setae as being one of the most conspicuous autapomorphies for the genus. There are three elements in the setation of the ventroapical section: in the middle a series of short, black, moderately blunt-tipped setulae which are arranged in an approximately uniserial row, the number of setulae ranging between 18 and 28; we use the term ctenidium for this row. Anterior to the ctenidium is a row of 3 to 7 longer, black, anteroventral setae; as shown in the illustrations. Posterior to the ctenidium (and omitted from all illustrations) is a row of 3 to 6 posteroventral setae. They are usually more slender, but longer than the anteroventral setae and clearly distinguished from the other pilosity of the posterior surface; their colour may be blackish and/or whitish.

So far we have not observed any other syrphid that has a setal arrangement of the hind femoral ventroapical section identical to that of *Syritta*. At hand are three unidentified species from Argentina. They form a species-group that may arguably be considered to be the sister-group to *Syritta*. They have a provision of anteroventral and posteroventral setae as described above for *Syritta*, but the setulae forming

the ctenidium are sharp-tipped and more irregularly arranged, which we regard as a more plesiomorphous state. One of these species has male genitalia that are very similar to the genitalia of a generalised *Syritta*. The species-group differs from *Syritta* in other characters.

It is not a simple task to describe the armature of the ventrobasal section of the hind femur. Several elements are involved in the armature: sharp-tipped black setae and setulae, blunt-tipped black setulae, thin whitish setae, tubercles of various sizes, elevated ventral bumps, and ridges or spinae in an anteroventral and/or posteroventral position. The elements can be arranged in one or two rows, which can produce a considerable complexity; see for example the description of *S. aenigmatopatria* Hardy.

We will first describe the most simple armatures. Based on the composition of the armature the 16 species-groups (see the list of species) can be roughly arranged in three divisions. The first division includes the first four species-groups; together they number 13 species and all are Afrotropical. The hind femora of these species possess an irregularly arranged uniserial row of setulae, are devoid of any thin whitish setae posteroventrally, and are in some species provided with a ventral subbasal bump (figs 41, 44, 46, 47). All species which have a bicoloured femur belong here.

The next six species-groups with a total of 26 species form the second division. In these taxa there is a provision of one to several whitish setae arranged posteroventrally on the middle third of the femur; additional setulae and/or setula-bearing tubercles are present. In the *pipiens* and *indica* species-groups there is only little interspecific variation in this armature.

In the *lanipes* species-group the armature is composed of several very short setulae and the whitish setae are elongate, especially in the male of *S. longiseta* new species. The *hirta* species-group members have a rich ventral pilosity, and sharp-tipped setae appear in both *S. hirta* Curran and *S. decora* Walker which is quite unusual in *Syritta*.

Finally, in the members of the *nigrifemorata* species-group the tubercles bearing the whitish setae are enlarged, which is accompanied by modifications of the corresponding tibiae (see later). The most extreme modification is reached in *S. thompsoni* new species, in which the tubercles are amalgamated into a large ventral knot (see fig. 63). A posteroventral spina is developed in *S. orientalis* Macquart.

The next five species-groups, which contain a total of 16 species, are largely identical with those species-groups in which the spurious vein is different from the neighbouring R- and M-veins. The basic armature in these species-groups is also a number of blunt-tipped setulae, usually towards the apex of the section; thin whitish setae do not occur. A posteroventral subbasal spina occurs in a number of species, but it is replaced by a low transverse ridge in several species. These five species-groups probably do not form a monophyletic group.

We are omitting *S. snyderi* Shiraki and *S. maritima* Hull from this discussion; both have remarkable hind femora (see figs 216 and 64).

A possible autapomorphy for *Syritta* is a curved hind tibia, in which the anteroventral margin forms a sharp edge, a carina. The proximal part of this carina is strengthened by a series of closely set curved spines. In the great majority of species the tibia in lateral view has an almost equal width throughout, or it attains a slightly larger width ¼ to ⅓ before apex.

Two species-groups in particular have autapomorphies related to the hind tibial morphology. In the three species of the *lanipes* species-group, the posterior surface of the hind tibia is provided with remarkable pilosity (see figs 130-132). All six species of the *nigrifemorata* species-group show modifications of the hind tibia in the form of a ventral lamina and – in some of the more advanced species – with an excavation into the ventral tibial surface (see figs 157-162).

Other minor modifications have also been noticed: *S. stigmatica* Loew has one or several low laminae on the ventral subapical surface. *S. oceanica* Macquart and *S. flaviventris* Macquart (fig. 197) both have a distinct laminate extension of the anteroventral carina in the apical half. In *S. dilatata* Keiser (fig. 202), an extension of the dorsal surface is obvious, and *S. latitarsata* Macquart has a combination of a dorsal extension and an anteroventral lamina.

The tarsomeres of the hind leg have not been described for the species, but in the *flaviventris* species-group they offer valuable taxonomic assistance (see figs 35-37). Also noteworthy are the remarkably dilated hind tarsomeres of *S. latitarsata* Macquart (see figs 206, 207), and the dilation of the apical hind tarsomeres of *S. dilatata* Keiser (fig. 203).

The abdomen

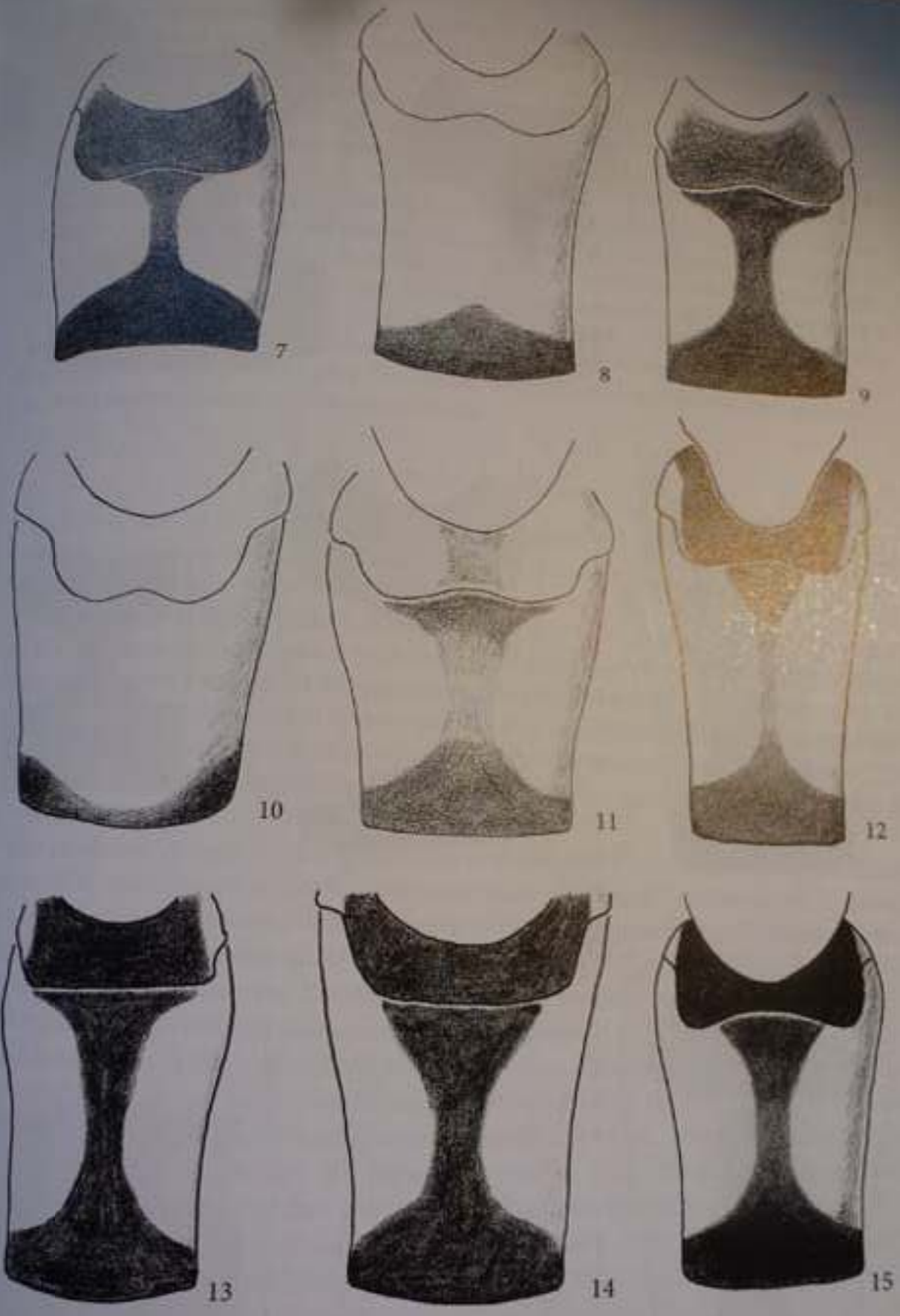
The pattern of the four ordinarily-shaped abdominal tergites of the males offers important diagnostic characters. Tergum 1 contains a tongue-shaped medial part which is inserted into tergum 2 (figs 7-23). The boundary between the two terga is indistinct and is very exaggerated in the illustrations; in fact the dark pattern of tergum 1 and the anterior part of tergum 2 form a unit.

The basic dark-coloured element in the pattern of tergum 2 is a posterior fascia of varying width, laterally occupying from about one-tenth (fig. 20 of *S. flaviventris* Macquart) to nearly one-half (fig. 21 of *S. dilatata* Keiser) of the tergal length. The posterior fascia widens towards the midline and may often continue as a median vitta that widens toward anterior margin where it forms a more or less well developed anterior fascia. The dark pattern may be greatly reduced in a number of species (figs 8, 10, 11, 23). In the *vitripennis* species-group (fig. 19) the dark median vitta is very wide and confluent with the anterior and posterior fasciae, forming a column-shaped area. The median vitta of *S. latitarsata* Macquart (fig. 22) is very characteristic, more or less parallel-sided and not forming an anterior fascia.

The pattern of tergum 3 is similar to that of tergum 2, i. e. composed of a posterior fascia and a median vitta which usually does not reach the anterior margin; there is never an anterior fascia.

Tergum 4 presents several useful characters. A lateral view of tergum 4 of *S. indica* (Wiedemann) and *S. proximata* new species is shown in figs 60, 61, and illustrates the situation found in the great majority of species: a blackish tergum, usually with some brownish integument posteriorly, and with anterolateral areas of greyish tomentum. These latter areas may reach to the posterior corners, may be reduced to narrow bars most anteriorly, or may even be absent.

The sterna 1-3 have not been studied in detail. The male sternum 4 may have an almost straight posterior margin, but the majority of species have a V-shaped incision



Figures 7-15. Male terga 1 and 2 of *Syritta* species. 7: *S. stuckenbergi* new species; 8: *S. angulata* new species; 9: *S. bulbus* Walker; 10: *S. rufa* new species; 11: *S. tomentosa* new species; 12: *S. stigmatica* Loew; 13: *S. pilosa* new species; 14: *S. hirta* Curran; 15: *S. leucopleura* Bigot.

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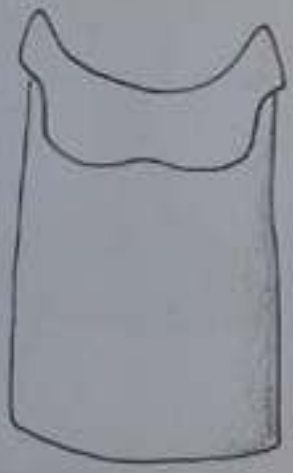

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into the posterior margin. This incision may be partly covered by a membrane, as is seen in *S. noona* new species, *S. montana* new species, and all species of the *oceanica* and *flaviventris* species-groups.

The pattern of the female terga is similar to that of the corresponding male but usually with more extensive dark colour (see the descriptions). In the sterna, we have observed an extraordinarily strong sclerotization of sterna 1-3 in the *pipiens* species-group.

Sternum 4 is usually black, but we have observed an interesting possible synapomorphy for the three species forming the *latitarsata* species-group, as tomentum is present to a varying extent on sternum 4. In the *S. latitarsata* Macquart male, the posterior one-fourth of sternum 4 is tomentose, whereas in the female sternum 4 is polished black. *S. vittata* Portschinsky has a remarkably different segment 4, the tergum with a pair of depressions separated by a black ridge in midline, whereas sternum 4 is entirely tomentose. The female of *S. asiatica* new species has a blackish sternum 4 with a posterior tomentose fascia.

The male genitalia

In the treatment of the male genitalia of *Syritta*, we have focussed our attention on the dorsal elements of segment 9 and associated structures because we found that the ventral elements were of a very uniform structure.

The strongly curved tergite 9, or epandrium, appears to be symmetric or almost so. The length from the anterior to the posterior margin along the midline may show some interspecific variation. Autapomorphous conditions for a species or species-group are few: *S. minuta* new species possesses a weakly sclerotized zone along the midline (fig. 90), and in *S. latitarsata* Macquart we have noticed the presence of a knob near the posteroventral corner of the epandrium (fig. 210). The epandrium is always free of pile.

The posterior margin of the epandrium is moderately concave, and the cerci are inserted in this concavity. Cerci have been illustrated for all species in both lateral and dorsal views. The shape varies between species, but drastic modifications do not occur. With the proposed exclusion from the genus of *S. triangulifera* Keiser (figs 221, 222) and *S. tanalaorum* Keiser (figs 223, 224), we have not observed any movement towards a division of the cercus into two sclerites.

The surstylus is taxonomically the most important element of the male genitalia. It is divided into a dorsal (or posterior) lobe and a ventral (or anterior) lobe. In *Syritta*, these two lobes are always clearly separated, and only in *S. proximata* new species are they approximated though still separated (see fig. 151). The dorsal lobe varies in shape but without attaining the complicated structures found in related genera. Often the pilosity of the median surface is the most distinctive character. This pilosity can only be partly observed in the traditional lateral view, and a different technique

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Figures 16-23. Male terga 1 and 2 of *Syritta* species. 16: *S. orientalis* Macquart; 17: *S. lutei-nervis* de Meijere; 18: *S. oceanica* Macquart; 19: *S. natalensis* new species; 20: *S. flaviventris* Macquart; 21: *S. dilatata* Keiser; 22: *S. latitarsata* Macquart; 23: *S. vittata* Portschinsky.
Figure 24. Female terga 1 and 2 of *S. austeni* Bezzi.

should be used in which one of the surstyli is detached and mounted for a median view, so that the median surface can be seen. Such a technique would also apply in genera like *Merodon* Meigen and *Eumerus* Meigen with their much more complex male genitalia, in which the structure of the "anterior lobes" is an important identification tool.

The ventral (or anterior) surstylar lobe of *Syritta* is a relatively simple structure, never showing pilosity on the inner (median) surface. A fine pale pilosity occurs along the anterior margin; this pilosity is not shown in any of the illustrations because it cannot usually be seen in a liquid environment.

In many species of *Syritta* there is a distinct projection of the posterior margin of the ventral lobe. This projection can offer some assistance in the taxonomy, for example in the *bulbus* species-group. The *pipiens* species-group can be recognised by the presence of a dorso-medially directed hook from the posterodorsal corner of the ventral lobe (see for example fig. 124).

As already mentioned, we have paid only little attention to the ventral elements of the male genitalia because we have found them to be of a very uniform shape. We have noticed that the superior lobes are black, short-oval, and with a row of fine spines (a ctenidium) on the distal margin. There are differences in the relative size of the hood of the ejaculatory apodeme compared with the hood of the aedeagal apodeme. This difference is mentioned in the text for every species (see also figs [illegible]).

The female genitalia

Externally the "ovipositor" appears as a telescopic and weakly sclerotized tube, which is gradually narrowing toward apex; it can be of considerable length, at least as long as half abdominal length. The internal female genital organs have not been investigated.

Distributional notes

The Afrotropical region

There can be little doubt that the genus *Syritta* evolved in Africa, as 13 of the 16 established species-groups have representatives in Africa south of the Sahara. Nearly half of the known *Syritta* species occurs in an area in Central Africa comprising eastern DR Congo, Uganda, Rwanda, Burundi, and NW Tanzania. It is remarkable that only two species possessing autapomorphies in the shape of a ventral spina on the hind femur and at the same time having an indistinct spurious vein are among these 24 species occurring in Central Africa. The first of these species is *S. montana* new species, which we regard as the first branch of the evolutionary tree of the *vitripennis* species-group. The second species is *S. flaviventris* Macquart, a typical "trash" species which has followed the expansion of man to various parts of the world. A considerable number of these Central African species has dispersed over Africa in various directions.

We suppose that dispersals out of the Afrotropical region have played a major role in the evolution of *Syritta*, and that vicariant evolution has mainly taken place locally within a zoogeographical region.

The *pipiens* species-group will be of special interest to many, especially European syrphidologists, because it includes the well-known *S. pipiens* (Linnaeus). This species-group of eight species is clearly monophyletic and has five of its species in Central and southern Africa. The species-group has managed to disperse out of the Afrotropical region to the Palaearctic region and the Oriental region (for more details, see remarks under the various regions).

Another area showing a considerable speciation is southern Africa. Sixteen species are recorded from southern Africa. Nine of these do not occur in Central Africa, but are related to species in eastern Africa. However, the high number of species in southern Africa is probably also a result of the intensive collecting activities of various entolomologists in South Africa.

The Palaearctic region

Syritta is represented in the Palaearctic region by only six species, only one of which, *S. pipiens* (Linnaeus), has managed to occupy a major part of the region. These six species constitute a heterogeneous assemblage, representing three different species-groups.

It is clear that *S. pipiens* and *S. fasciata* (Wiedemann) together with the additional five Afrotropical species and one Oriental species form a monophyletic species-group. The synapomorphies for the species are discussed in the introduction to the species-group. We must imagine a scenario when the Sahara area was green, covered by luxuriant savannas and forests, and inhabited by several species of *Syritta*. During the following period, when the land turned into a desert, some northern populations were separated from the southern populations, and *S. fasciata* evolved in the north-

eastern part of Africa and *S. pipiens* in the north-western part of Africa (nowadays Magreb). The latter species extended its distribution towards the north and east, following the retreat of the European ice-shield, finally and probably first reaching Japan in recent time. *S. fasciata* managed to disperse towards the north to the Middle East and subsequently towards the east to NW India, and also towards the south to eastern and southern Africa. Both species may have been dependent on human activities to a certain degree.

Another species with an apparent association with human settlements is *S. flaviventris* Macquart. It was originally an Afrotropical species which has managed to colonize also the entire Mediterranean subregion and the Middle East towards Iran. It has also been introduced into the Nearctic and Neotropical regions.

The *latitarsata* species-group of three species is composed of a very widely distributed species, *S. latitarsata* Macquart, and two species with more restricted distributions. We believe that *S. latitarsata* evolved in an arid environment in the north-eastern corner of Africa, and from there dispersed toward the east, reaching Pakistani Beluchistan, and also toward the south along the coasts of eastern and southern Africa; also reaching The Gambia. *S. vittata* Portschinsky is a strict Palaearctic species, ranging from South Russia through the Central Asian republics to Iran and Pakistani Beluchistan, here touching the Oriental region. *S. latitarsata* demonstrates a similar pattern. Finally, *S. asiatica* new species is recorded only from southern Tajikistan.

The Oriental and Australian-Pacific regions

These regions are inhabited by 15 species of *Syritta*; representing six species-groups. It is noteworthy that the regions do not have members of the more "primitive" species-groups of *Syritta*, i. e. species-groups I-IV.

The *pipiens* species-group is represented by an endemic species, *S. stylata* new species in southern India, but two other species of this group, *S. pipiens* (Linnaeus) and *S. fasciata* (Wiedemann) touch the Oriental region in the north-western part of India.

The *indica* species-group consists of four species. Two of these, *S. indica* (Wiedemann) and *S. proximata* new species, are strictly Oriental, whereas the other two species, *S. noona* new species and *S. polita* new species, have very restricted distributions in the Papua New Guinea area. The sister-group of the *indica* species-group is not known.

The *nigrifemorata* species-group is one of the best motivated monophyletic species-groups. It occurs with three species in the Afrotropical region and three species in the Oriental-Australian-Pacific regions. *S. aenigmatopatria* Hardy is a very widely distributed species ranging from Indonesia in the west through the northern Pacific to the Hawaiian islands in the east. Its sister-species, *S. hackeri* Klöcker, occurs in Australia and Papua New Guinea. The third species, *S. thompsoni* new species is only known from Taiwan and an island near Java.

S. orientalis Macquart has a unique combination of a distinct spurious vein and the presence of a hind femoral spina. It is a widely distributed species, occurring from India and Sri Lanka in the west to Australia in the south and the Hawaiian islands in the east. Its relationship is unclear.

The *oceanica* species-group, like the *nigrifemorata* species-group, is represented in both the Afrotropical region and the Australian-Pacific regions. It thus seems to have followed a more southern route of dispersal over the southern part of the Indian Ocean compared to the *nigrifemorata* species-group, as it is not present in the Oriental region. It is remarkable that the Afrotropical region is inhabited by eleven species with an indistinct spurious vein, whereas the Oriental region only has one species with an indistinct spurious vein, namely *S. stylata* new species of the *pipiens* species-group in southern India.

S. luteinervis de Meijere is a species of the south-western Pacific, its area of distribution comprising Australia, Papua New Guinea and the Pacific island-groups west of longitude c. 170° E. Its sister-species, *S. oceanica* Macquart, occurs in the island-groups east of that longitude and toward the north to the Hawaiian islands. A third non-Afrotropical species of the *oceanica* species-group is *S. papua* new species, of which only two female specimens are known from the Papua New Guinea area.

Finally, two endemics on isolated oceanic islands are present in the area, namely *S. maritima* Hull on Christmas I. south of Java and *S. snyderi* Shiraki in the Ogasawara archipelago some 1 000 km south-east of the island of Kyushu. The relationship of these species are unknown.

The Nearctic and Neotropical regions

Both *S. pipiens* (Linnaeus) and *S. flaviventris* Macquart are recorded from the regions. Their appearance here is undoubtedly a result of human expansion in historic time.

Check-list of the *Syritta* species of the World

All distributional records are, with a few exceptions, based only on own identifications.

I. The *divergata* species-group

1. *Syritta minuta* new species, ♂ ♀. – DR Congo.
2. *Syritta divergata* new species, ♂. – Mozambique, South Africa, Tanzania, Zimbabwe.
3. *Syritta stuckenbergi* new species, ♂ ♀. – South Africa.
4. *Syritta fusca* new species, ♂ ♀. – South Africa.

II. The *bulbus* species-group

5. *Syritta congoensis* new species, ♂. – DR Congo, Uganda.
6. *Syritta senegalensis* new species, ♂. – Senegal.
7. *Syritta bulbus* Walker, 1849, ♂ ♀. – Burundi, DR Congo, Ivory Coast, Liberia, Mozambique, Nigeria, Rwanda, Sierra Leone, South Africa, Swaziland, Tanzania, Upper Volta, Zimbabwe.
   Syritta bulbulus Speiser, 1913.
8. *Syritta angulata* new species, ♂ ♀. – Kenya, South Africa, Zimbabwe.
9. *Syritta rufa* new species, ♂ ♀. – South Africa.

III. The *tomentosa* species-group

10. *Syritta tomentosa* new species, ♂ ♀. – Cameroon, DR Congo, Liberia, Nigeria, Sierra Leone.
11. *Syritta unicolor* new species, ♀. – Cameroon, DR Congo, Gabon, Uganda.
12. *Syritta breva* new species, ♀. – Cameroon, DR Congo, Ghana, Kenya, Uganda.

IV. The *stigmatica* species-group.

13. *Syritta stigmatica* Loew, 1858, ♂ ♀. – Burundi, DR Congo, Ethiopia, Lesotho, Malawi, Mozambique, Rwanda, South Africa, St. Helena, Swaziland, Tanzania, Uganda, Zimbabwe.
    Syritta pleuritica Speiser, 1910.

V. The *pipiens* species-group

14. *Syritta incrassata* new species, ♂. – DR Congo.
15. *Syritta cerca* new species, ♂. – DR Congo.
16. *Syritta similis* new species, ♂. – DR Congo.
17. *Syritta dentata* new species, ♂ ♀. – South Africa.
18. *Syritta leona* new species, ♂ ♀. – Angola, Burundi, Cameroon, DR Congo, Gambia, Ghana, Nigeria, Sierra Leone, South Africa, Uganda, Zambia.
19. *Syritta pipiens* (Linnaeus, 1758), ♂ ♀. – Palaearctic and Nearctic regions. Also touching the Oriental region in NW India and western Pakistan.

Xylota proxima Say, 1824.
Syritta obscuripes Strobl, 1899.
Syritta albicincta Santos Abreu, 1924.
Syritta vicina Szilády, 1940.
Syritta flavicans Szilády, 1940.
Spheginoides tenofemora Dzhafarova, 1974.

20. *Syritta fasciata* (Wiedemann, 1830), ♂♀. – Afrotropical region: Botswana, Burundi, DR Congo, Eritrea, Ethiopia, Kenya, Namibia, Malawi, Mozambique, South Africa, Swaziland, Tanzania, Zimbabwe; Palaearctic region: Egypt, Iran, Israel, Lebanon, United Arab Emirates, Yemen. Also NW India.
Syritta abyssinica Rondani, 1873. New synonym.
Syritta subtilis Becker, 1903. New synonym.
21. *Syritta stylata* new species, ♂♀. – India.

VI. The *lanipes* species-group

22. *Syritta longiseta* new species, ♂♀. – Cameroon, DR Congo, Kenya, Liberia, Malawi, Mozambique, Nigeria, South Africa, Swaziland, Tanzania, Uganda.
23. *Syritta lanipes* Bezzi, 1921, ♂♀. – DR Congo, Uganda.
24. *Syritta pilosa* new species, ♂. – Uganda.

VII. The *hirta* species-group

25. *Syritta hirta* Curran, 1939, ♂♀. – Cameroon, DR Congo, Liberia, Nigeria, Senegal.
26. *Syritta vockerothi* new species, ♂♀. – DR Congo, Uganda.
27. *Syritta barbata* new species, ♂. – DR Congo, Tanzania.
28. *Syritta decora* Walker, ♂♀. – Mauritius, Réunion.

VIII. The *indica* species-group.

29. *Syritta indica* (Wiedemann, 1824), ♂♀. – China, India, Nepal, Philippines, Sri Lanka, Taiwan, Vietnam.
S. rufifacies Bigot, 1883.
S. femorata Sack, 1913.
30. *Syritta proximata* new species, ♂♀. – India, Sri Lanka.
31. *Syritta noona* new species, ♂♀. – Papua New Guinea.
32. *Syritta polita* new species, ♂♀. – Papua New Guinea.

IX. The *nigrifemorata* species-group

33. *Syritta nigrifemorata* Macquart, 1824, ♂♀. – Mauritius, Réunion, Seychelles (Aldabra).
34. *Syritta leucopleura* Bigot, 1859, ♂♀. New status – Chad, DR Congo, Gambia, Kenya, Madagascar, Malawi, Mozambique, Senegal, South Africa, Tanzania.
Syritta tuberculifera Keiser, 1971.
35. *Syritta austeni* Bezzi, 1915, ♂♀. – Burundi, Cameroon, Chad, DR Congo, Gambia, Ghana, Kenya, Liberia, Nigeria, Senegal, Uganda.
36. *Syritta aenigmatopatria* Hardy, 1964, ♂♀. New status. – Hawaii Is, Indonesia, Mariani Is, Palaus Is, Philippines, Samoa, Vietnam.

37. *Syritta hackeri* Klöcker, 1924, ♂ ♀. – Australia, Papua New Guinea.
38. *Syritta thompsoni* new species, ♂. – Indonesia, Taiwan.

X. The *orientalis* species-group
39. *Syritta orientalis* Macquart, 1842, ♂ ♀. – Australia, Caroline Is, China, Fiji Is, Guam, Hawaii Is, India, Indonesia, Malaysia, New Caledonia, Palaus Is, Papua New Guinea, Philippines, Solomon Is, Sri Lanka, Thailand, Vietnam.
?Senogaster lutescens Doleschall, 1856.
?Syritta amboinensis Doleschall, 1858.
Syritta illucida Walker, 1859. New synonym.

XI. The *oceanica* species-group.
40. *Syritta londti* new species, ♂. – South Africa.
41. *Syritta albopilosa* new species, ♂ ♀. – Tanzania.
42. *Syritta luteinervis* de Meijere, 1908, ♂ ♀. New status. – Australia, Loyalty Is, New Caledonia, Papua New Guinea, Solomon Is, Vanuatu.
43. *Syritta oceanica* Macquart, 1855, ♂ ♀. – Cook Is, French Polynesia, Hawaii Is, Marquesas Is, Society Is.
Syritta occanica Macquart, 1855, misspelling.
44. *Syritta papua* new species, ♂. – Papua New Guinea.

XII. The *vitripennis* species-group
45. *Syritta montana* new species, ♂ ♀. – DR Congo, Uganda.
46. *Syritta vitripennis* Bigot, 1885, ♂ ♀. – South Africa.
47. *Syritta carbonaria* new species, ♂. – Kenya.
48. *Syritta natalensis* new species, ♂ ♀. – South Africa, Zimbabwe.

XIII. The *flaviventris* species group
49. *Syritta caboverdensis* new species, ♂ ♀. – Cape Verde Is.
50. *Syritta hova* new species, ♂ ♀. – Kenya, Madagascar.
51. *Syritta flaviventris* Macquart, 1842, ♂ ♀. – Widespread in Afrotropical region. Also widespread in the Mediterranean part of the Palaearctic region, toward the east to Iran. Introduced by man into the Nearctic and Neotropical regions.
Syritta nigricornis Macquart, 1842.
Syritta spinigera Loew, 1848.
Syritta albifacies Bigot, 1859.
Syritta aculeipes Schiner, 1868.
Syritta spinigerella Thomson, [1869].
Syritta armipes Thomson, [1869].
Austrosyritta cortesi Marnef, 1967.

XIV. The *dilatata* species-group.
52. *Syritta dilatata* Keiser, 1971, ♂ ♀. – Madagascar.

XV. The *latitarsata* species-group.

53. *Syritta latitarsata* Macquart, 1842, ♂♀. – Angola, Egypt, Eritrea, Gambia, Israel, Namibia, Pakistan, South Africa, United Arab Republics.
54. *Syritta vittata* Portschinsky, 1875, ♂♀. – Iran, Pakistan, Kazakhstan, Russia, Turkmenistan.
55. *Syritta asiatica* new species, ♀. – Tajikistan.

XVI. The *snyderi* species-group.

56. *Syritta snyderi* Shiraki, 1963, ♂♀. – Ogasawara-shoto (= Bonin I.).
57. *Syritta maritima* Hull, 1944 ♀. – Christmas I. (Indian Ocean).

XVIII. Species incerta sedis

58. *"Syritta" tanalaorum* Keiser, 1971, ♂♀. – Madagascar.
59. *"Syritta" triangulifera* Keiser, 1958, ♂. – Sri Lanka.
60. *Syritta sejuncta* Walker, 1849. – Senegal?

Key to species of *Syritta*, males

The male sex is unknown of the following 5 species: from Africa: *Syritta unicolor* new species, and *S. breva* new species; from the Pacific region: *S. maritima* Hull, and *S. papua* new species; from the Palaearctic region: *S. asiatica* new species.

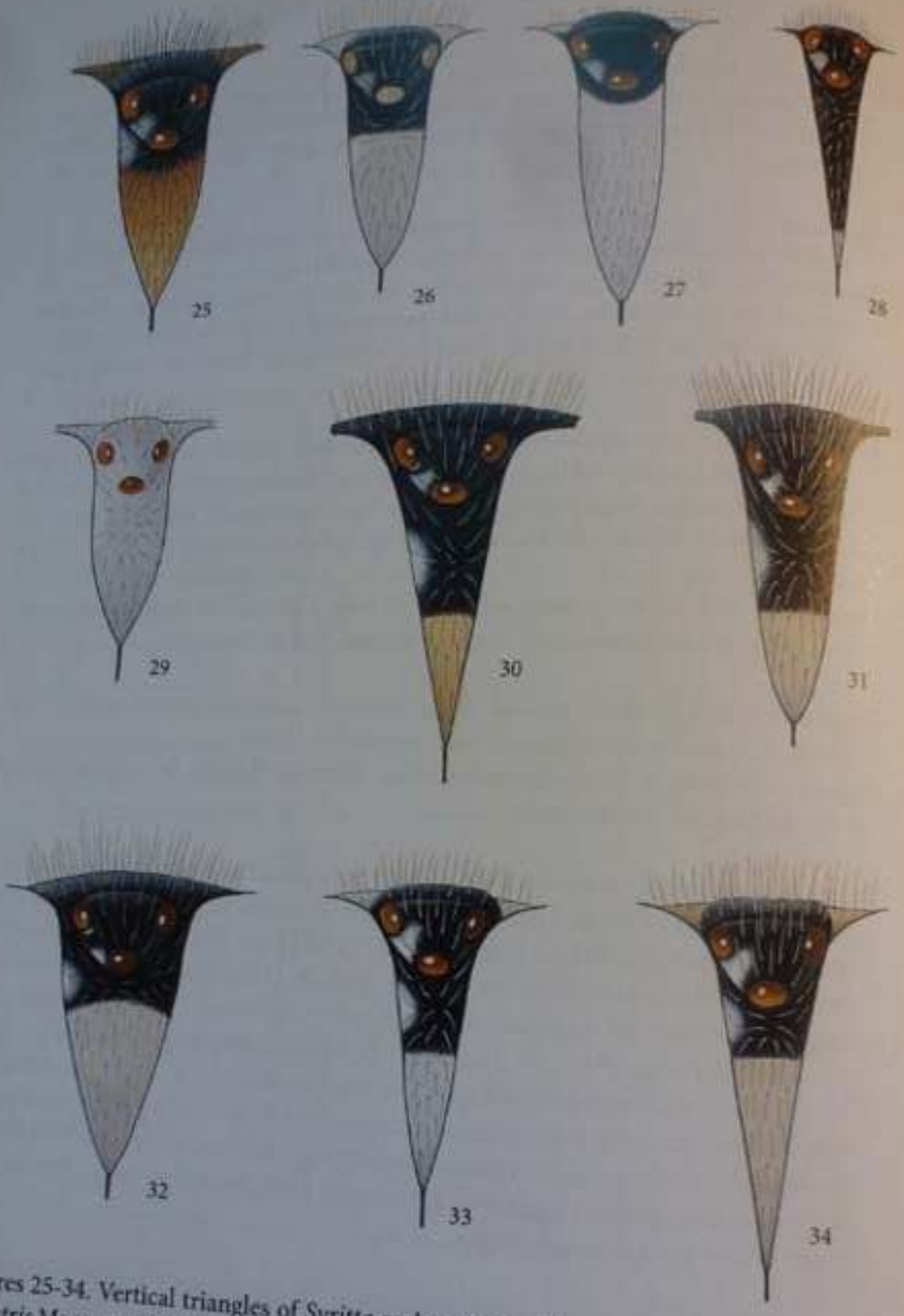
1 Spurious vein is a well sclerotised structure as distinct as the neighbouring R- and M-veins, although it may be thinner than these 16
– Spurious vein differs from neighbouring R- and M-veins: either is a shadow formed by microtrichia, or is a thin incomplete line, or is undiscernable; if spurious vein is very thin but discernable then hind femur is strongly concave 2

2 Hind femur with a posteroventral row of 4 or 5 thin whitish setae about as long as hind tibia is wide; without any trace of a subbasal posteroventral spina or elevated area. Spurious vein appears as a thin line basally and apically to the knot in anterior basal cell. Epandrium with appendages as in figs 128-129. Indian ..... *S. africana* new species (p. 103)
– Hind femur without such setae, and usually with a distinct subbasal posteroventral spina or an elevated area bearing setulae. Not Indian 3

3 Tergum 2 with a blackish medial vitta. Fore trochanter on ventral surface with short, thin, pale setulae; usually without black setulae 6
– Tergum 2 without a blackish medial vitta. Fore trochanter on ventral surface with some short black setulae 4

4 Ridge for a potential position of a spurious vein covered by several rows of microtrichia. Part of wing distal to cross-vein R-M densely and uniformly covered by microtrichia. Hind femur (fig. 62) and hind tibia (fig. 196) both slenderly built, the tibia with a low lamina apically. Hind basotarsomere (fig. 35) long and slender, its posterobasal hump only indicated. Epandrium with appendages as in figs 198, 199 ..... ***S. caboverdensis* new species** (p. 184)
– Ridge for a potential position of a spurious vein hyaline; only single microtrichia may be present. Part of wing distal to cross-vein R-M with a poorly developed cover of punctiform microtrichia. Hind femur and hind tibia (fig. 197) wider, the tibia with a distinct lamina in apical part. Hind basotarsomere (figs 36, 37) short, with a posterobasal hump 5

5 Katepisternum uniformly greyish tomentose. Tomentum of lower vertical triangle (fig. 26) whitish grey. Eye contiguity short. Ventral surface of fore femur usually without black subbasal setulae. Tomentose anterolateral areas of tergum 4 occupy about half of the lateral tergal margin. Epandrium with appendages as in figs 200, 201 ..... ***S. flaviventris* Macquart** (p. 190)



Figures 25-34. Vertical triangles of *Syritta* males. 25: *S. caboverdensis* new species; 26: *S. flaviventris* Macquart; 27: *S. latitarsata* Macquart; 28: *S. dilatata* Keiser; 29: *S. vittata* Portschinsky; 30: *S. natalensis* new species; 31: *S. vitripennis* Bigot; 32: *S. albopilosa* new species; 33: *S. luteinervis* de Meijere; 34: *S. oceanica* Macquart. All species illustrated on this page belong to species-groups in which the structure of the spurious vein is deviating (see the key).

– Katepisternum greyish tomentose on dorso-posterior area ventral to anepimeron; more ventrally a triangular coal-black area which is semishining. Tomentum of lower vertical triangle brownish. Eye contiguity long. Ventral surface of fore femur with 2-4 short, black subbasal setulae. Tomentose anterolateral areas of tergum 4 occupy only c. 1/6 of the lateral tergal margin ..... ***S. hova* new species** (p. 188)

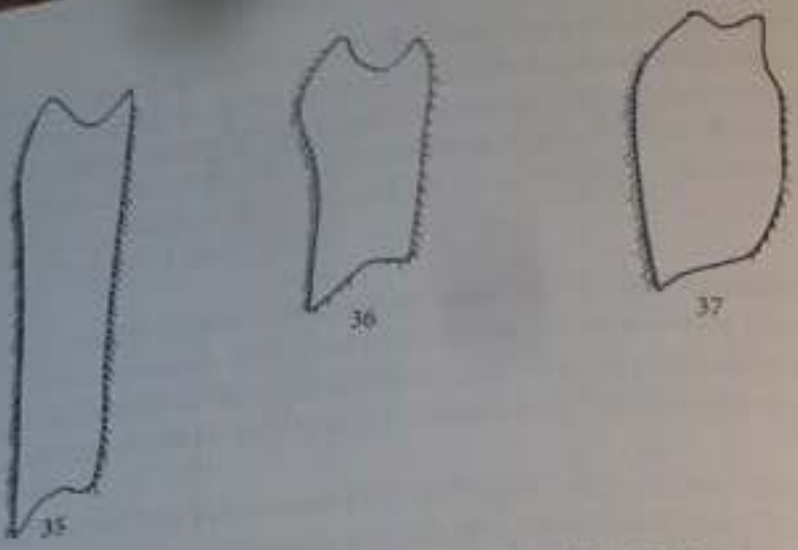
6 All tarsomeres of hind leg of same uniform and slender shape. Hind femur with a subbasal posteroventral spina, or at least with an elevated ridge 8
– Either all tarsomeres of hind leg are broadened and flattened, or only tarsomeres 3-5 are broadened and blackened. Hind femur without a subbasal spina 7

7 All tarsomeres of hind leg (figs 206, 207) broadened and flattened, dorsal surface being concave. Scutal vitta not sharply delimited dorsally. Vertical triangle (fig. 27) parallel-sided, with extensive tomentum. Epandrium with appendages as in figs 210-213 ..... *S. latitarsata* Mesquart (p. 197)
– Tarsomeres 3-5 of hind leg (fig. 203) broadened, flattened, and blackish. Scutal vitta sharply delimited dorsally. Vertical triangle (fig. 28) narrow, black with a small dot of tomentum below. Epandrium with appendages as in figs 204, 205 ..... *S. dilutata* Keiser (p. 194)

8 Scutal vitta not sharply delimited dorsally, as tomentum spreads onto disc of anterior scutum. Vertical triangle (fig. 29) tomentose to posterior ocelli. Hind femur markedly concave in basal half; with a strong subbasal posteroventral spina. Epandrium with appendages as in figs 214, 215 ..... ***S. vittata* Portschinsky** (p. 200)
– Scutal vitta sharply delimited dorsally. Tomentum of vertical triangle does not reach anterior ocellus. Hind femur straight or at most slightly concave in basal half; with or without a subbasal posteroventral spina 9

9 Katepisternum uniformly greyish tomentose. Black pattern of tergum 2 (figs 17, 18) composed of a posterior and an anterior fascia united via a more or less parallel-sided vitta 13
– Katepisternum greyish tomentose only on dorso-posterior area ventral to anepimeron, whole ventro-anterior area coal-black and semishining. Black pattern of terga 1 and 2 (fig. 19) appears as a wide, column-shaped vitta from anterior to posterior margin, having concave margins 10

10 Entire wing, including alula, covered by a dense layer of microtrichia. Upper vertical triangle, upper occipital margin, and scutum dulled by a dark brown tomentum. Hind femur with a long, blunt-tipped spina that erects at a right angle. Hind tibia only darkened at apex. Epandrium with appendages as in figs 188, 189 ..... ***S. montana* new species** (p. 174)
– Wing, especially its basal and median parts, nearly free of microtrichia; alula (as usual in *Syritta*) with microtrichia in a strip along posterior margin. Vertical triangle, upper occipital margin, and scutum blackish, subshining to shining.



Figures 35-37. Hind basotarsomeres in dorsal view of males of the *Syritta flaviventris* species-group. 35: *S. caboverdensis* new species; 36: *S. flaviventris* Macquart; 37: *S. hova* new species.

Hind femoral spina, if present, erects at an oblique angle. Hind tibia darkened both basally and apically 11

11 Hind femur with a low transverse ridge in a posteroventral position and situated c. 2 times hind tibial width from femoral base. Vertical triangle: fig. 30. Epandrium with appendages as in figs 194, 195 .. ***S. natalensis* new species** (p. 181)

– Hind femur with a well developed posteroventral spina in some distance from femoral base, and erecting at an oblique angle 12

12 Spina of hind femur relatively short, c. 125 µm, and cone-shaped. Marginal scutellar setae blackish. Tomentose area and blackish area of vertical triangle of equal length (fig. 31). Epandrium with appendages as in figs 190, 191..... ***S. vitripennis* Bigot** (p. 176)

– Spina of hind femur longer, c. 250 µm, and cylindrical. Marginal scutellar setae weak and pale. Tomentose area of vertical triangle twice as long as blackish area. Epandrium with appendages as in figs 192, 193 ..... ***S. carbonaria* new species** (p. 179)

13 Hind femur bicoloured: basal 3/4 yellow-brown, apical 1/4 dark brown, with a slightly elevated area at the usual position of the subbasal posteroventral spina. Fore and mid femora uniformly yellow-brown. Median vitta of tergum 2 narrow and indistinctly demarcated. Epandrium with appendages as in figs 180, 181..... ***S. londti* new species** (p. 160)

– Hind femur uniformly shining black, with a well developed subbasal posteroventral spina. Fore and mid femora markedly darker basally than apically. Median vitta of tergum 2 (figs 17, 18) 1/5 to 1/3 as wide as tergum, and well demarcated..... 14

14 Vertical triangle (fig. 32) very wide: distance from anterior ocellus to eye-margins longer than width of ocellus. Epandrium with appendages as in figs 182, 183. Afrotropical ..... ***S. albopilosa* new species** (p. 162)
– Vertical triangle (figs 33, 34) narrower: distance from anterior ocellus to eye-margins shorter than width of ocellus. Australian-Pacific 15

15 Wing in direct view: entire surface hyaline without any trace of a spurious vein; stigma pale yellow; apical part of wing with a very poor provision with punctiform microtrichia. Tergum 2 (fig. 17) with a restricted distribution of the blackish colour. Tomentum of face, lower vertical triangle, and pleura has a pure ash-grey colour. Epandrium with appendages as in figs 184, 185 ..... ***S. luteinervis* de Meijere** (p. 165)
– Wing in direct view: spurious vein appears as a brown shadow upon which are arranged elongate microtrichia; entire surface has a brownish tinge; stigma dark brown; apical part of wing with an uniformly dense cover by well developed microtrichia. Tergum 2 (fig. 18) with a more extensive distribution of the blackish colour. Tomentum of face, lower vertical triangle, and pleura has a yellowish grey colour. Epandrium with appendages as in figs [illegible] ..... S. occultus [illegible]

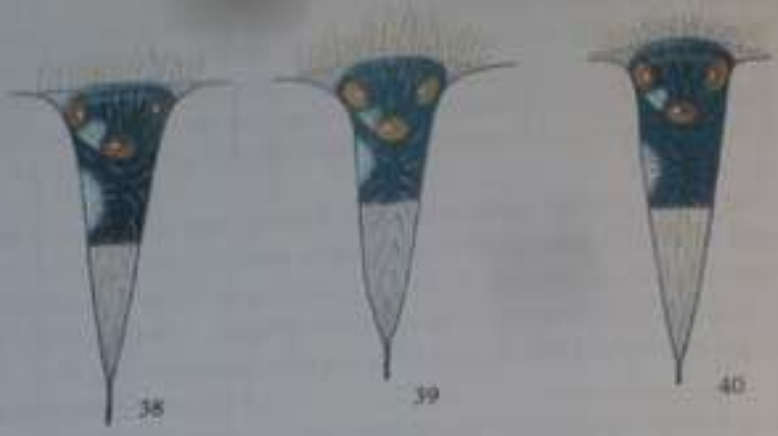
16 Ventrobasal section of hind femur (fig. 216) long and strongly curved, with thin pale setae, without an armature in the shape of a spina or tubercles bearing setulae. Ventroapical section of hind femur with a strong pre-ctenidial spina and a strong subapical posteroventral spina, the tibial apex being embraced by the two spinae ..... ***S. snyderi* Shiraki** (p. 205)
– Hind femur without such spinae 17

17 Ventral surface of hind tibia unmodified, except for a sharp and continuous anteroventral carina 23
– Ventral surface of hind tibia (figs 157-164) modified: around middle with a more or less deep excavation, the anteroventral carina forming a prominent lamina 18

18 Afrotropical species 21
– Oriental-Australian-Pacific species 19

19 Hind femur (fig. 63) on ventral surface with a large knot at middle; corresponding tibia (fig. 160) with a deep excavation opposite this knot. Epandrium with appendages as in figs 175, 176 ..... ***S. thompsoni* new species** (p. 154)
– Hind femur without a large knot at middle, with a smaller subbasal knot and/or a moderately large posteroventral spina a little further from base. Hind tibia (figs 157-159) more moderately excavated, forming a posteriorly situated lamina .. 20

20 Scutellum more or less leather-brown, colour clearly different from blackish scutum. Fore and mid femora yellowish brown. Hind femur usually yellow-brown, frequently with a darker brown ventroapical area. Lamina of hind tibia (fig. 161) is restricted to the third 1/4 of the tibia. Tergum 2 with a complete black-



Figures 38–40. Vertical triangles of *Syritta* males. 38: *S. leucopleura* Bigot; 39: *S. longiseta* new species; 40: *S. hirta* Curran. These three species have very similar vertical triangles and can only be separated by characters dealing with the hind leg structure.

ish median vitta of c. 1/4 tergal width. Epandrium with appendages as in figs 173, 174 ..... ***S. hackeri* Klöcker** (p. 152)

– Scutellum black, concolorous with scutum. Fore and mid femora yellowish brown, with basal 1/5 to 1/3 dark brown to blackish. Hind femur uniformly blackish. Lamina of hind tibia (fig. 162) stretches onto apical 1/4 of the tibia. Tergum 2 without a complete dark median vitta. Epandrium with appendages as in figs 171, 172..... ***S. aenigmatopatria* Hardy** (p. 148)

21 Hind tibia (fig. 159) with a tooth-like lamina c. 1/3 of tibial length before apex. Subbasal section of hind femur with 2 or 3 subbasal ventral tubercles, each bearing a setula; around middle of the femur two large posteroventral tubercles, each with a long white seta. Basoflagellomere elongate, c. 0.5 mm long. Epandrium with appendages as in figs 169, 170 ..... ***S. austeni* Bezzi** (p. 145)

– Hind tibia (figs 157, 158) with a lobe-shaped lamina that disappears into the ventral tibial surface. Subbasal section of hind femur with a row of 5 to 7 anteroventral tubercles, each bearing a setula; around middle of the femur 2 to 4 moderately large tubercles, each with a white seta. Basoflagellomere c. 0.4 mm long 22

22 Fore and mid femora blackish except for apical 1/5 which is yellow-brown. Hind femur without setulae at posteroventral base. Epandrium with appendages as in figs 165, 166 ..... ***S. nigrifemorata* Macquart** (p. 137)

– Fore and mid femora yellow-brown to red-brown, rather uniformly coloured. Hind femur with a couple of fine setulae at posteroventral base. Epandrium with appendages as in figs 167, 168 ..... ***S. leucopleura* Bigot** (p. 141)

23 Hind tibia with a short inconspicuous pilosity on posterior surface. Alula 2-3 times as long as wide. Usually 4, rarely 5 or 6, black posteroventral setae before apex of hind femur 26

– Hind tibia (figs 130-132) with a pilosity of thin, whitish and/or blackish, elongate setae on posterior surface, either for whole length (fig. 132), for about apical half (fig. 131), or at apex only (fig. 130). Alula (fig. 6) narrow, about 4-5 times as long as wide. Usually only 3, blackish and/or whitish, posteroventral setae before apex of hind femur (*S. lanipes* species-group) 24

24 Hind tibia (fig. 132) with elongate pilosity along entire posterior surface. Ctenidium of hind femur short, only occupying about 1/4 of femoral length. Epandrium with appendages as in figs 137, 138 ..... *S. pilosa* **new species** (p. 114)

– Hind tibia (figs 130, 131) with elongate pilosity on posterior surface for apical half, or at apex only. Ctenidium of hind femur longer, occupying about 1/3 of femoral length 25

25 Hind tibia (fig. 130) with some moderately elongate setae on posterior surface before apex. Oral margin level with frontal prominence. Epandrium with appendages as in figs 133, 134 ..... *S. longiseta* **new species** (p. 107)

– Hind tibia (fig. 131) with elongate setae on posterior surface for apical half. Oral margin projects beyond frontal prominence. Epandrium with appendages as in figs 135, 136 ..... *S. lanipes* **Bezzi** (p. 112)

26 Posteroventral surface of hind femur either with 4-6 long thin whitish setae standing on tubercles, or with some scattered and short pale setae. Usually 3 or 4 posteroventral setae before apex of hind femur 30

– Ventral surface of hind femur with a dense pilosity of hair-like whitish setae. Hind femur with 5 or 6 posteroventral setae before apex (*S. hirta* species-group) 27

27 Pleura with dorso-ventrally arranged black and yellow-grey fasciae. Two pairs of long scutellar setae. Large species: c. 10 mm. Epandrium with appendages as in figs 147, 148 ..... ***S. decora* Walker** (p. 123)

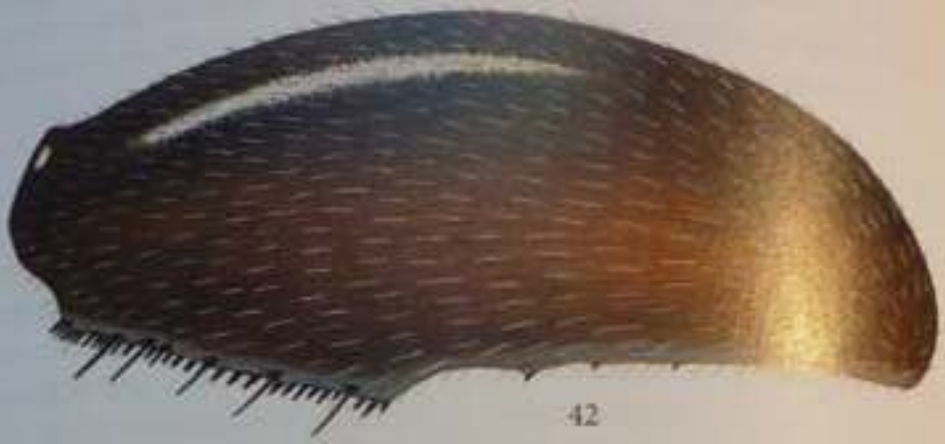
– Pleura uniformly tomentose. One pair of short scutellar setae, if any. 7-8 mm .. 28

28 Apex of fore and mid coxae, all trochanters, and metasternum with a pilosity composed of long thin white setae. Tarsomeres of fore leg (fig. 142) broadened and provided with a nail-like elevation at middle of distal margin. Epandrium with appendages as in figs 145, 146 ..... ***S. barbata* new species** (p. 122)

– Pilosity of coxae, trochanters and metasternum normal. Tarsomeres of fore leg (fig. 143) normal 29

29 Armature of ventrobasal section of hind femur composed of 8-12 blunt-tipped or sharp-tipped black setulae, the sharp-tipped being the longest and the most posteriorly arranged; none of them are situated on tubercles. Epandrium with appendages as in figs 139, 140 ..... ***S. hirta* Curran** (p. 117)

41



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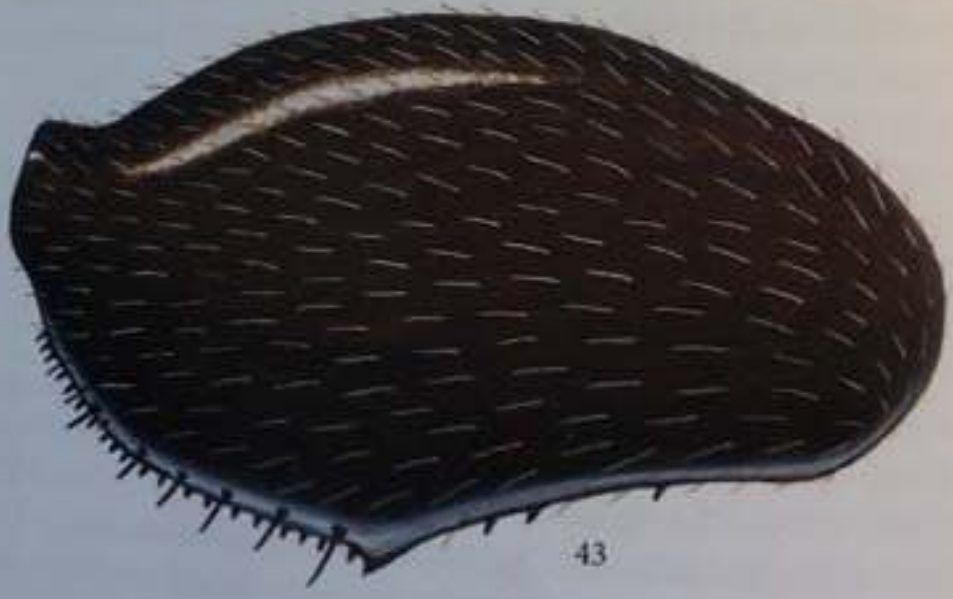

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Figures 41-43. Right hind femora in anterior view of *Syritta* species. 41: *S. minuta* new species; 42: *S. stigmatica* Loew; 43: *S. incrassata* new species. These species have a hind femur with a poor provision with armature on the ventrobasal part.

Figures 44-47. Right hind femora in anterior view of *Syritta* species. 44: *S. tomentosa* new species; 45: *S. breva* new species; 46: *S. congoensis* new species; 47: *S. bulbus* Walker. Three of the species (44, 46, 47) demonstrate the presence of a ventral subbasal spina, which is probably not homologous to the posteroventral spina present in a number of species belonging to the species-groups with a deviating spurious vein.

– Armature of ventrobasal section of hind femur composed of 5 or 6 blunt-tipped setulae situated on minute tubercles. Epandrium with appendages as in figs 143, 144 ..... ***S. vockerothi* new species** (p. 126)

30 Scutum with a tomentose lateral vitta from postpronotum to scutellum. Afrotropical ..... ***S tomentosa* new species** (p. 72)
[The unknown males of *S. unicolor* new species and *S. breva* new species will probably come out here.]
– Scutum with tomentose lateral vitta only to suture 31

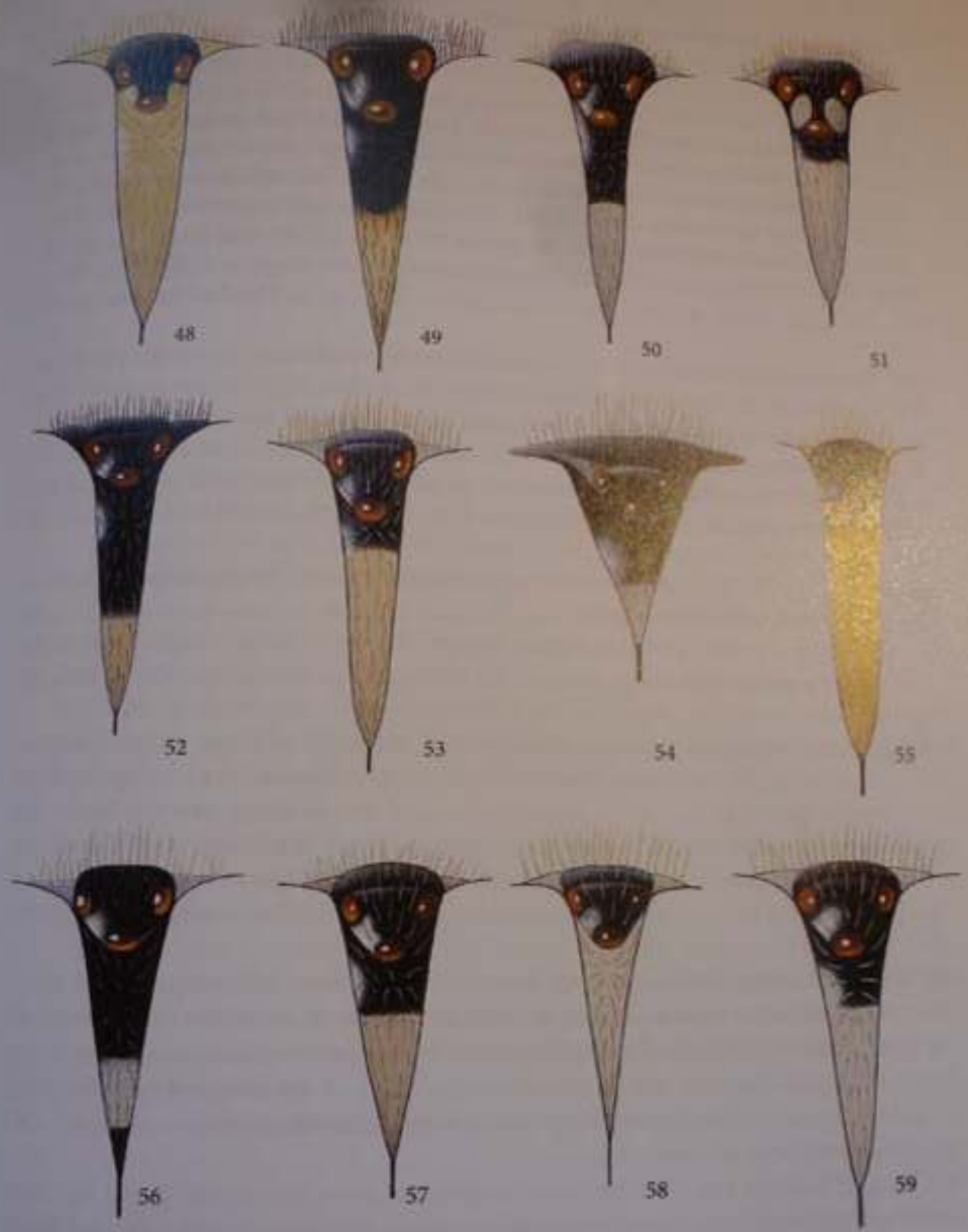
31 Armature of ventrobasal part of hind femur (fig. 41-43) does not include a subbasal ventral structure of substantial size, or if such a structure is present it does not distinguish in size or shape from the other structures of the ventrobasal surface [but notice presence of a micro-bump in *S. minuta* new species, fig. 41] 37
– Armature of ventrobasal part of hind femur (figs 46, 47) includes a ventral or posteroventral structure in the shape of a bump, a tubercle, a spina, or a ridge; in any case this structure clearly distinguishes from the other elements of the ventrobasal section 32

32 Subbasal spina of hind femur cone-shaped and arranged in a posteroventral position. Coloration of hind femur variable. Epandrium with appendages as in figs 177-179. Oriental-Australian-Pacific ..... ***S. orientalis* Macquart** (p. 157)
– Subbasal bump, tubercle, or ridge of hind femur arranged in a true ventral position. Afrotropical 33

33 Hind femur (fig. 47) bicolorous: yellow to yellow-brown in basal part, and brownish to blackish in apical part 36
– Hind femur (fig. 46) unicolorous dark brown to blackish, at most with a slightly paler band at middle 34

34 Tergum 1 (fig. 8) uniformly yellow-brown. Terga 2 and 3 yellow-brown, with a more or less distinct posterior fascia; a median vitta does not occur. Vertical triangle: fig. 49. Epandrium with appendages as in figs 104, 105 ..... ***S. angulata* new species** (p. 67)
– Tergum 1 predominantly brown-black. Terga 2 and 3 with a blackish posterior fascia and a similarly coloured median vitta 35

35 Vertical triangle (fig. 50) with a ratio between tomentose lower area and blackish upper area (to anterior ocellus) of c. 3.0/2.5. Ocellar plate shining black. Subbasal hind femoral tubercle (fig. 46) arranged in good distance from femoral base. Epandrium with appendages as in figs 99, 100 ..... ***S. congoensis* new species** (p. 61)
– Vertical triangle (fig. 51) with a ratio between tomentose lower area and blackish upper area of c. 4.5/1.0. Ocellar plate with pair of tomentose areas. Subbasal armature of hind femur just a ridge, and positioned close to femoral base.



Figures 48-59. Vertical triangles of *Syritta* males. 48: *S. tomentosa* new species; 49: *S. angulata* new species; 50: *S. congoensis* new species; 51: *S. senegalensis* new species; 52: *S. rufa* new species; 53: *S. bulbus* Walker; 54: *S. stuckenbergi* new species; 55: *S. minuta* new species; 56: *S. divergata* new species, 57: *S. stigmatica* Loew; 58: *S. polita* new species; 59: *S. indica* (Wiedemann).

Epandrium with appendages as in figs 101, 102 ..... *S. senegalensis* **new species** (p. 63)

36 All terga (fig. 10) orange-yellow, with a very restricted blackish pattern. Apical marginal vein (fig. 3) nearly straight, and also vein R4+5 straight, resulting in a cell R4+5 of characteristic shape. Vertical triangle: fig. 52. Epandrium with appendages as in figs 128, 129 ..... *S. rufa* **new species** (p. 70)

– Terga with the usual pattern of yellow and black. Apical marginal vein and vein R4+5 undulated as usual in the genus (as in fig. 2). Vertical triangle as in fig. 53. Hind femur as in fig. 47. Epandrium with appendages as in figs 103, 104 ..... *S. bulbus* **Walker** (p. 65)

37 Tergum 2 yellowish, without – or with just an indication of – a dark median vitta; if with a narrowly diamond-shaped vitta (in *S. polita* new species) then without tomentose anterolateral areas on tergum 4. In the Oriental region and the New Guinean subregion 49

– Tergum 2 yellowish, with a brownish to blackish median vitta. Mainly in the Afrotropical and Palaearctic regions 38

38 Head (figs 55, 56) with a narrow vertical triangle. Upper occipital margin narrow and with tomentose marks 40

– Head (fig. 54) with a broad vertical triangle. Upper occipital margin wide, without tomentose marks 39

39 Tergum 2 with a median vitta occupying 1/10 to 1/5 of tergal width. Posterior ocelli (fig. 54) well separated from eye-margin. Epandrium with appendages as in figs 93, 94 ..... *S. stuckenbergi* **new species** (p. 56)

– Tergum 2 with a medial vitta occupying more than 1/2 of tergal width. Posterior ocelli close to eye-margin. Epandrium with appendages as in figs 95, 96 ..... *S. fusca* **new species** (p. 59)

40 Hind femur (fig. 41) bicoloured; its ventrobasal surface with very reduced armature: only 2-4 minute setulae and a micro-bump are present. Genitalia small, at most narrowly visible in lateral view. Epandrium with appendages as in figs 89, 90 ..... *S. minuta* **new species** (p. 51)

– Hind femur more or less unicolorous, not markedly bicoloured 41

41 Vertical triangle (fig. 56) with non-tomentose areas below and above the short section with tomentum. Eye contiguity short. Eye facets small, c. 30 µm. Epandrium with appendages as in figs 91, 92, of characteristic structure ..... *S. divergata* **new species** (p. 54)

– Tomentum of lower part of vertical triangle reaches eye contiguity, which is longer. Eye facets larger, 35-45 µm 42

42 Spurious vein of about same strength as neighbouring radial and medial veins. Apical part of wing with a sparse or dense provision with microtrichia 45

– Spurious vein weaker and clearly narrower than neighbouring radial and medial veins. Part of wing apical to cross-vein R-M with a very sparse provision with microtrichia 43

43 Apical marginal vein (fig. 4) shaped as a bow, at most with a very low concavity. Tergum 1 usually yellowish on the lateral parts of the tongue-shaped posterior part. Dorsal lobe of surstylus short and simple, without a ventral bump. Epandrium with appendages as in figs 122, 123 ..... ***S. leona* new species** (p. 91)
– Apical marginal vein (fig. 2) with a concavity in mid section. Tergum 1 black from sidemargin to sidemargin on tongue-shaped posterior part. Dorsal lobe of surstylus elongate, with a submedial and/or a subbasal bump 44

44 Dorsal surface of fore and mid femora usually with a dark brown streak of various extension. Apical part of fore and mid tibiae usually darkened. Dorsal lobe of surstylus with submedial and subbasal bumps. Dorso-posterior process of ventral surstylar lobe sharp-tipped. Epandrium with appendages as in figs 124, 125 ..... *S. pipiens* (Linnaeus)(p. 93)
– Fore and mid femora and tibiae uniformly yellow-brown. Dorsal lobe of surstylus with only a subbasal bump. Dorso-posterior process of ventral surstylar lobe blunt-tipped. Epandrium with appendages as in figs 126, 127 ..... *S. fasciata* (Wiedemann)(p. 95)

45 Part of wing apical to cross-vein R-M with a dense and uniform cover by well developed microtrichia. Second costal cell with microtrichia in its apical part 47
– Part of wing apical to cross-vein R-M with a thin and incomplete cover by punctiform microtrichia. Second costal cell completely bare 46

46 Hind femur without whitish posteroventral setae. Ventrobasal surface of hind femur (fig. 42) with a few very low tubercles, each provided with a short thin setula. Apical third of hind tibia with one or several low carinae running obliquely across the ventral surface. Vertical triangle: fig. 57. Epandrium with appendages as in figs 112, 113 ..... ***S. stigmatica* Loew** (p. 79)
– Hind femur with some thin whitish posteroventral setae around middle. Ventrobasal surface of hind femur with a complete row of small tubercles, each tubercle provided with a well-developed setula. Hind tibia with smooth ventral surface apically. Epandrium with appendages as in figs 120, 121 ..... ***S. dentata* new species** (p. 89)

47 Hind femur (fig. 43) strongly incrassate, black, with only 2 or 3 setulae in ventrobasal section. Postpronotum red-yellow, markedly different from the greyish pleura. Sternum 4 with strong pale setae. Epandrium with appendages as in figs 114, 115 ..... ***S. incrassata* new species** (p. 83)
– Hind femur less incrassate, brown to black, with 4-8 small tubercles, each with a setula. Postpronotum concolorous with greyish tomentose pleura 48

48 Tomentum of anterolateral areas of tergum 4 reaches halfway to posterior corner.

Sternum 4 with a simple V-shaped incision into posterior margin. Epandrium with appendages as in figs 118, 119 ..... ***S. similis* new species** (p. 87)

– Tomentum of anterolateral areas of tergum 4 reaches all the way to posterior corner. Sternum 4 has a V-shaped incision with an additional semicircular incurvation of the medial third. Epandrium with appendages as in figs 116, 117 ..... ***S. cerca* new species** (p. 85)

49 Fore and mid femora uniformly reddish yellow to yellow-brown. Tergum 4 with greyish tomentose areas anterolaterally 51

– Fore and mid femora infuscated in about basal half. Tergum 4 without greyish tomentose areas anterolaterally 50

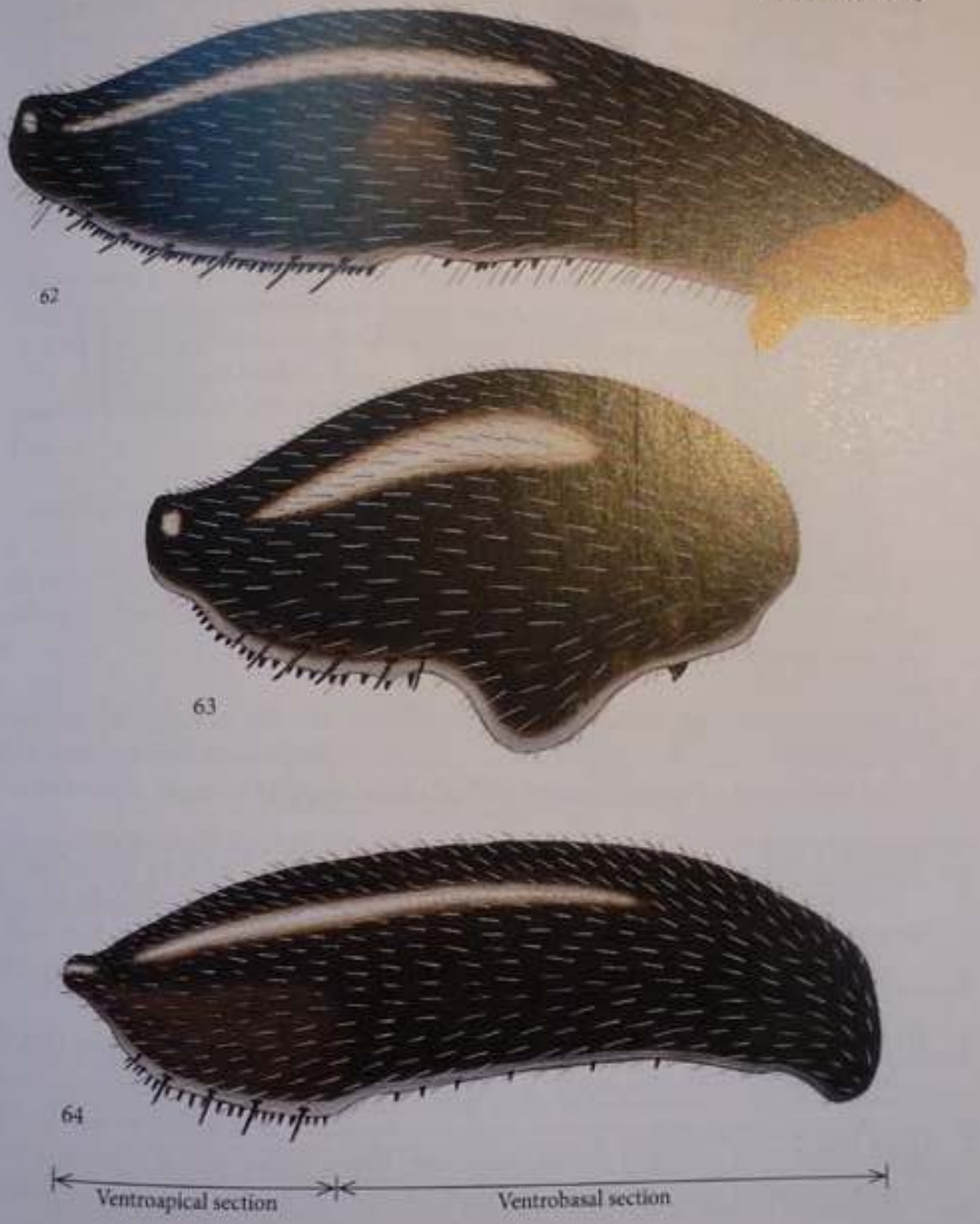
50 Terga 2 and 3 yellow-brown, with at most an indication of a dark posterior fascia and a medial vitta. Epandrium with appendages as in figs 153, 154 ..... ***S. noona* new species** (p. 132)

– Terga 2 and 3 yellow-brown, with brown-black posterior fascia and median vitta. Vertical triangle: fig. 58. Epandrium with appendages as in figs 155, 156 ..... ***S. polita* new species** (p. 134)

Figures 60, 61. Abdominal apex in right lateral view of 60: *Syritta indica* (Wiedemann) and 61: *S. proximata* new species. Notice difference in placement of the dorsal hump, and in shape of dorsal lobe of surstylus.

51 Tergum 4 (fig. 60) with a hump situated c. 1/6 of tergal length from posterior margin; brown posterior fascia uninterrupted. Epandrium with appendages as in figs 149, 150 ..... ***S. indica* (Wiedemann)** (p. 127)

– Tergum 4 (fig. 61) with a hump situated on posterior margin; brown posterior fascia interrupted by that hump which is black. Epandrium with appendages as in figs 151, 152 ..... ***S. proximata* new species** (p. 129)



Figures 62-64. Right hind femora in anterior view of 62: *Syritta caboverdensis* new species; 63: *S. thompsoni* new species and 64: *S. maritima* Hull.

Key to species of *Syritta*, females

The female sex is unknown in the following species: from Africa: *Syritta divergata* new species, *S. congoensis* new species, *S. senegalensis* new species, *S. rufa* new species, *S. incrassata* new species, *S. cerca* new species, *S. similis* new species, *S. barbata* new species, *S. londti* new species, and *S. carbonaria* new species; from the Pacific region: *S. noona* new species; from the Oriental region: *S. polita* new species and *S. thompsoni* new species.

1 Spurious vein present as a well sclerotised structure as distinct as the neighbouring R- and M-veins, although it may be thinner than these 16
– Spurious vein differing from neighbouring R- and M-veins; either it is a shadow formed by microtrichia, or it is a thin incomplete line, or it is undiscernable 2

2 Ventrobasal section of hind femur with 4 or 5 thin whitish setae in a posteroventral position; without any trace of a subbasal posteroventral spina or elevated area. Spurious vein appears as a thin line basally and apically to the knot in anterior basal cell. Indian ..... ***S. stylata* new species** (p. 103)
– Ventrobasal section of hind femur without such setae, and often with a subbasal posteroventral spina or elevated area. Not Indian 3

3 Tomentose scutal vitta sharply delimited from black scutal disc. Frontal tomentum not usually reaching anterior ocellus 6
– Tomentose scutal vitta not sharply delimited from black scutal disc which is extensively covered with tomentum. Frontal tomentun reaching anterior ocellus or even vertex 4

4 Hind tarsomeres (fig. 207) dilated and broadened. Ocellar triangle (fig. 65) shining black ..... ***S. latitarsata* Macquart** (p. 197)
– Hind tarsomeres of normal subcylindrical shape. Ocellar triangle tomentose 5

5 Tergum 4 with a pair of deep impressions, separated by a shining black ridge in midline. Sternum 4 entirely tomentose ..... ***S. vittata* Portschinsky** (p. 200)
– Tergum 4 evenly convex. Sternum 4 with a shining black anterior part that is wider than long ..... ***S. asiatica* new species** (p. 203)

6 Hind femur (fig. 202) with a dorsal extension c. 1/4 from apex. Frons (fig. 66) with a black upper area nearly 2 times as long as lower tomentose area .....
– Hind femur with a simple dorsal curvature. Frons either with a tomentose area approximately equal in length to blackish area, or tomentose area very dominant ..... ***S. dilatata* Keiser** (p. 194)

7 Katepisternum uniformly greyish tomentose 11

Figures 65-70. Female frons of *Syritta* species. 65: *S. latitarsata* Macquart; 66: *S. dilatata* Keiser 67: *S. natalensis* new species; 68: *S. flaviventris* Macquart; 69: *S. caboverdensis* new species; 70: *S. albopilosa* new species.

- Katepisternum non-tomentose, i. e. shining black, on ventro-posterior area 8

8 Entire wing surface, including alula, with a dense covering of microtrichia. Frons entirely tomentose: greyish on lower part, dark brown on upper part .....
..... ***S. montana* new species** (p. 174)

- Wing surface with a sparse covering of punctiform microtrichia; alula with microtrichia on posterior part. Frons with shining black area on upper part 9

9 Fore and mid femora dark brown or blackish in about basal third. Frons: fig. 67.
..... ***S. natalensis* new species** (p. 181)

– Fore and mid femora yellowish brown 10

10 Fore femur with 1-3 short black setulae at ventral base. Hind femur with a genuine subbasal spina which is slender and directed towards femoral apex ..... ***S. hova* new species** (p. 188)

– Fore femur without such setulae. Hind femur without a genuine subbasal spina; in its place a tubercle with a couple of setulae ..... ***S. vitripennis* Bigot** (p. 176)

11 Fore and mid femora dark brown to black in basal third or more. From the Australian-Pacific region 14

– Fore and mid femora yellow-brown to red-brown, not markedly darkened in basal part. From the Afrotropical and Palaearctic regions 12

12 Tomentum of frons (fig. 68) nearly reaching ocellar triangle, i. e. is separated from anterior ocellus by a distance equal to height of ocellus ..... ***S. flaviventris* Macquart** (p. 190)

– Tomentum of frons (figs 69, 70) only covering about lower half of frons 13

13 Apical part of wing densely covered with microtrichia. Hind femur slender, c. 3.5 times as long as maximum width, patterned in black and red-brown. Frons: fig. 69 ..... ***S. caboverdensis* new species** (p. 184)

– Apical part of wing very sparsely covered with punctiform microtrichia. Hind femur thicker, c. 2 times as long as maximum width; its colour uniformly black. Frons: fig. 70 ..... ***S. albopilosa* new species** (p. 162)

14 Wing with spurious vein appearing as a brown shadow upon which are arranged elongate microtrichia; entire wing surface has a brownish tinge; stigma dark brown; apical part of wing with a uniformly dense cover of microtrichia. Tomentum of face, lower frons, and pleura has a yellowish grey colour. Frons: fig. 71 ..... ***S. oceanica* Macquart** (p. 168)

– Wing without any trace of a spurious vein; entire wing surface hyaline; stigma pale yellow; apical part of wing with a very sparse covering of microtrichia. Tomentum of face, lower frons, and pleura pure ash-grey in colour 15

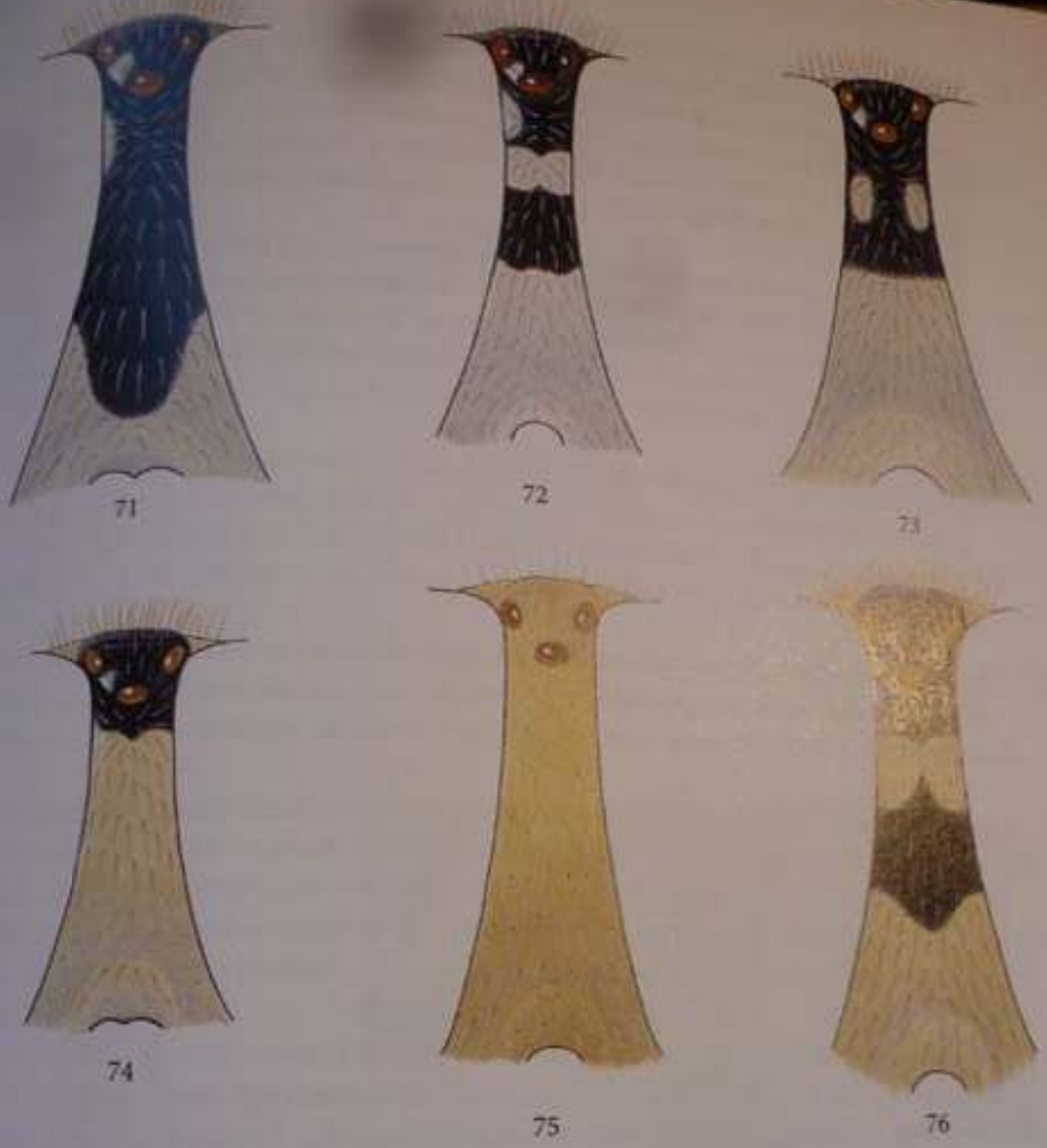
15 Frons as in fig. 72. Oral margin less projecting than frontal prominence. Hind femur subbasally with 2 setulae side-by-side on a low ridge ..... ***S. papua* new species** (p. 172)

– Frons as in fig. 73. Oral margin projecting beyond frontal prominence. Hind femur subbasally with a genuine setula-bearing spina ..... ***S. luteinervis* de Meijere** (p. 165)

16 Specimens from other regions than Afrotropis 36

– Specimens from the Afrotropical region 17

17 Scutum with tomentose lateral vitta only reaching to suture 20



Figures 71-76. Female frons of *Syritta* species. 71: *S. oceanica* Macquart; 72: *S. papua* new species; 73: *S. luteinervis* de Meijere; 74: *S. breva* new species; 75: *S. unicolor* new species; 76: *S. tomentosa* new species.

- Scutum with lateral tomentum reaching scutellum, or scutum entirely tomentose 18

18 Femur and tibia of mid leg (fig. 45) extraordinarily slender and elongate. Hind femur with a series of uniformly shaped setulae on ventrobasal surface. Frons: fig. 74 ..... ***S. breva* new species** (p. 77)

- Femur and tibia of mid leg (fig. 44) of "normal" dimensions. Hind femur with a low spina or a low bump that is distinct from other elements of the armature on the ventrobasal surface 19

19 Frons (fig. 75) entirely tomentose. Hind femur with a setula-free low bump at some distance from base. Brown-black fascia of tergum 4 is broadly separated from anterior margin by yellowish integument ..... ***S. unicolor* new species** (p. 75)
– Frons (fig. 76) patterned in black and yellow. Hind femur (fig. 44) with a setula-bearing low spina in some distance from base. Blackish fascia of tergum 4 touching anterior margin in middle ..... ***S. tomentosa* new species** (p. 72)

20 Hind femur without a subbasal ventral structure, or if such structure is present it is not distinct from the other structures of the ventrobasal surface 22
– Hind femur with a ventral subbasal structure in the shape of a bump, a tubercle, or a ridge; in any case, this structure is distinct from the other structures situated towards the apex of the ventrobasal section 21

21 Frontal callus (fig. 77) brownish. Scutellum partly brownish. Hind femur unicolorous brownish ..... ***S. angulata* new species** (p. 67)
– Frontal callus (fig. 78) blackish. Scutellum black. Hind femur markedly bicoloured in yellow and brown-black ..... ***S. bulbus* Walker** (p. 65)

22 Pleura with dorso-ventrally directed black and yellow-grey fasciae. Two pairs of long scutellar setae. Large species: c. 10 mm ..... ***S. decora* Walker** (p. 123)
– Pleura uniformly tomentose. One pair of short scutellar setae, if any 23

23 Frons at most 3 times as wide as anterior ocellus in front of this, extensively tomentose on lower part, and with paired tomentose spots or transverse band on upper part. Dorsal occipital margin narrow, usually with tomentose spots 25
– Frons (fig. 79) broad, at level of anterior ocellus c. 4 times as wide as ocellus, and extensively blackish. Dorsal occipital margin wide, without tomentose spots. 24

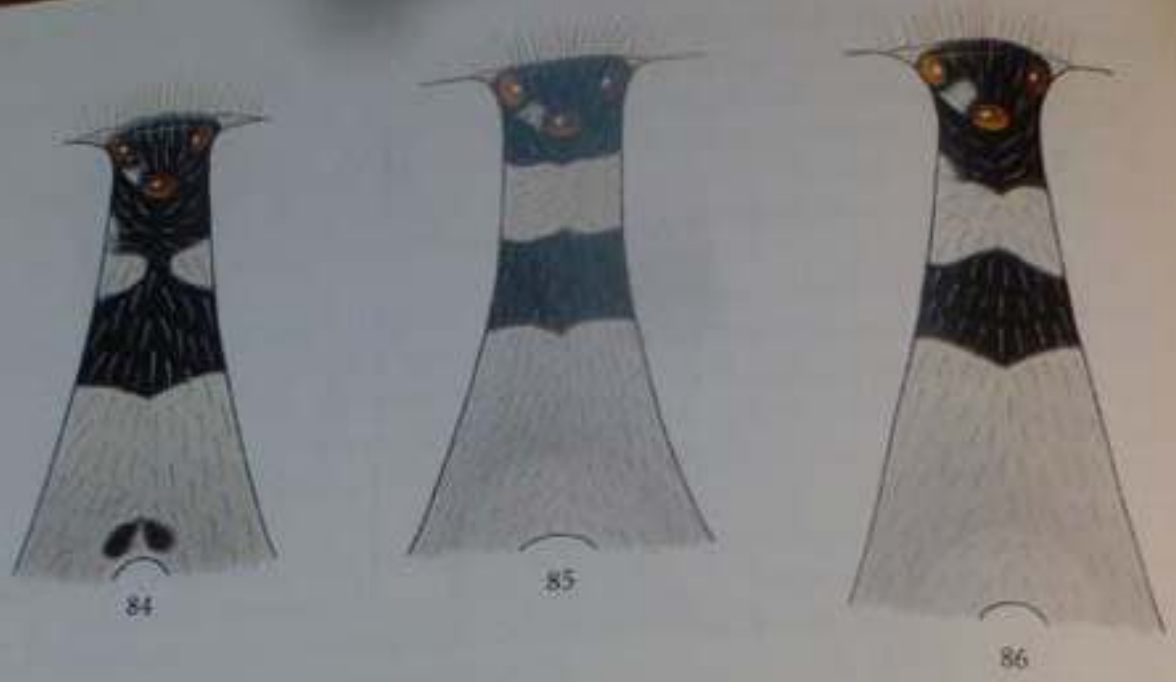
24 Terga 2 and 3 blackish, with narrow areas of yellow-brown integument laterally. Tergum 4 (fig. 97) short and wide ..... ***S. stuckenbergi* new species** (p. 56)
– Terga 2 and 3 blackish, with greyish tomentum laterally. Tergum 4 (fig. 98) longer compared to its width ..... ***S. fusca* new species** (p. 59)

25 Spurious vein of about same strength as neighbouring radial and medial veins .. 27
– Spurious vein distinctly thinner than neighbouring radial and medial veins, obsolete at base 26

26 Apical marginal vein (fig. 4) shaped as a bow, with at most a very low concavity. Ratio between tomentose lower part and blackish upper part of frons c. 4.0/4.0 ..... ***S. leona* new species** (p. 91)
– Apical marginal vein (fig. 2) with a distinct concavity in mid section. Tomentose lower part of frons of greater extent than blackish upper part ..... ***S. fasciata* (Wiedemann)** (p. 98)

27 Fore and mid femora more or less uniformly yellowish brown, not blackened in basal part 29

Figures 77-83. Female frons of *Syritta* species. 77: *S. angulata* new species; 78: *S. bulbus* Walker; 79: *S. stuckenbergi* new species; 80: *S. longiseta* new species; 81: *S. minuta* new species; 82: *S. hirta* Curran; 83: *S. leucopleura* Bigot.



Figures 84-86. Female frons of *Syritta* species. 84: *S. stigmatica* Loew; 85: *S. praxithea* new species; 86: *S. indica* (Wiedemann).

– Fore and mid femora with basal third or more blackened 28

28 Ventral surface of hind tibia with a low lamina that crosses over ventral surface at 1/3 from apex. Hind tibia without elongate setae on posterior surface. Hind femur without setulae at posteroventral base ..... ***S. nigrifemorata* Macquart** (p. 137)

– Ventral surface of hind femur without such a lamina. Hind tibia with some elongate setae on posterior surface before apex. Hind femur with setula(e) at posteroventral base. Frons as in fig. 80 ..... ***S. longiseta* new species** (p. 107)

29 Tomentose lower part of frons (fig. 81) longer than blackish upper part; ratio c. 5.0/3.0. Hind femur (fig. 41) bicoloured yellow and dark brown ..... ***S. minuta* new species** (p. 51)

– Tomentose lower part of frons shorter than, or about equal to, blackish upper part 30

30 Cell R4+5 sparsely covered with microtrichia in apical part, practically bare at base 33

– Cell R4+5 with a uniformly dense covering of microtrichia, as on remainder of wing apex 31

31 Hind femur at middle with several rather long, sharp-tipped setae on posteroventral surface. Frons: fig. 82 ..... ***S. hirta* Curran** (p. 117)

– Hind femur without such sharp-tipped posteroventral setae at middle 32

32 Oral margin markedly projecting beyond frontal prominence. Posterior surface of hind tibia with elongate setae ..... ***S. lanipes* Bezzi** (p. 112)
– Oral margin less projecting than frontal prominence. Posterior surface of hind tibia without setae ..... ***S. vockerothi* new species** (p. 120)

33 Ventrobasal surface of hind femur with only 3-5 setulae; these are small and none are in a subbasal position; without elongate, thin whitish setae posteroventrally. Hind tibia nearly uniformly brownish ..... ***S. stigmatica* Loew** (p. 79)
– Ventrobasal surface of hind femur with 8-10 black setulae arranged on tubercles that are also present subbasally; also with some long, very thin whitish setae in a more posteroventral position. Hind tibia with paler ring around middle 34

34 Basoflagellomere large, c. 0.5 mm long. Median vitta of tergum 2 (fig. 24) consisting of two parallel-sided sections. Ventral tubercles of hind femur coarse ..... *S. austeni* Bezzi (p. 145)
– Basoflagellomere at most 0,4 mm long. Median vitta of tergum 2 of the usual hourglass shape. Ventral tubercles of hind femur more delicate 35

35 Sterna 2-4 black and well sclerotised. Anteroventral carina of hind femur continuous ..... *S. denticta* new species (p. 89)
– Only sternum 4 black and well sclerotised; sterna 2 and 3 yellowish and weakly sclerotised. Anteroventral carina of hind tibia with a break at middle; with a low crossing lamina on ventral surface at 1/3 from apex ..... ***S. leucopleura* Bigot** (p. 141)

36 Spurious vein of about the same strength as neighbouring radial and medial veins 40
– Spurious vein distinctly thinner than neighbouring radial and medial veins, sometimes obsolete basally but clearly discernable for the rest of its length 37

37 Head entirely tomentose. Scutum with extensive tomentum 39
– Head with non-tomentose areas on vertex. Scutum with a well demarcated lateral vitta to suture 38

38 Fore and mid femora and tibiae yellow-brown. Small, slenderly built species ..... ***S. fasciata* (Wiedemann)** (p. 98)
– Fore and mid femora yellow-brown, on dorsal surface with a dark brown streak of variable extent. Fore and mid tibiae darkened in apical part. Larger and more broadly built species ..... ***S. pipiens* (Linnaeus)** (p. 95)

39 Tergum 4 with a pair of deep impressions, separated by a shining black ridge in midline. Sternum 4 entirely tomentose ..... ***S. vittata* Portschinsky** (p. 200)
– Tergum 4 evenly convex. Sternum 4 with a shiny black anterior part that is wider than long ..... ***S. asiatica* new species** (p. 203)

40 Anteroventral profile line of hind tibia (figs 163, 164) with a low lamina at 1/3 from apex, making that section distinctly convex. Fore and mid femora blackened in basal part or scutellum more or less brownish 44

– Anteroventral profile line of hind tibia continuously concave. Fore and mid femora yellow-brown, and scutellum black like scutum 41

41 Hind femur (fig. 64) elongate; ctenidial section only about 1/4 of total length. Large species: c. 10 mm long. Insular endemics 45

– Medium-sized species: 6-9 mm. Not insular endemics 42

42 Hind femur with a small, but usually distinct setula-bearing spina in a subbasal posteroventral position; hind femur with only one long white seta basally of the row of black posteroventral setae before apex ..... ***S. orientalis* Macquart** (p. 157)

– Hind femur with 1 to 3 subbasal setulae in a more ventral position; these setulae are not situated on tubercles. Hind femur also with 2 long white setae basally to row of black posteroventral setae before apex 43

43 Frons (fig. 85) wide, almost parallel-sided for some distance below level of anterior ocellus, which is separated from eye-margins by width of ocellus. Hind femur yellow-brown in basal 2/3, dark brown in apical 1/3, in some specimens also on dorsal surface of basal 2/3 ..... ***S. proximata* new species** (p. 129)

– Frons (fig. 86) slightly narrower, side-margins diverging from level of anterior ocellus, which is separated from eye-margin by a distance shorter than width of ocellus. Hind femur may be patterned as in *S. proximata*, but is usually more extensively darkened ..... ***S. indica* (Wiedemann)** (p. 127)

44 Fore and mid femora blackened in basal part. Scutellum blackish as scutum. Tergum 4 with a distinct posterior strip of yellow integument ..... ***S. aenigmatopatria* Hardy** (p. 148)

– Fore and mid femora entirely yellow-brown. Scutellum more or less leather-brown posteriorly. Tergum 4 without a posterior strip of pale tomentum or integument ..... ***S. hackeri* Klöcker** (p. 152)

45 Hind tibia entirely blackish. Oral margin strongly protruding. Hind femur as fig. 64 ..... ***S. maritima* Hardy** (p. 208)

– Hind tibia brown-black in apical 1/3, yellow-brown in basal 2/3. Oral margin less strongly protruding ..... ***S. snyderi* Shiraki** (p. 205)

I. The *divergata* species-group

We have included four hitherto undescribed Afrotropical species in this probably unnatural species-group. They share two character states, both of which may prove to represent plesiomorphous conditions. The first character state is the presence of a relatively small hood to the ejaculatory apodeme (fig. 88), its size being subequal to the size of the hood of the aedeagal apodeme. The second character state shared by *S. minuta* new species and the two broad-fronted species (i. e., *S. stuckenbergi* new species and *S. fusca* new species) is the extensively microtrichose alula. Usually in *Syritta*, the alula has a completely bare strip anteriorly (figs 5, 6) occupying about one third of the alula. In these three taxa, the bare area of the alula is very narrow and does not include the basal or apical parts which are microtrichose like the posterior part. If we assume that a totally microtrichose alula as found in *Tropidia* Meigen, 1822 represents the plesiomorphous character state, the condition in the mentioned taxa probably represents a relatively plesiomorphous condition. See also *S. montana* new species, which seems to hold an analogous position in the *S. flaviventris* species-group.

We have illustrated in colour the hind femur of *S. minuta* (fig. 41). The hind femur of the other three species included in the species-group is rather similar, except for different colour patterns (see descriptions), i. e. with a straight ventrobasal profile line, with a poor provision with armature which is mainly concentrated in the apical portion of the ventrobasal section, without a minute subbasal bump as in *S. minuta*, and without thin whitish posteroventral setae.

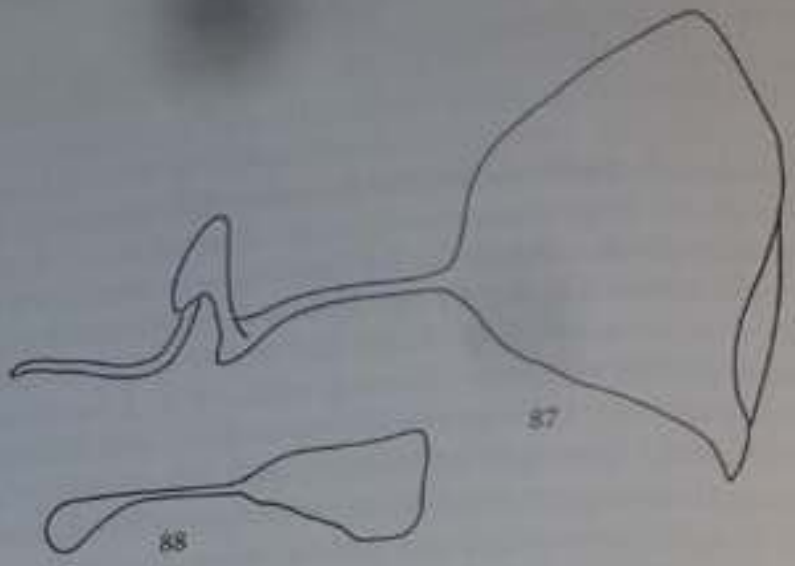
Syritta minuta new species

Figs 41, 55, 81, 89, 90.

Syritta minuta new species can only be recorded from DR Congo. It is a very atypical *Syritta*, because the male sex does not possess the usual club-shaped abdominal apex. Instead, the small genital segments are almost invisible in lateral view of the abdomen, which gives one the impression of examining a small syrphine hover fly.

Diagnostic characters.
Hind femur (fig. 41) bicoloured (yellow/dark brown), with a very weak armature that includes a minute bump; male vertical triangle (fig. 55) narrow, nearly parallel-sided and tomentose to near anterior ocellus; female frons as in fig. 81; male genitalia (figs 89, 90) distinctive.

Description – male.
Face concave, tomentum yellow. Oral margin less projecting than frontal prominence. Eye contiguity c. 2.0. Vertical triangle (fig. 55) with a ratio between tomentose lower part and blackish upper part of c. 6.0/0.5, i. e. nearly entirely yellowish tomentose except for a narrow area in front of anterior ocellus. Distance between anterior ocellus and eye-margins shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere pale yellow; size c. 2.4 x 2.0; arista c. 3.8.



Figures 87, 88. Ejaculatory apodemes of 87: *Syritta stigmatica* Loew and 88: *S. divergata* new species.

Tomentum of lower parts of pleura greyish, of upper parts of pleura, postpronotum and lateral scutum to suture yellow-grey with a golden tinge; the lateral scutal vitta is broader than in most species. Mesonotum black with golden pilosity; scutellum without or with a pair of short black subapical setae; other marginal setae weak and pale.

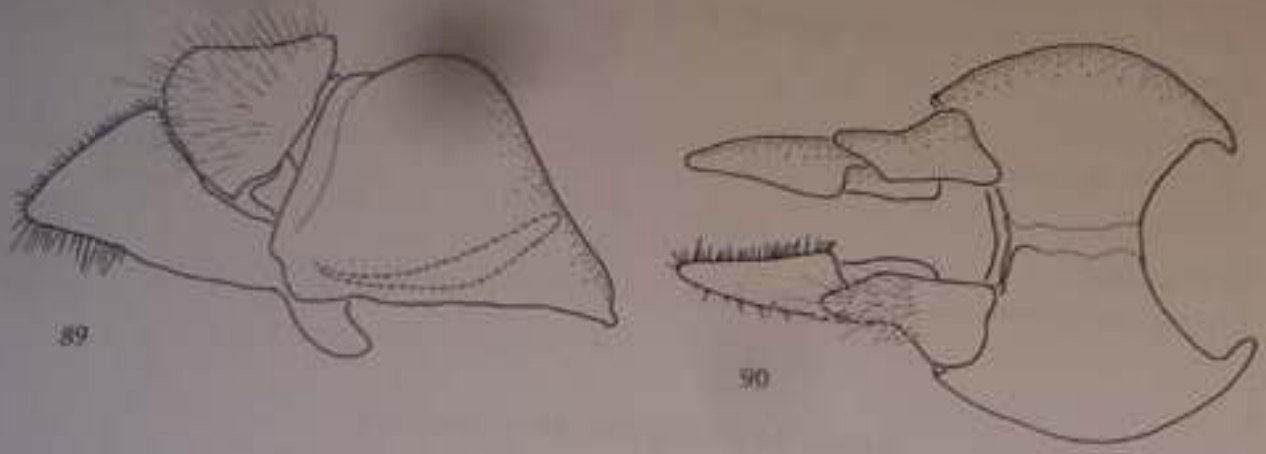
Veins and spurious vein brown-black, well marked. Stigma pale brownish. Fine microtrichia present on apical parts of R-cells and along apico-posterior wing margin. Only a few punctiform microtrichia in cell DM.

Fore and mid legs pale yellowish. Hind femur (fig. 41) moderately thickened; ventrobasal profile line slightly concave; bicoloured: yellow in slightly more than basal half, dark brown in apical part.

Ventrobasal section of hind femur with a very reduced armature: a very low bump near middle of yellow section; a further 2 to 4 very minute setulae present in subapical part of yellow section. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex; only 4 or 5 anteroventral setae in front of ctenidial series of setulae (usually in *Syritta*: 5 to 7).

Hind tibia unmodified except for the usual anteroventral carina; ventral surface of basal half with an erect blackish pile, setae being as long as tibial width. Colours yellowish and dark brown.

Tergum 1 with a square brown-black area on middle, lateral areas yellowish. Tergum 2 yellow with a blackish posterior fascia and a median vitta that gradually becomes wider towards anterior margin where it has same width as the blackish area of tergum 1. Tergum 3 yellow with blackish posterior fascia and median vitta. Tergum 4 of same width as tergum 3, brown-black, semishining; large anterolateral triangular areas yellowish, untomentose and connecting narrowly along sidemargin to yellowish posterior margin. Genitalia segments small. Sternum 4 with a deep V-shaped incision into posterior margin, not visible in lateral view.



Figures 89, 90. Epandrium with appendages of *Syritta minuta* new species, paratype, DR Congo, Parc National de la Garamba. – 89: lateral view; 90: dorsal view.

Genitalia. Lateral view of epandrium and its appendages (fig. 89): cercus subtriangular, broadly rounded apically. Dorsal lobe of surstylus gradually increasing in width towards a very broad apex which is slightly convex; a dense pilosity at apex and along apical part of ventral margin. Ventral surstylar lobe reduced to a short peg. Dorsal view (fig. 90): tergum 9 relatively long in dorsal midline which has a weakly sclerotized section. Cerci strongly concave laterally and less concave medially; rather sharply pointed. The surstylar lobes are narrowly triangular and show a dense pilosity on median surface; also a few setae on lateral surface. Surstylar apodemes separate. Ejaculatory and aedeagal apodemes with hoods of subequal size, the former very weakly sclerotized and pigmented.

Female.

Agrees in most characters with the male, including the colour patterns and the armature of the hind femur (fig. 41), frons (fig. 81) with a ratio between tomentose lower part and blackish upper part of c. 4.0/3.0, the blackish part with the usual pair of tomentose areas. Distance between anterior ocellus and eye-margins equal to width of ocellus.

Length: 5.5-7 mm.

Material examined.

Holotype: ♂. DR Congo ["Congo belge"], P. N. G. [= Parc National de la Garamba], Miss. H. De Saeger, 2679, 28.X.1951 (MRAC).

Paratypes:

1 ♂. DR Congo ["Congo belge"], Elisabethville [Lubumbashi], a la lumière [at light], 26.II.1939, leg. H. J. Brédo (IRSNB);

1 ♂. DR Congo ["Congo belge"], P. N. G., Miss. H. De Saeger, 923, 2.XI.1950 (MRAC);

1 ♂. DR Congo ["Congo belge"], P. N. G., Miss. H. De Saeger, 1700, 9.V.1951 (MRAC);

4 ♂♂, 1 ♀. DR Congo ["Congo belge"], P. N. G., Miss. H. De Saeger, 2679, 28.X.1951 (3 ♂♂, 1 ♀: MRAC, 1 ♂: ZMUC), same data as holotype;

1 ♀, DR Congo ["Congo belge"], P. N. G., 3299, 7.IV.1952, Miss. H. De Saeger (MRAC).

Distribution.
The species is only known from the DR Congo. The two localities are situated c. 1600 km apart.

Etymology.
The name refers to the small size of the hind femoral bump.

Syritta divergata new species

Figs 56, 88, 91, 92.

Syritta divergata new species is a characteristic and rarely collected species from the highlands of eastern and southern Africa.

Diagnostic characters.
Hind femur unicolorous, with 4-6 small tubercles each of which has a small black setula; male vertical triangle (fig. 56) with short eye contiguity, and the tomentose area small and separate; facets remarkably small; genital segments small; the shape of the dorsal lobe of syrstylus is very distinctive (figs 91, 92).

Description – male.
Face concave, its tomentum a grey-red. Oral margin less projecting than frontal prominence. Eye contiguity c. 1.5. Vertical triangle (fig. 56) with a non-tomentose area between eye-contiguity and tomentose area, resulting in the following dimensions: 1.5/1.5/2.5. Distance between eye-margins and anterior ocellus shorter than width of ocellus. Largest facets c. 30 µm. Upper occipital marks present, but not conspicuous. Basoflagellomere dark red-brown; size c. 3.0 x 2.0; arista c. 4.0.

Tomentum of katepisternum, katepimeron, postpronotum, and lateral scutum to suture greyish with a lilac tinge that is most distinct on katepimeron. Rest of scutum and scutellum black; one pair of black subapical scutellar setae is present; length of setae c. 60 µm.

Veins and spurious vein brown-black, very distinct. Stigma brownish. Punctiform microtrichia present in apical parts of R-cells, cell DM, and along apico-posterior wing margin.

Fore and mid legs brownish. Hind femur moderately incrassate, usually unicolorous leather-brown to blackish. Ventrobasal profile line straight.

Ventrobasal section of hind femur with 4 to 6 small tubercles in a row, each tubercle with a small black setula. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia unmodified except for the usual anteroventral carina. Colour nearly uniformly leather-brown, like the hind femur.

Tergum 1 brown-black from sidemargin to sidemargin, anterolateral corners paler by greyish tomentum. Tergum 2 yellow with a blackish posterior fascia that continues into a median vitta of c. one-fourth tergal width; at one-third of tergal length

91

92

Figures 91, 92. Epandrium with appendages of *Syritta divergata* new species, holotype, Mozambique, Gorongoza Mt. – 91: lateral view; 92: dorsal view.

from anterior margin the vitta becomes gradually wider and wider, forming a triangular anterior fascia. Tergum 3 with a blackish posterior fascia and a median vitta that does not reach anterior margin. Tergum 4 blackish, as wide as tergum 3, with lateral tomentose areas following sidemargin but fading out before reaching posterior corner. Sternum 4 with a low V-shaped incision into posterior margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 91): cercus subtriangular, c. 1.5 times as high as long. Dorsal lobe of surstylus a simple short rod, slightly wider apically than basally, displaced towards the median plane compared to the ventral surstylar lobe, and connected to this via a well sclerotized intermediate structure. Ventral surstylar lobe itself large and well sclerotized. Dorsal view (fig. 92): the marked median displacement of the dorsal surstylar lobes can be observed under the triangular cerci. Surstylar apodemes separate. Hood (fig. 88) of ejaculatory and aedeagal apodemes of subequal size.

Length: c. 7 mm.

Female.

The only available female specimen is in bad condition and will not be described.

Material examined.

Holotype: ♂. Mozambique, "Gorongoza Mountain, Manica-Sofala Dist., Port. East Africa, 840 m, gallery forest, Sept. 1957, leg. Stuckenberg" (NMSA).

Paratypes:

1 ♂. [Tanzania], Makoa, "T.T.O-Afr." 12.I.1959, Lindner leg. (SMNS);

1 ♂, 1 ♀. Tanzania, Meru, VII. 1943, leg. van Someren (BMNH);

1 ♂. Tanzania, Usambara Mountains, N Lushoto, W Jaegertal, S 04°46.587', E 38°17.229', 1507 m, 5.IX.2003, leg. Barkemeyer (Bkm);

1 ♂. South Africa, Natal, Richmond, 16.I.81. ACB (NMSA) [in bad shape];

1 ♂. South Africa, KwaZulu-Natal, Pietermaritzburg, Ferncliff Nat. Res., 27.I.2002, leg. Barkemeyer (ZMUC).

Remarks.
Two ♂♂ and one ♀ labelled: S. Rhodesia [= Zimbabwe], N. Vumba, 22.VI.1964 (1 ♂), 7.IV.1965 (1 ♂), and 8.V.1965 (1 ♀), all D. Cookson leg. (NMSA) are tentatively identified as *S. divergata*, but not labelled as paratypes. The male genitalia are almost identical with those of the holotype, but the cerci are smaller and the dorsal surstylar lobe has stronger and darker setae. The abdominal pattern is darker, as the vitta of tergum 2 is about one-third of tergal width at its narrowest.

Distribution.
S. divergata is a species of the highlands of northeastern Tanzania, Mozambique, eastern Zimbabwe and KwaZulu-Natal in South Africa.

Etymology.
The name refers to the rapidly diverging eye-margins, resulting in a short eye contiguity.

Syritta stuckenbergi new species

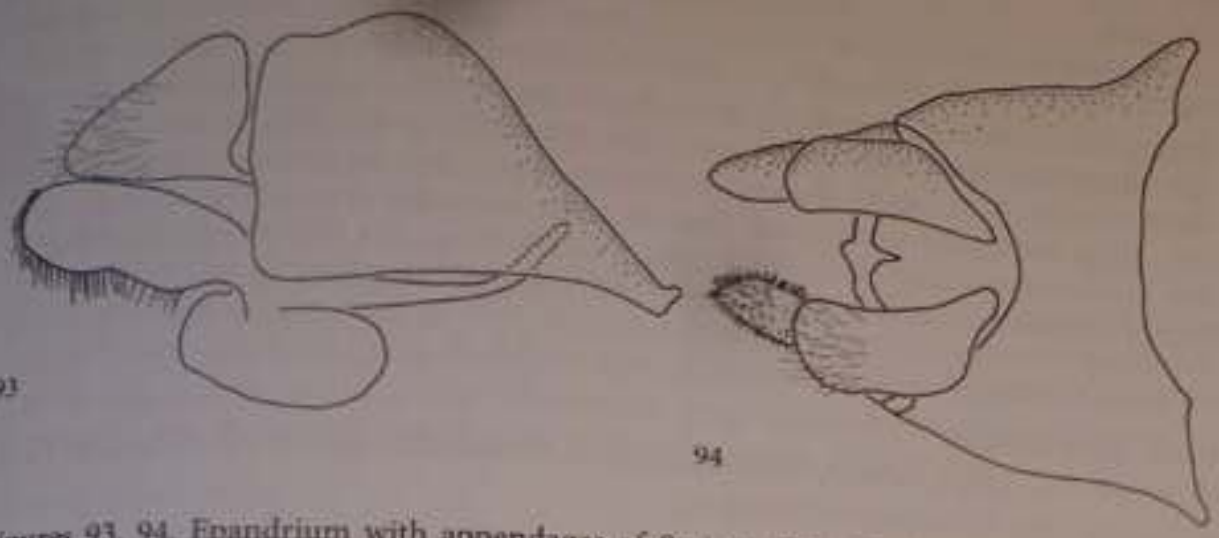
Figs 7, 19, 54, 79, 93, 94, 97.

The highlands of the Eastern Cape Province in South Africa are the homeland of three species with a remarkably wide vertical triangle (figs 30, 54) in the male. Two of these, *Syritta stuckenbergi* new species and *S. fusca* new species, possess a distinct spurious vein, whereas this is indistinct in *S. natalensis* new species which is assigned to the *vitripennis* species-group.

Diagnostic characters.
Hind femur unicolorous brownish, with 4-6 tubercles ventrobasally, each with a setula; dorsal occipital margin wide and uniformly dark brown tomentose; tergum 2 of male (fig. 19) largely yellowish; female with a much darker tergum 2 and a nearly wholly black frons (fig. 79).

Description – male.
Face concave, tomentum brownish grey with a golden tinge; a triangular area on gena shiny brown-black, as is the also oral margin which projects beyond frontal prominence. Eye contiguity c. 2.0. Vertical triangle (fig. 54) with strongly diverging margins, on about lower half with greyish tomentum. Ocellar plate not prominent, and distance from eye-margins to anterior ocellus equaling two times width of ocellus. Largest facets c. 30 µm. Upper occipital margin broad, evenly and thinly covered by dark brown tomentum, occipital marks consequently not present. Basoflagellomere blackish, with rather distinct dorsoapical and ventroapical corners; size c. 2.5 x 1.8; arista c. 3.2.

Tomentum of katepisternum grey, of anepisternum, postpronotum and lateral scutum to suture grey with a golden brown tinge. A tomentose strip occurs along posterior margin of scutum. Scutellum black, with 2 pairs of very thin setae; their length up to c. 180 µm; other marginal scutellar pilosity relatively long. Mesonotal pile dark.



Figures 93, 94. Epandrium with appendages of *Syritta stuckenbergi* new species, paratype, South Africa, Drakensberge. – 93: lateral view; 94: dorsal view.

Veins and spurious vein brown-black and very well marked. Stigma dark brownish. Wing surface brownish tinged. Apical part of wing densely covered with well developed microtrichia; with no apparent bare areas.

Fore and mid legs dark reddish brown. The mid basotarsomere very slender, c. 70 µm wide (compare *S. fusca* new species). Hind femur moderately thickened, unicolorous reddish brown to dark brown. Ventrobasal profile line straight.

Ventrobasal section of hind femur armed with 4 to 6 minute tubercles, each tubercle with a small setula; they are arranged around femoral middle. Ventroapical section of hind femur with the usual armature, including 4 or 5 posteroventral setae before apex.

Hind tibia without modifications other than a sharp anteroventral carina; its colour almost uniformly brownish to blackish, darkest in apical part.

Tergum 1 (fig. 19) almost entirely dull brown-black, only extreme lateral corners appearing slightly paler because of greyish tomentum. Tergum 2 yellow, without or with (as in fig. 19) a narrow anterior fascia, a much wider and more black posterior fascia, and a blackish vitta of c. 1/10-1/5 tergal width. Tergum 3 with a posterior fascia and a narrow median vitta. Tergum 4 not wider than tergum 3, black, with a narrow strip of brown integument along posterior margin. Anterolateral areas of tomentum narrow, transverse, adjoining anterior margin, laterally continuing as a narrowing rim along sidemargin to near posterior corner. Sternum 4 with a nearly straight posterior margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 93): cercus rounded triangular, with a narrow "root". Dorsal lobe of surstylus short, wide, with a dense, coarse pilosity. Ventral lobe of surstylus remarkably small, oval of shape. Dorsal view (fig. 94): cerci broadly rounded apically. Apex of dorsal surstylar lobes showing that a short, stiff pilosity also occurs on the median surface. The surstylar apodemes are fused but this hardly visible. Ejaculatory and aedeagal apodemes subequal in size, both "small-hooded".

Female.
Oral margin protruding as in the male. Frons (fig. 79) with a remarkable pattern: nearly totally black, with a strip of tomentum along eye-margin on slightly less than lower half, as measured from antennal lunula to anterior ocellus. Distance between eye-margins and anterior ocellus nearly two times width of ocellus. Characters of the thorax, wings, and legs as in male. Abdomen broad, almost parallel-sided throughout. Terga more extensively dark than in male, and with very limited areas of yellow-brown integument laterally on terga 2 and 3. Tergum 4 (fig. 97) short and wide, clearly different in shape from tergum 4 of *S. fusca* new species (fig. 98).

Length: 7-8 mm.

Material examined.
Holotype: ♂. South Africa, KwaZulu-Natal, Drakensberge, Royal National Park, 16.XI.2000, leg. Barkemeyer (NMSA).

Paratypes:
1 ♂. South Africa, Eastern Cape, Barkly East Dist., Naudes Nek, 2350-2525 m, 10.I.1963, leg. P. & B. Stuckenberg (NMSA);
1 ♂. South Africa, Gladdespruit River near Asbestos Mine, 2530 DB, Transvaal, 4150 FT, Nelspruit Kaapsehoop Road, 3.XI [19]70, leg. Stuckenberg (NMSA);
1 ♂, 1 ♀. South Africa, KwaZulu-Natal, Drakensberge, Royal Natal Park, Tugela Gorge, Offenland, 1500-1700 m [= open habitat, 1500-1700 m], 26.II.2000, leg. Barkemeyer (Bkm);
2 ♂♂, 2 ♀♀. With the same data as holotype (Bkm); 28°43' S, 28°55' E, [and on the back:] Devil's Hoek, (Offenland zw. westl. & östl. Wald, ca. 1700 m [= open habitat between western and eastern forest, c. 1700 m];
9 ♂♂, 3 ♀♀. South Africa, KwaZulu-Natal, Royal Natal Park, Tugela Gorge, (Offenland zwischen Tendele Camp & 1. Wald [= open habitat between Tendele Camp and first forest]) 24.I.2002, leg. Barkemeyer (8 ♂♂, 3 ♀♀: Bkm, 1 ♀: ZMUC);
3 ♂♂, 1 ♀. South Africa, KwaZulu-Natal, Drakensberge, Royal Natal Park., Tend [ele] C [amp] – Devil's Hoek (Weg/Wegnähe [= path/near path]), 23.I.2002, leg. Barkemeyer (Bkm);
3 ♂♂, 1 ♀. South Africa, Eastern Cape, ca. 60 km NE Barkly East, Naudesnek, 7.II.2004, leg. Barkemeyer (Bkm).

Distribution.
This species is only known from the mountainous part of South Africa where it lives in grassland areas. Locally the species can be fairly common.

Etymology.
The species is dedicated to the former director of the Natal Museum (Pietermaritzburg, South Africa), Dr. B. R. Stuckenberg, in recognition of his major contributions to the knowledge of the Diptera.

Syritta fusca new species

Figs 95, 96, 98.

Syritta fusca new species is evidently the sister-species of *S. stuckenbergi* new species. One of us (WB) has observed them flying simultaneously at Naudes Nek (South Africa, Eastern Cape, c. 2350 m a. s. l.) on 7. II. 2004.

Diagnostic characters.

Eye margins less diverging than in *S. stuckenbergi*, and posterior ocelli placed closer to eye-margins than in that species; tergum 2 much darker than *S. stuckenbergi*, i. e. largely brown-black and with dark grey tomentum on semicircular lateral areas, but with hardly any yellowish colour. The female tergum 4 of the two species shows differences in the shape and distribution of the tomentum (figs 97, 98).

Description – male.

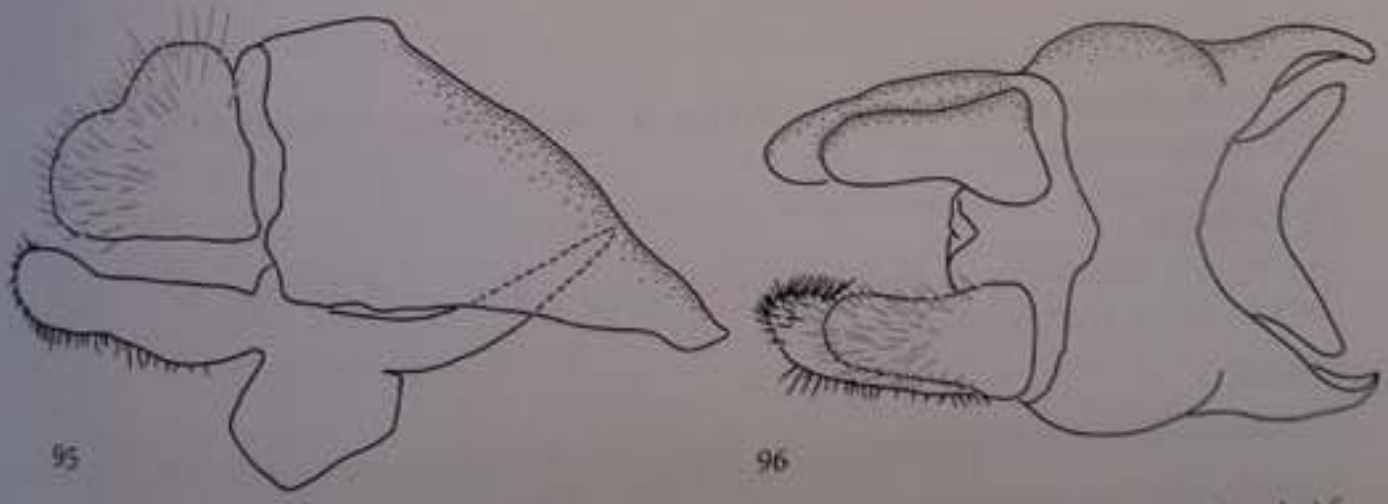
The sister-species of *S. stuckenbergi* new species, differing in the characters of the head as follows: tomentum of face pure grey, lower part of carina shining black. Eye-margins less diverging, so that posterior ocelli nearly touch eye-margin. Scutellagellomere blackish, red-brown in basoventral part; size c. 2.4 × 2.0 (length × height) compared to height); arista 4.0.

Pleura, postpronotum and lateral scutum with a pure-grey tomentum; a narrow strip of tomentum anterior to postalar callus. Scutellum with 2 pairs of subapical setae, which are pale and up to c. 100 µm long.

Wing as in *S. stuckenbergi* new species.

Fore and mid legs darker than in *S. stuckenbergi* new species, the posterodorsal surfaces being blackened. Mid basotarsomere clearly wider than in *S. stuckenbergi*, c. 100 µm against c. 70 µm. Hind femur leather-brown, darker dorsally than ventrally. Armature the same. Hind tibia appears wider than in *S. stuckenbergi*, especially in apical half.

Abdomen appearing very dark, with hardly any yellow-brown colour discernable. Tergum 1 uniformly brown-black, rather dull. Terga 2 and 3 largely brownish black, more shining than tergum 1, laterally with indistinctly demarcated semicircular areas



95 96

Figures 95-96. Epandrium with appendages of *Syritta fusca* new species, holotype, South Africa, East Cape Prov. – 95: lateral view; 96: dorsal view.

97 98

Figures 97, 98. Tergum 4 of female of 97: *Syritta stuckenbergi* new species and 98: *S. fusca* new species.

that have dark grey tomentum. Tergum 4 blackish, in anterolateral corners with a transverse strip of grey tomentum. Sternum 4 with a straight posterior margin, as in *S. stuckenbergi*.

Genitalia. Lateral view of epandrium and its appendages (fig. 95): cercus about as long as high, with a concavity dorsally. Dorsal surstylar lobe is more slender than in *S. stuckenbergi*, and ventral surstylar lobe smaller. Dorsal view (fig. 96): very similar to *S. stuckenbergi*, but both cerci and surstyli appearing longer. The surstylar apodemes showing the same extensive fusion as in *S. stuckenbergi*.

Female.
Oral margin more markedly protruding than in male. Frons very similar to that of *S. stuckenbergi* new species (see fig. 79). Abdomen entirely blackish, with no yellow-brown areas apparent; the only pale areas are grey tomentose lateral areas on tergum 2, and similarly coloured spots on anterolateral areas of tergum 3. Tergum 4 (fig. 98) narrower than in *S. stuckenbergi* new species; anterolaterally with greyish tomentose bars that continue at a right angle along sidemargin and connect to tomentose posterior part.

Length: 6-7 mm.

Material examined.
Holotype: ♂. South Africa, East Cape Province, Barkly East Dist., Lundeans Nek, 1925-2100 m, 18.I.1963, leg. B. & P. Stuckenberg (NMSA).

Paratypes:
2 ♀♀. Same data as holotype;
1 ♂. South Africa, Eastern Cape, ca. 60 km NE Barkly East, Naudesnek, 7.II.2004, leg. Barkemeyer (Bkm).

Distribution.
S. fusca was only found in high mountain areas at two localities near Barkly East (Eastern Cape, South Africa).

Habitat.
Both localities are open grassland areas high in the Drakensberg mountains.

Etymology.
The name refers to the dark abdomen.

II. The *bulbus* species-group

This species-group has caused many problems. It is a strict Afrotropical species-group and best represented in the equatorial parts of the continent. We define the *S. bulbus* species-group with its five included species in the following way:

Hind femur with a low bump or a tuberculate spina in a subbasal ventral position; cerci short; dorsal lobe of surstylus with a drooping ventral projection; ventral lobe of surstylus with an elongate posterior projection (ventral lobe reduced in size in *Syritta rufa* new species); scutum with a tomentose vitta only reaching to suture.

We have separated three species to form a separate species-group: the *S. tomentosa* species-group, including *S. tomentosa* new species, *S. unicolor* new species and *S. brevu* new species. However, we realize that at least *Syritta tomentosa* new species is nearly related to *Syritta bulbus* Walker. The species-group is erected of practical reasons, as the three included species have more extensive tomentum on scutum, which may or may not be a synapomorphy for them. Consequently, the *S. bulbus* species-group is to be regarded as paraphyletic.

The taxonomy of these two species-groups is difficult, and we must admit that where material is insufficient, we have refrained from creating additional new species, but there exist more taxa with *bulbus*-like hind femoral colour pattern and *S. bulbus*-like male genitalia. We feel confident that the descriptions and adjoining illustrations will help future researchers to recognize the seven new species that we have described in the *bulbus* and *tomentosa* species-groups.

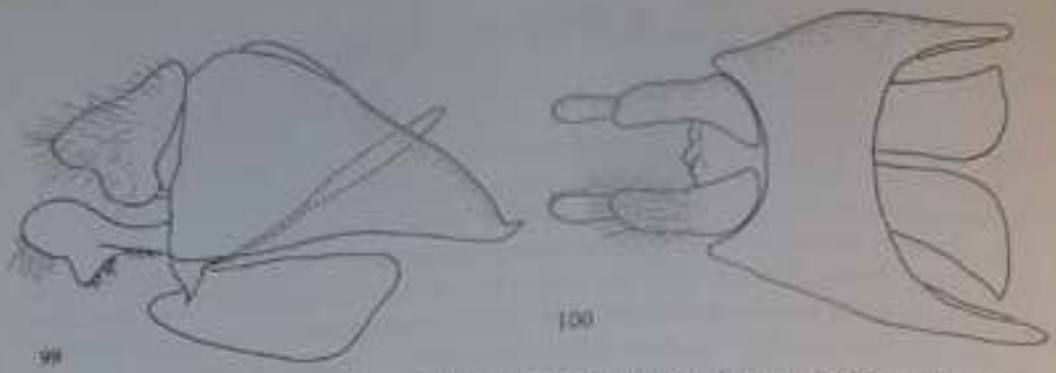
Syritta congoensis new species

Figs 46, 50, 99, 100.

We consider *Syritta congoensis* new species and its sister-species, *S. senegalensis* new species, to represent a species-pair and to be the most plesiomorphous members of the *S. bulbus* species group. A synapomorphy may be the presence of a short-based drooping ventral projection of the dorsal surstylar lobe (figs 99 & 101), whereas the rather unicolorous dark pattern of the hind femur (fig. 46) is probably a symplesiomorphy.

Diagnostic characters.
Hind femur (fig. 46) dark and with a distinct tubercle in a good distance from base, and the other armature of the ventrobasal section very restricted; vertical triangle (fig. 50) narrow, with slightly more than the ventral half tomentose; ocellar plate black, without any tomentum.

Description – male.
Face with a slight concavity, yellow-grey tomentose. Oral margin less protruding than frontal prominence. Eye contiguity c. 2.5. Vertical triangle (fig. 50): ratio between tomentose lower part and blackish upper part c. 3.0/2.5. Eye-margins separat-



99 100

Figures 99, 100. Epandrium with appendages of *Syritta congocrais* new species, paratype, Dr. Congo, Basoko. – 99: lateral view; 100: dorsal view.

ed from anterior ocellus by less than width of ocellus. Ocellar plate without tomentum. Largest facets c. 30 µm. Occipital marks small but distinct. Basoflagellomere yellow-brown, with a narrow dark margin dorsally and apically; size c. 2.6 x 1.8; arista c. 4.0.

Tomentum of pleura, postpronotum and lateral scutum to suture dark grey with a violet shine, but lower part of katepisternum more pure grey, free of pile. Scutal vitta with a deep concavity into dorsal margin (see *angulata*). Remaining part of scutum and scutellum black, rather matt, and with a rather long, pale pilosity. Marginal scutellar setae inconspicuous; no strong pair of setae to be distinguished.

Veins and spurious vein blackish, distinct. Wing surface with a brownish tinge; stigma brownish. Wing surface distal to cross-vein R-M with a uniform covering of distinct microtrichia.

Fore and mid legs pale brown. Hind femur (fig. 46) strongly incrassate; colour brown-black, extreme base paler brown and a similarly coloured ring around middle; ventrobasal profile line slightly concave.

Ventrobasal section of hind femur (fig. 46) with a distinct tubercle in a distance from base which equals two times maximal width of hind tibia; this tubercle has one or two minute setulae. Further towards apex of section with some irregularly arranged and much smaller tubercles, each with a minute blunt setula. Ventroapical section of hind femur with the usual armature; 4 black posteroventral setae before apex.

Hind tibia unmodified except for the usual anterolateral carina; colour brownish with an indistinct paler ring around middle.

Tergum 1 blackish from sidemargin to sidemargin of posterior tongue-shaped section; anterolateral corners yellow-brown. Tergum 2 yellowish with a marked brown-black pattern composed of a posterior fascia and a median vitta that is c. 2/9 of tergal width at its narrowest, and widens towards anterior margin where it forms an anterior fascia. Tergum 3 with a pattern similar to the one on tergum 2, but not forming an anterior fascia. Tergum 4 slightly wider than tergum 3, black, with extensive yellow-brown integument posteriorly; large anterolateral areas of tomentum that fade out towards posterior corners. Sternum 4 with a moderately deep V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 99): cercus subtriangular, concave ventrally; with an indistinct "root". Dorsal lobe of surstylus glove-

shaped, i. e. broadly rounded apically and with a triangular ventral outshoot; stalk short. Rather long ventral pilosity present before apex. Ventral lobe of surstylus with a short, broad posterior projection. Dorsal view (fig. 100): cerci concave on median surface. Dorsal surstylar lobes simple. Surstylar apodemes separate. Ejaculatory apodeme with a large "hood".

Female.
Unknown.

Length: c. 7 mm.

Material examined.
Holotype: ♂. DR Congo: Basoko, X.1948, leg. P. L. G. Benoit (MRAC).

Paratypes:
1 ♂. Same locality as holotype, V.1948, same collector (ZMUC).
1 ♂. Uganda, Bwamba Valley, VII.1945, leg. van Someren (CNC).

Distribution.
This species is only known from the DR Congo and Uganda.

Etymology.
The name refers to the collecting site of the holotype.

Syritta senegalensis new species

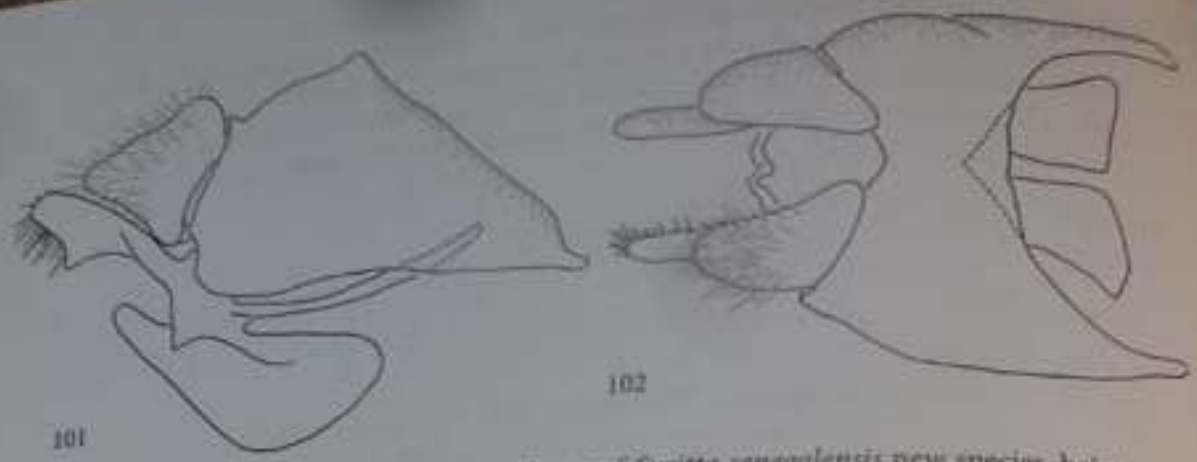
Figs 51, 101, 102.

Syritta senegalensis new species is probably the sister-species of *S. congoensis* new species. Their close relationship is demonstrated by the structure of the male genitalia. These can probably not be safely distinguished. Both species are extremely rarely collected syrphids of West and Central Africa.

Diagnostic characters.
Hind femur with a low subbasal ridge closer to the base than in *S. congoensis*; vertical triangle (fig. 51) wider than in *S. congoensis*, the grey tomentum being more distributed, and ocellar plate with two oval areas of similar tomentum.

Description – male.
Face slightly concave, with grey-yellow tomentum. Oral margin not protruding as much as frontal prominence. Eye contiguity c. 3.0. Vertical triangle (fig. 51): ratio between tomentose lower part and blackish upper part is c. 4.5/1.0. Eye-margins separated from anterior ocellus by less than width of ocellus. Ocellar plate with a pair of tomentose areas. Largest facets c. 40 µm. Occipital marks large. Basoflagellomere yellow-brown, blackened along dorsal and apical margins; size c. 2.5 x 1.7; arista c. 4.0.

Tomentum grey-yellow on pleura, postpronotum and lateral scutum to suture, and anepisternum in particular with a distinct red-violet tinge whereas lower katepisternum is pure dark grey. Scutal vitta not sharply delimited dorsally as in the great majority of *Syritta*, but the tomentum fading out more gradually. Remaining part of



101 102

Figures 101, 102. Epandrium with appendages of *Syritta senegalensis* new species, holotype, Senegal, Etomé. – 101: lateral view; 102: dorsal view.

scutum and scutellum not deep black, but matt caused by thin tomentum, which is mainly visible in anterior half. Marginal scutellar setae inconspicuous, but with a pair of short subapical setae, c. 70 µm long. Mesonotal pilosity pale.

Veins and spurious vein brown-black, well marked. Wing surface hyaline; stigma pale brownish, indistinct. Short, but distinct microtrichia occur in apical parts of the R-cells and along apico-posterior wing margin. The more basal parts of the R-cells and cell DM bare or with sparse punctiform microtrichia.

Fore and mid legs uniformly yellow-brown. Hind femur moderately incrassate, ventrobasal profile line concave; colour brown in holotype, more dark brown in paratype.

Ventrobasal section of hind femur with a low subbasal ridge in a distance from base equalling sligthly more than maximum hind tibial width; this structure with 2 minute black setulae. Further towards apex of section with an additional 3 to 7 similar setulae which are irregularly arranged.

Hind tibia unmodified except for the usual anteroventral carina; colour brownish, slightly paler at base and in a ring after middle.

Tergum 1 grey-brown, anterolateral corners greyish tomentose. Tergum 2 dirty yellowish with brown-black pattern composed of a posterior fascia and a median vitta of c. 2/7 tergal width; the vitta widening slightly towards anterior margin but not forming a fascia. Tergum 3 with a similar pattern, but median vitta not reaching anterior margin. Tergum 4 slightly wider than tergum 3, black, yellowish and brownish posteriorly; large anterolateral areas of tomentum that fades out towards posterior corners. Sternum 4 with a moderately deep V-shaped incision.

Genitalia. Lateral view af epandrium and its appendages (fig. 101): cercus subtriangular, slightly concave ventrally; with a narrow "root". Dorsal lobe of surstylus with a narrow shaft, apical half relatively narrow and with a relatively small drooping triangular outshoot ventrally. Posterior projection of ventral surstylar lobe intermediate in size between the related species: *S. angulata* (fig. 104) and *S. congoensis* (fig. 99). Dorsal view (fig. 102): cerci wider and more evenly rounded than in these two species. Surstylar lobe uncharacteristic. Surstylar apodemes separate. Ejaculatory apodeme with a large hood.

Female.
Unknown.

Length: c. 7 mm.

Material examined.
Holotype: ♂. Senegal, 15 km SW Ziguinchor, Etomé, 3.III.1985, leg. Barkemeyer (ZMUC).

Paratype:
1 ♂. With same data as holotype (Bkm).

Distribution.
This species is only known from its type locality in SW Senegal.

Habitat.
The specimens were found near palms/trees in a forest near gardens and mangroves.

Etymology.
The name refers to the collecting site.

Syritta bulbus Walker, 1849

Figs 9, 47, 53, 78, 103, 104.

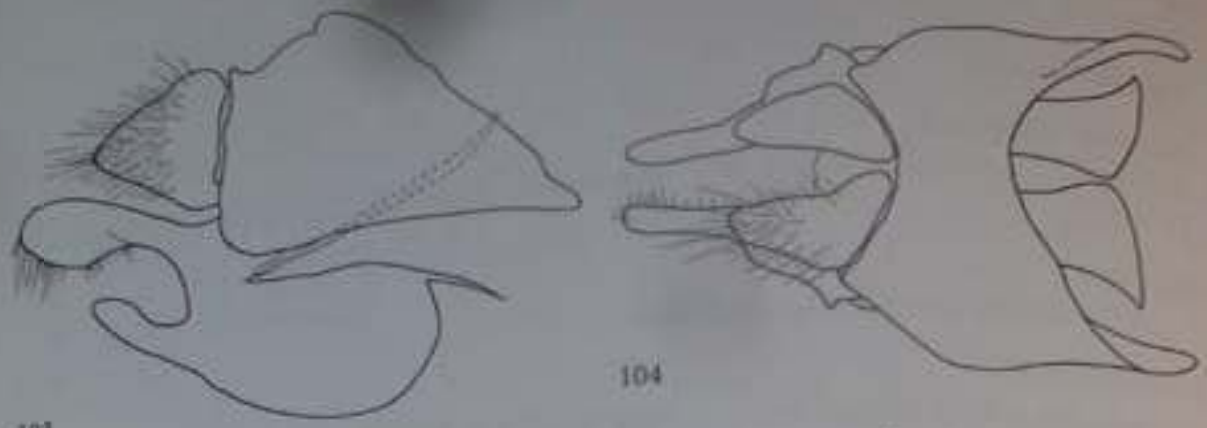
Syritta bulbus Walker, 1849: 553.
Syritta bulbulus Speiser, 1913: 137.
Synonymized by Speiser, 1915: 95. We have not seen any type material, which is regarded lost during WW2.

S. bulbus is one of the most common and widely distributed species in Africa. It is a woodland species which occurs in a large number of isolated forest habitats. It is therefore not surprising to find a considerable degree of variation, which caused us problems in the beginning of this project. South African populations contain specimens which are larger and have darker wings than specimens from western and central Africa.

We have illustrated the male genitalia of a specimen collected in Oribi Gorge Reserve in KwaZulu-Natal (South Africa). It should be noted that the shape of the dorsal surstylar lobe may show some variation between populations.

Diagnostic characters.
The shape and armature of the hind femur (fig. 47) as well as the pattern of the vertical triangle (fig. 53) and of the abdominal terga 1 and 2 (fig. 9) demonstrate its close relationship with the two preceeding species, *Syritta congoensis* new species and *S. senegalensis* new species. The bicoloured hind femur (fig. 47), in combination with presence of a tuberculate subbasal spina and a tomentose scutal vitta only reaching to suture, is diagnostic.

Redescription – male.
Face slightly concave, golden yellow tomentose. Oral margin less protruding than, or level with, frontal prominence. Eye contiguity c. 2.0-3.0. Vertical triangle (fig. 53):



103 104

Figures 103, 104. Epandrium with appendages of *Syritta bulbus* Walker, South Africa, KwaZulu-Natal, Oribi Gorge Reserve. – 103: lateral view; 104 dorsal view.

ratio between tomentose lower part and blackish upper part c. 4.0-5.0/1.0-2.0; tomentum on lower part golden yellow. Distance between eye-margins and anterior ocellus shorter than width of ocellus. Largest facets c. 30 µm. Upper occipital marks distinct. Basoflagellomere yellow; size c. 3.0 x 1.8; arista c. 4.5.

Tomentum of pleura a rather dark yellow-grey, but lower part of katepisternum with a more pure grey tomentum. Postpronotum and lateral scutum to suture yellow-grey tomentose. Scutellum black; its marginal setae weak and pale; one pair of black setae c. 50 µm long. Mesonotal pile yellowish.

Veins and spurious vein strong, black. Stigma brown. Apical part of wing well covered by minute microtrichia, which may be absent from narrow posterior streaks in cells R2+3, R4+5 and DM; in cell DM also with a bare anterior streak basally.

Fore and mid legs yellowish. Hind femur (fig. 47) markedly incrassate, yellowish in basal part and brown-black apically; the ratio between the two differently coloured sections varies a great deal. Ventrobasal profile line straight.

Ventrobasal section of hind femur (fig. 47) with a moderately large, cone-shaped subbasal tuberculate spina in true ventral position. The tubercle carries 2 or 3 small black setulae, and 2 to 5 additional setulae occur towards apex of section. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia with a sharp anteroventral carina; otherwise unmodified. Colour brownish with a yellow base and a yellow ring around middle.

Tergum 1 (fig. 9) brown-black, grey-yellow anterolaterally. Tergum 2 yellow with blackish anterior and posterior fasciae and a brown-black median vitta. Tergum 3 yellow with a black posterior fascia and a black median vitta. Tergum 4 black, with posterior part rather extensively yellow-brown; anterolateral areas of tomentum continuing rather broadly along sidemargins. Sternum 4 with a simple V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 103): cercus triangular, with "root". Dorsal lobe of surstylus gradually wider towards apex, with long ventromedian pilosity at apex and shorter pilosity towards the short stalk. Ventral lobe of surstylus with a long posterior extension. Dorsal view (fig. 104): cerci rather an-

gularly truncated apically. Dorsal lobe of surstyli parallel-sided and simply rounded. Surstylar apodemes separate. Ejaculatory apodeme with an enlarged hood.

Female.
Face as in male. Frons (fig. 78) with a ratio between tomentose lower part and blackish upper part of c. 4.0/5.0, the blackish part with a pair of elongate areas of golden yellow tomentum; the areas sometimes confluent and forming a transverse band. Eye-margins separated from anterior ocellus by a distance shorter than width of ocellus. Basoflagellomere larger than in male and often darkened dorsally and apically. Characters of the thorax, wings, and legs as in male. The terga are broader than in male, and the blackish median vitta of terga 2 and 3 also broader than in male.

Length: 6-8.8 mm.

Material examined.
Type material.
Holotype: ♂. "Syritta bulbus Wlk." (handwritten label) / "Sierra Leone Morgan" (handwritten label) / "Type" (round, blue-margins, printed label) / "Holo-type" (round, red-margined, printed label) (BMNH). Condition: antennae and abdomen missing; left femur, tibia and tarsomeres missing; otherwise in fair condition.

Additional material.
We have seen specimens from Upper Volta, Sierra Leone, Liberia, Ivory Coast, Nigeria, DR Congo, Burundi, Rwanda, Tanzania, Mozambique, Zimbabwe, South Africa, and Swaziland. The great majority of the specimens we have examined are from DR Congo (MRAC).

Distribution.
This species is widely distributed in the Afrotropical region ranging from Liberia in the northwest and Tanzania in the northeast to South Africa (Eastern Cape).

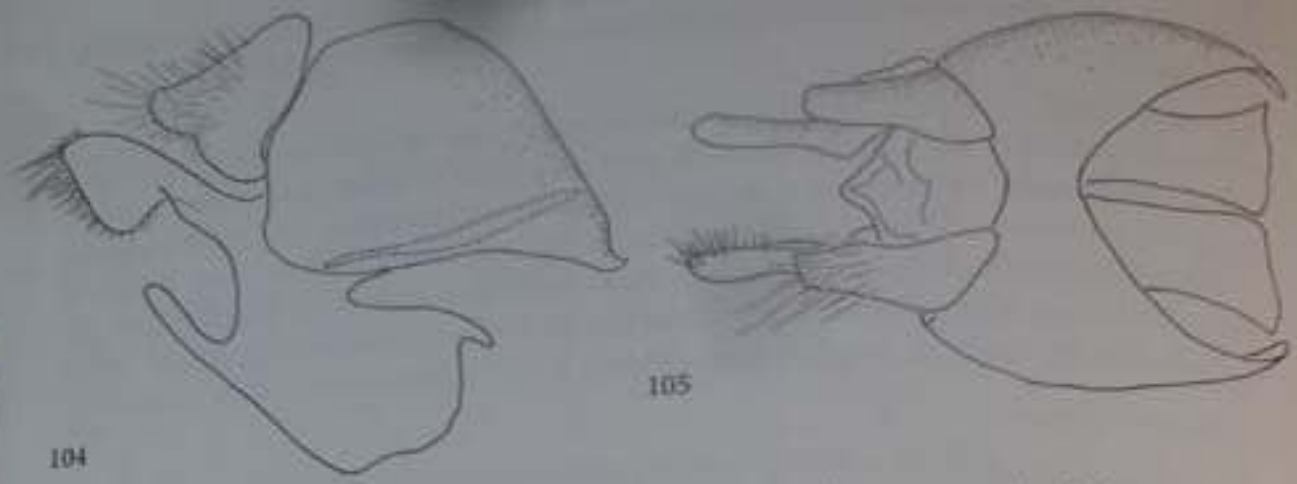
Habitat.
One of us (WB) collected most of his specimens of *S. bulbus* in and near forests and woodlands in Cameroon, Tanzania and South Africa.

Syritta angulata new species

Figs 8, 49, 77, 104, 105.

This is a characteristic species which undoubtedly belongs in the *S. bulbus* species-group. The majority of the material originates from South Africa (Eastern Cape and KwaZulu-Natal) and Zimbabwe, but two male specimens from Kakamega Forest in Kenya have been treated as paratypes. They may deserve subspecific status (see later).

Diagnostic characters.
Both sexes are characterised by a short, broad-based ventral spina on a uniformly coloured hind femur, an uniformly wide scutal vitta, a usually partly leather-brown scutellum, smoky wings, and predominantly yellow-brown terga 1-3 (fig. 8); the female is also characterised by a shining brown-black median callus on frons (fig. 77).



104 105

Figures 104,105. Epandrium with appendages of *Syritta angulata* new species, holotype, South Africa, Cape, Garden of Eden Forest. – 104: lateral view, 105: dorsal view.

Description – male.

Face slightly concave; tomentum yellow-grey. Oral margin slightly less projecting than frontal prominence. Eye contiguity relatively long: c. 3.5. Vertical triangle (fig. 49): ratio between tomentose lower part and blackish upper part c. 3.5/2.0; tomentum yellow-grey. Eye-margins separated from anterior ocellus by less than width of ocellus. Ocellar plate without tomentum. Largest facets c. 40 µm. Occipital marks small but distinct. Basoflagellomere yellow-brown, blackened along dorsal and apical margins; size c. 2.8 x 2.0; arista c. 4.0.

Tomentum of pleura, postpronotum and lateral scutum to suture greyish to yellow-grey, scutal vitta being remarkably wide and of uniform width throughout. Remaining part of scutum black, very densely puncturate, and with very short dark pilosity. Scutellum with similar puncturation and pilosity; its ground-colour blackish, but in some South African specimens leather-brown along posterior margin. Marginal scutellar setae very short, black; one pair of setae distinct, only 30-40 µm long.

Veins and spurious vein blackish, very distinct. Wing surface with a smoky tinge; stigma brownish. Wing surface distal to cross-vein R-M with an uniform covering of microtrichia.

Fore and mid legs yellow-brown; in the two Kenyan paratypes the femora are dark brownish in basal half. Hind femur incrassate, uniformly dark brownish to black; ventrobasal profile line straight.

Ventrobasal section of hind femur with a broad-based tubercle at a distance from base which equals two times maximum width of hind tibia; this tubercle usually has 2 minute setulae. Further towards apex of section 3 or 4 much smaller tubercles, each with 1 or 2 minute blunt setulae. Ventroapical section of hind femur with the usual armature; 4 or 5 posteroventral setae before apex; they are long and sharp.

Hind tibia slender, of uniform width, and unmodified except for the usual anteroventral carina; colour uniformly brownish, or paler at base and in a ring around middle.

Tergum 1 (fig. 9) uniformly yellow-brown. Terga 2 and 3 also yellow-brown, and with a brown-black posterior fascia occupying less than one third of tergal length;

a median vitta occurs at most as a trace of a shadow. Tergum 4 slightly wider than tergum 3, black, with brownish integument posteriorly. Anterolateral areas of yellow-grey tomentum continuing as a gradually narrower strip along sidemargin, and a very narrow strip of tomentum along posterior margin present. Sternum 4 with a deep V-shaped incision into posterior margin; about a dozen rather strong yellowish setae anteriorly.

Genitalia. Lateral view of epandrium and its appendages (fig. 104): cercus subtriangular, concave ventrally. Dorsal lobe of surstylus with a straight dorsal margin; it is composed of a basal shaft, and a triangular, drooping apical part which has a rather long pilosity on ventromedial margin at apex. Ventral lobe of surstylus with a long and narrow process on posterior ventral corner. Dorsal view (fig. 105): cerci of gradually decreasing width, apically rather abruptly truncated. Dorsal surstylar lobes rather parallel-sided, all pilosity is situated on the median surface. Surstylar apodemes separate. Ejaculatory apodeme of the big-hooded type.

Female.
Can at once be recognized by the shiny brown-black callus on middle of frons (fig. 77), the equally wide scutal vitta, and the extensively brownish scutellum. Somewhat larger than the male: up to c. 9 mm.

Length: 7-9 mm.

Material examined.
Holotype: ♂. South Africa, Cape, Garden of Eden Forest, East Knysna, 34°01' S, 23°09' E, forest margin, 8.IX.1993, leg. Barraclough (NMSA).

Paratypes:
1 ♂. Kenya, Kakamega Forest nr Shinyalu, 1650 m, 24.II.1989, leg. Schouten (ZMAN);
1 ♂. Kenya, Kakamega Forest, 5200 ft, 18.XII.1970, leg. Stubbs (BMNH);
1 ♂. Zimbabwe, N. Vumba, 30.VII.1964, leg. D. Cookson (ZMUC);
1 ♂. Zimbabwe, N. Vumba, 16.VIII.1964, leg. D. Cookson (NMSA);
3 ♂♂. South Africa, KwaZulu-Natal, Pietermaritzburg, Ferncliff Nature Reserve ("Townbush"), (Lemonwood Trail nahe [= near] Sunset Rock), 29°33' S, 30°20' E, 12.XI.2000, leg. Barkemeyer (Bkm);
1 ♂. South Africa, KwaZulu-Natal, Drakensberge, Cathedral Peak b. [= near] Winterton, Rainbow Gorge, Wald [= forest], 1500 m, 25.II.2000, leg. Barkemeyer (Bkm);
1 ♂. South Africa, KwaZulu-Natal, Drakensberge, Cathedral Peak b. [= near] Winterton, Rainbow Gorge, Wald [= forest], ca. 1700 m, 27.II.2000, leg. Barkemeyer (Bkm);
1 ♂. South Africa, KwaZulu-Natal, Pietermaritzburg, Ferncliff Nature Reserve, ("Town Bush") (nahe [= near] Sunset Rock), 28.I.2002, leg. Barkemeyer (Bkm);
1 ♀. South Africa; Cape Prov.; Hogsback, 3226 DB, forest & forest margins, 13.-16.XII.1985, leg. J. & B. Londt (NMSA);
2 ♀♀. South Africa, N. Transvaal, Entabeni For. Station, Zoutpansberg Range, 2230 CC, indigenous forest, I.1975, leg. Stuckenberg (1 ♀: NMSA, 1 ♀: ZMUC).

Distribution.
The distribution of this species ranges from South Africa (Knysna, Eastern Cape) in the southeast to Kenya (Kakamega Forest) in East Africa.

Habitat.
S. angulata appears to be a forest species.

Etymology.
The name refers to the right-angled dorsal surstylar lobe.

Syritta rufa new species

Figs 3, 10, 52, 106, 107.

This peculiar species was discovered by one of us (WB) in Maputaland in the north-eastern corner of South Africa in March 1999. By its nearly entirely brownish coloration and small size it cannot be confused with any other species except for the three species of the *S. tomentosa* species-group. They have, however, an extended tomentum on scutum, whereas in *S. rufa* new species a tomentose vitta to suture occurs, and they also possess a more extensive brown-black pattern on tergum 4.

Diagnostic characters.
The species possesses several striking autapomorphies: The venation (fig. 3) is unique for a *Syritta*, as veins R4+5 and M1 are more straight than usual; the terga 1 and 2 are patterned as shown in fig. 10, i. e., orange-yellow with a narrow posterior fascia; the male genitalia (figs 106, 107) are distinctive, dorsal lobe with a finger-shaped process near base and ventral lobe very small.

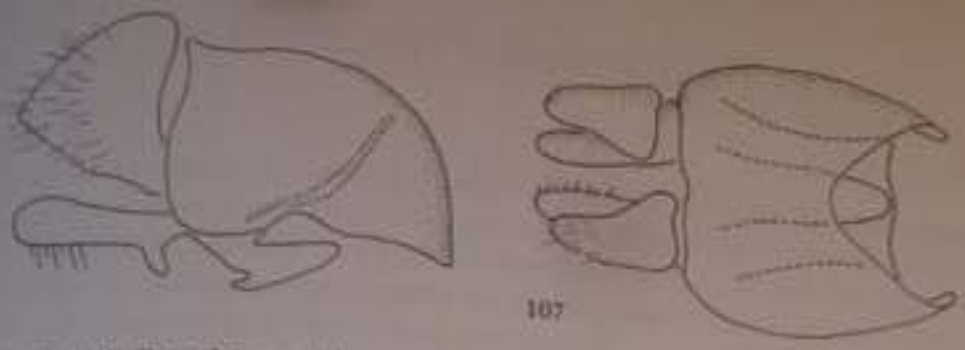
Description – male.
Face distinctly concave, grey-yellow tomentose. Oral margin less projecting than frontal prominence. Eye contiguity long compared to size of species: c. 2.5-3.0. Vertical triangle (fig. 52): ratio between tomentose lower part and blackish upper part is c. 2.5/3.5, but tomentum not reaching eye contiguity, so total frontal height is c. 6.5. Eye margins separated from anterior ocellus by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks indistinct. Basoflagellomere yellow; size c. 3.0 x 1.6, i. e. narrow; arista c. 3.6.

Tomentum of pleura, postpronotum and lateral scutum to suture rather dark grey-yellow, scutal vitta wide. Rest of scutum and scutellum black; subapical pair of black setae c. 65 µm long. Mesonotal pile golden.

Veins and spurious vein blackish and very well marked. Veins R4+5 and M1 (fig. 3) more straight than in other species of *Syritta*, and so the typical sock-shaped cell R4+5 is not formed. Stigma yellow-brown. Microtrichia are distributed in the distal parts of cells R1, R2+3, R4+5 and DM, as well as along posterior wing-margin.

Fore and mid legs yellowish. Hind femur moderately incrassate, yellow-brown, darkened around extreme apex. Ventrobasal profile line almost straight.

Ventrobasal section of hind femur with a rather small cone-shaped subbasal spina which has 2 minute black setulae. Further towards apex of section 4 or 5 irregularly



106 107

Figures 106, 107. Epandrium with appendages of *Syritta rufa* new species, holotype. South Africa, Maputaland, St. Lucia. – 106: lateral view; 107: dorsal view.

arranged tubercles, each with a black setula. Ventroapical section of hind femur with the usual armature, which includes 4 or 5 black posteroventral setae before apex.

Hind tibia yellow-brown, unmodified except for the usual anteroventral carina.

Tergum 1 (fig. 10) entirely orange-yellow. Terga 2 and 3 orange-yellow, each with a narrow black posterior fascia which becomes wider laterally. Tergum 4 narrower than tergum 3, orange-yellow and with a blackish spot on each posterolateral corner. Sternum 4 with a V-shaped incision.

Genitalia. Externally entirely yellowish. Lateral view of epandrium and its appendages (fig. 106): cercus short and high, with "root". Dorsal lobe of surstylus as long as cercus, slightly widening towards apex; at ventral base with a ventrally directed finger-shaped process; pile present on inner side of apical half. Ventral lobe of surstylus very small. Dorsal view (fig. 107): Tergum 9 has a large extension in the dorsal midline. Cerci broad-based, median margin concave. Apical parts of dorsal surstylar lobes parallel-sided. Surstylar apodemes fused for a short distance.

Female.
Unknown.

Length: c. 5-6.5 mm.

Material examined.
Holotype: ♂. S. Africa, Maputaland, St. Lucia, Gwalagwala Trail, 5.III.1999, leg. Barkemeyer (NMSA).

Paratypes: 3 ♂♂. With same data as holotype (2 ♂♂: Bkm; 1 ♂: ZMUC).

Distribution.
S. rufa new species is only known from its type locality in the northeastern part of the KwaZulu-Natal Province (South Africa).

Habitat.
All type-specimens were collected in a dry forest, flying in a semi-shaded situation between bush twigs above a rotting tree trunk.

Etymology.
The name refers to the body colour.

III. The *tomentosa* species-group

This species-group includes three undescribed species: *S. tomentosa* new species, *S. unicolor* new species, and *S. breva* new species; the latter two species are known only in the female sex. All three species seem to be widely distributed in tropical Africa.

The three species are characterised by an extensive distribution of yellow scutal tomentum, which reaches the scutellum and does not stop at the suture as usual in *Syritta*, and by the extensive distribution of yellow integument on the abdomen. All three have bicoloured hind femora (figs 44, 45); *S. tomentosa* and *S unicolor* have a tuberculate spina or a low bump in a ventral, subbasal position on the hind femur, whereas *S. breva* has only a uniformly shaped slender setula in the ventrobasal section of the hind femur.

We have some doubts about the monophyly of this species-group, but this problem can only be resolved when the males of *S. unicolor* and *S. breva* are known.

The sparse material of *S. tomentosa* shows an equal sex ratio of 13 males to 12 females. This is unusual in *Syritta*, because museum material of most species contains two to three times as many males as females. Other exceptions from this rule are the two other species included in the *tomentosa* species-group: *S unicolor* and *S. breva*; they are known only in the female sex (for details, see under each species).

Syritta tomentosa new species

Figs 11, 44, 48, 76, 108, 109, 111.

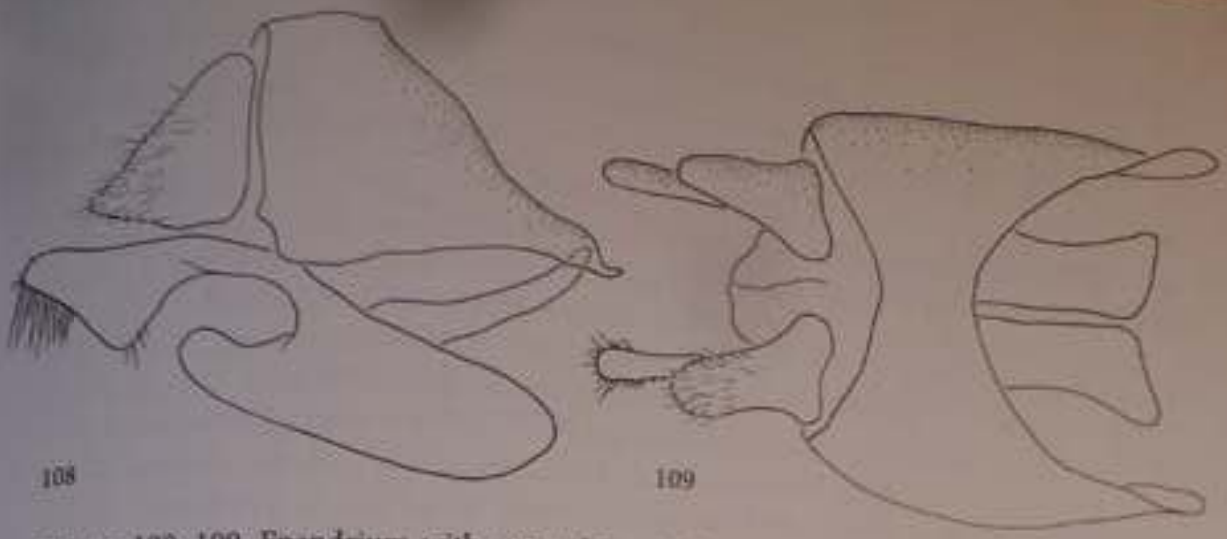
S. tomentosa new species is a close relative of *S. bulbus* Walker, as suggested by both external characters and details of the male genitalia. The distribution of *S. tomentosa* seems restricted to central and western Africa, whereas *S. bulbus* also occurs in southern and eastern Africa. We have not been able to demonstrate any sympatric occurrence by locality for the two species.

Diagnostic characters.

Hind femur (fig. 44) bicoloured: basal 2/3 yellow, apical 1/3 dark brown; golden yellow scutal vitta to scutellum; tergum 1 (fig. 11) extensively yellowish; frons (figs 48, 76) in both sexes with extensive tomentum. The dorsal lobe of the surstylus (fig. 108) is triangular, and the posterior projection of the ventral surstylar lobe is short and wide.

Description – male.

Face slightly concave, with a thick golden tomentum. Oral margin level with frontal prominence. Eye contiguity c. 2.5. Vertical triangle (fig. 48) with golden yellow tomentum reaching posterior ocelli. Distance between anterior ocellus and eye-margin shorter than width of ocellus. Largest facets c. 40 µm. Occiput with continuous golden yellow tomentum from vertex to gena. Basoflagellomere pale yellow; size c. 2.5 x 2.0; arista c. 4.0.



108 109

Figures 108, 109. Epandrium with appendages of *Syritta tomentosa* new species, holotype, Cameroon, Douala. – 108: lateral view; 109: dorsal view.

Tomentum of katepisternum grey-yellow, of katepimeron, postpronotum, lateral scutum to scutellum golden yellow; remainder part of scutum, greyish brown and not markedly contrasting with lateral vitta. Scutellum more blackish than scutum; a weak pair of dark setae, c. 60 µm long. Mesonotal pilosity yellowish and remarkably long, especially on scutellum.

Veins and spurious vein dark brownish, distinct. Wing surface with a grey-brown tinge, and stigma dark brown. Small but distinct microtrichia present in apical parts of the R-cells and cell DM, and on area between marginal veins and posterior wing margin.

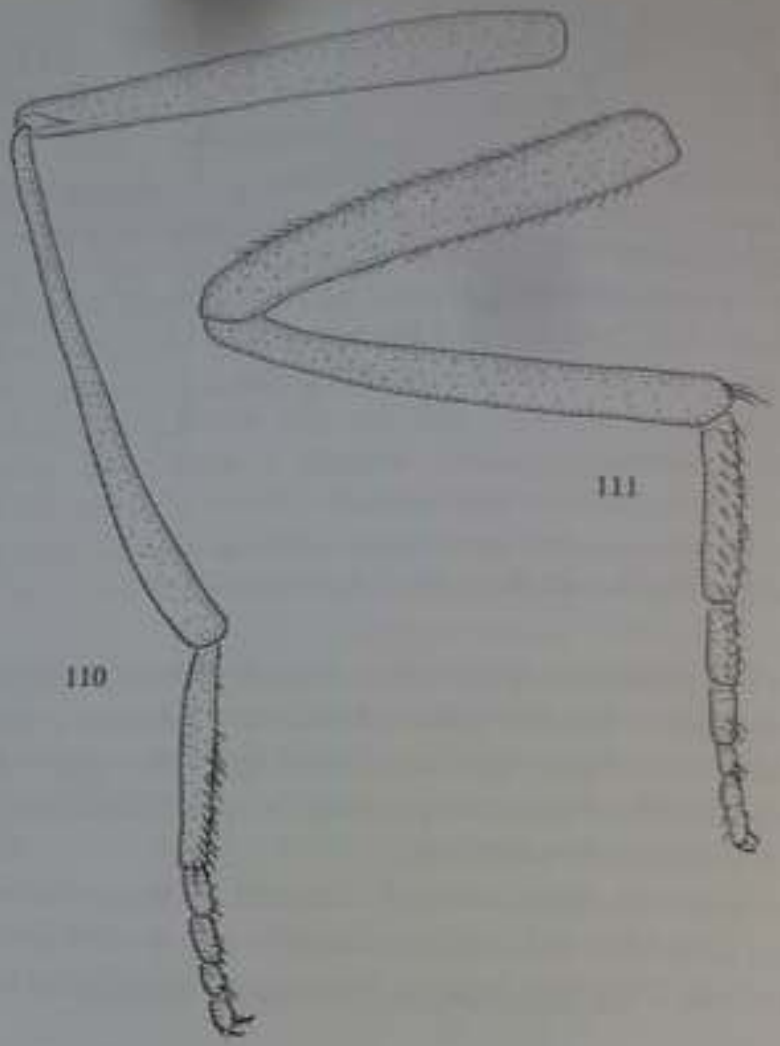
Fore and mid legs yellowish, of "normal" dimensions (as in fig. 111). Hind femur incrassate, ventrobasal profile line slightly concave; colour: yellow in about basal two-thirds, dark brown in slightly more than apical third (see fig. 44).

Ventrobasal section of hind femur with a short tuberculate ventral spina in some distance from base; it usually has 2 small black setulae. Further towards apex of section 5 to 7 much smaller tubercles, each carrying a small setula. Ventroapical section of hind femur with the ususal armature; with 4 or 5 posteroventral setae before apex.

Hind tibia unmodified except for the usual anteroventral carina; its colour yellowish with a brown ring in basal half that corresponds in extent to the brown apex of the femur, but extreme base also yellow.

Tergum 1 (fig. 11) entirely yellowish, or slightly darkened at middle. Terga 2 and 3 also yellowish, but some specimens show traces of a brownish posterior fascia and a median vitta. Tergum 4 is wider than tergum 3, especially before middle where forming a swelling. In dorsal view tergum 4 appearing shining black with anterior fifth paler brown-yellow, and also the posterior end may show paler brown-yellow. In lateral view the extent of grey-yellow tomentum is remarkable and includes large anterolateral areas, which continue to posterior corner as a broad lateral rim, and a broad posterior strip. Sternum 4 appearing short and rather protruding, with a deep V-shaped incision into posterior margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 108): cercus short



Figures 110, 111. Female mid leg of 110: *Syritta breva* new species and 111: *S. tomentosa* new species.

triangular, rather pointed. Dorsal lobe of surstylus with a short basal stalk that is directed postero-medially; the distal part of the lobe formed by a large triangular drooping lobe which has rather long setae on inner ventral margin. Ventral surstylar lobe with a posterior projection which nearly reaches ventral angle of dorsal surstylar lobe. Dorsal view (fig. 109): cerci small, triangular, with rounded corners. Apical part of dorsal surstylar lobes parallel-sided. Surstylar apodemes separate. Ejaculatory apodeme with enlarged hood.

Female.

Face as in male. Frons (fig. 76) with a ratio between tomentose lower part to blackish upper part of c. 3.0/5.5, the blackish part with a pair of large golden yellow tomentose areas which in some specimens are confluent and thus form a band. Basoflagellomere larger than in male, c. 3.0 x 2.0. Thorax, wings, and legs as described for male. Tergum 1 yellowish as in male, but terga 2 and 3 with a distinct brown-black posterior fascia and a similarly coloured median vitta of c. one-fifth of tergal width. Tergum 4 brown-black, with large yellow anterolateral areas and a wide posterior strip of yellow integument.

Length: 6-7 mm.

Material examined.
Holotype: ♂, Cameroon, Douala, 6.-9.VII.1974, leg. J. A. W. Lucas (ZMAN).

Paratypes:
1 ♂, Sierra Leone, [no precise locality], 14.II.1925, leg. E. Hargreaves (BMNH);
3 ♂♂, 2 ♀♀, Liberia, Robertsport, 1.IV.1943 (1 ♂), 4.IV.1943 (1 ♂), 27.X.1943 (1 ♂, 1 ♀), 11.IV.1943 (1 ♀), leg. F.M. Snyder (AMNH);
1 ♂, Nigeria, Ile-Ife, 31.XII.1969, leg. Medler (CNC);
7 ♂♂, 10 ♀♀, Same data as the holotype (ZMAN & ZMUC);
1 ♂, Cameroon, Douala, 25.VIII.1975, leg. J. A. W. Lucas (ZMAN);
1 ♀, Cameroon, Kribi, 11.VII.1974, leg. J. A. W. Lucas (ZMAN);
2 ♂♂, Cameroon, 85 km WSW Yaounde: Eseka: 1 km SSW, 12. & 15. III.1984, leg. Barkemeyer (Bkm);
1 ♂, Cameroon, 85 km WSW Yaounde: Eseka: 3 km W: Djogob, 14.III.1984, leg. Barkemeyer (Bkm);
1 ♀, DR Congo, Bumba, XII.1939-I.1940, leg. H. De Saeger (MRAC).

Distribution.
This species seems to be restricted to central and western Africa.

Etymology.
The name refers to the extensive scutal tomentum.

Syritta unicolor new species

Fig. 75.

As mentioned in the introduction to the *S. tomentosa* species-group, there is usually a clear majority of males in the collections. It is therefore surprising to find that in two species there is a substantial material of females but no males. One of these species is *S. unicolor* new species, which is known from 7 female specimens; the other is *S. breva* new species known from 15 specimens. Generally we have avoided describing new species based only on the female sex, although a number of female specimens could not be safely assigned to species treated in this paper. But with the two mentioned species we are making an exception.

Diagnostic characters.
The bicoloured hind femur has a peculiar pattern (as described below); head (fig. 75), pleura and scutum entirely covered by a golden yellow tomentum; tergum 4 yellow with a three-lobed brown-black fascia separated from posterior margin.

Description – male.
Unknown.

Female.
Face with a marked concavity. Oral margin level with frontal prominence. Eye-mar-

gins separated from anterior ocellus by less than width of ocellus. Basoflagellomere yellow; size c. 3.0 x 2.1; arista c. 5.0. Entire head (fig. 75) covered by golden yellow tomentum.

Pleura and scutum entirely covered with golden yellow tomentum. Scutellum blackish, its marginal setae weak and pale; one pair of slightly stronger setae distinct, their length c. 70 µm. Mesonotal pile yellow.

Veins and spurious vein brownish, of about equal strength. Stigma dark brownish, and entire wing surface with a brownish tinge. Part of wing distal to cross-vein R-M with a thin but nearly complete covering of minute microtrichia.

Fore and mid legs yellow; mid leg with "normal" dimensions (as in fig. 111). Hind femur moderately incrassate, ventrobasal profile line straight. Femoral pattern very characteristic (and constant in the 7 specimens examined): yellow, with two pale brownish areas, the first forming a semicircle ventroapically, the second covering an anterodorsal strip before apex; between these dark areas a wedge-shaped yellow area of characteristic shape appears.

Ventrobasal section of hind femur with a low, setula-free ventral bump in a distance from femoral base equal to twice tibial width. Furthermore, towards apex of section with an additional 3 to 7 small tubercles, each tubercle with a minute black setula. Ventroapical section of hind femur with the usual armature, also including 4 or 5 black posteroventral setae before apex.

Hind tibia with the usual anteroventral carina; otherwise unmodified. Colour dark brown in about apical third; basal two-thirds yellowish, partly infuscated.

Abdomen predominantly yellow with a brown-black pattern as follows: tergum 2 with a nearly parallel-sided posterior fascia occupying c. one-fourth of the tergum; also a median vitta of c. one-fifth tergal width; this vitta becomes slightly wider towards anterior margin, and continues on to tergum 1. Tergum 3 with a similar pattern, but median vitta not reaching anterior margin. Tergum 4 yellow with a three-lobed brown-black fascia that is broadly separated from posterior margin by yellow integument; anterolateral areas with a slight whitish tomentum.

Length: 6-7 mm.

Material examined.

Holotype: ♀. Uganda, Entebbe, 10.VI.1972, leg. Falke (CNC).

Paratypes:

1 ♀. Cameroon, Lolodorf, 11.XI.1913, leg. Good (CNC);
1 ♀. Gabon, Ogooui-Ivindo, Makokou, 0°34' N, 12°52' E, 5.III.1990, leg. Wieringa (ZMAN);
1 ♀. DR Congo [=Congo belge], Rwankwi, 31.III.1916, leg. Leroy (MRAC);
1 ♀. DR Congo [=Congo belge] (Stan.) [probl. = Stanleyville, = Kisangani], Bafwasende, XI.1945, leg. François (MRAC);
1 ♀. DR Congo [=Congo belge], Rutshuru, 5.XII.1937, leg. Ghesquiere (RMNH);
1 ♀. Uganda, Entebbe, in forest, 20.VI.1972, leg. Falke (CNC).

Distribution.

This species occurs in central Africa.

Etymology.
The name refers to the entirely tomentose head, pleura and scutum.

Syritta breva new species

Figs 45, 74, 110.

This species seems to be widespread in tropical Africa, and it is a puzzle as to why only female specimens have been collected. A total of 15 females can be recorded from 9 localities in 5 countries.

Diagnostic characters.
The bicoloured hind femur (fig. 45) has only slender setulae of equal size; scutum with extensive yellow-grey tomentum (see below); pilosity of scutum and scutellum remarkably long; middle femur and tibia (fig. 110) very slender; frons as in fig. 74, but degree of tomentation variable (see below).

Description – male.
Unknown.

Female.
Face strongly concave, yellow-grey tomentose. Oral margin projecting beyond frontal protuberance. Eye-margins separated from anterior ocellus by less than width of ocellus. Frons (fig. 74) yellow-grey tomentose on lower half and shining black on upper half, on upper blackish half a broad yellow-grey tomentose band that may connect to tomentum on lower half so that only extreme upper part of frons is shining black for a distance equal to height of ocellus. Ocellar plate shining black. Upper occipital margin entirely yellow-grey tomentose. Basoflagellomere yellow; size c. 2.5 x 2.0; arista c. 4.0.

Pleura entirely yellow-grey tomentose. Scutum also with extensive yellow-grey tomentum covering a broad lateral vitta from postpronotum to scutellum and connecting from side to side in front of scutellum. Central part of scutal disc and whole scutellum black. Pilosity of scutum and scutellum golden yellow and remarkably long.

Veins and spurious vein brown-black and well-marked. Stigma pale brownish. Wing appearing narrow and with a smoky tinge. Part of wing distal to cross-vein R-M with a thin but uniformly distributed cover of microtrichia.

Fore and mid legs yellow. Both legs, but especially femur and tibia (fig. 110) of mid legs are very slender compared to related species. Hind femur (fig. 45) only slightly incrassate, its ventrobasal profile line slightly concave; colour strongly contrasting: yellow in basal two-thirds, brown-black in apical third.

Ventrobasal section of hind femur without any subbasal tuberculate spina or bump, with 8 to 10 irregularly arranged and moderately sharp-tipped black setulae placed on minute tubercles. Ventroapical section of hind femur with the usual armature, including 5 or 6 black posteroventral setae before apex.

Hind tibia with a sharp anteroventral carina; largest width occurs 1/3 before apex and thereafter narrowing towards apex and base; colour brownish, yellowish at base and in a ring after middle.

Abdomen yellow with a brown-black pattern similar to that found in *Syritta unicolor* new species. Tergum 2 with a posterior fascia occupying c. one-third of tergal length; median vitta narrower than in *S. unicolor*, only occupying c. one-eighth of tergal width. Tergum 3 similar to tergum 2, but median vitta not reaching anterior margin. Brown-black fascia of tergum 4 wider than in *S. unicolor*, and only with a median lobe; anterolateral tomentum not evident.

Length: 5-6 mm.

Material examined.
Holotype: ♀, Cameroon, C.S. Yaounde, 20.VIII.1975, leg. Lucas (ZMAN).

Paratypes:
2 ♀♀, Ghana, Ashanti, Kumasi, 24.X.1907, leg. W. M. Graham (1 ♀: BMNH, 1 ♀: ZMUC);
1 ♀, Ghana, Ashanti, Obuasi, 1135 m, 31.VIII.1907, leg. W. M. Graham (BMNH);
1 ♀, Cameroon, S, Kribi, 20.VII.1975, leg. Lucas (ZMAN);
1 ♀, Cameroon, C.S., Yaounde, 9.VII.1975, leg. Lucas (ZMAN);
2 ♀♀, Cameroon, 110 km SSW Yaounde: Ebolowa: 2 km N, Bilon, 1.III.1984, leg. Barkemeyer (Bkm);
2 ♀♀, Cameroon, Ebolowa: 1 km SW, im Wald [= in forest], 2.III.1984, leg. Barkemeyer (Bkm);
1 ♀, Cameroon; Ebolowa: 4 km E, Essinquili, 3.III.1984, leg. Barkemeyer (Bkm);
1 ♀, Cameroon, 85 km WSW Yaounde: Eseka: 1 km SSW, 12.III.1984, leg. Barkemeyer (Bkm);
1 ♀, DR Congo ["Congo belge"], Bafwesende: Batama, 3.III.1946, leg. François (MRAC);
1 ♀, Uganda, Ankole W. Kalinzu Forest, VI.1972, leg. Falke (CNC);
1 ♀, Kenya, Kakamega Forest nr Shinyalu, 1650 m, 23.II.1989, leg. Schouten (ZMAN).

Distribution.
S. breva is restricted to central Africa and adjacent areas.

Habitat.
According to the observations of one of us (WB) in Cameroon, *S. breva* prefers forest habitats.

Etymology.
The name refers to the slender mid femur and tibia.

IV. The *stigmatica* species-group

We have placed *Syritta stigmatica* Loew, which is a widespread species in eastern and southern Africa, in a species-group of its own and following on from the *S. bulbus* and *S. tomentosa* species-groups. Several characters of the male genitalia support a relationship between these three species-groups: the short cercus, the drooping lobe of the dorsal surstylar lobe, and the relatively elongate posterior projection on the ventral surstylar lobe. As in the *S. bulbus* species-group members, the hind femur of *S. stigmatica* does not possess a row of 4 to 6 long thin whitish setae on the postero-ventral surface, as is characteristic for the species included in the following species-groups. This absence of thin whitish setae on the posteroventral surface of the hind femora probably represents a symplesiomorphy for the species-groups I-IV.

Syritta stigmatica has an autapomorphy in the presence of one to several low transverse laminae on the ventral apical third of the hind tibia. Another autapomorphy may be the presence of a membrane which covers the [illegible] part of the incision into the male sternum 4. A similar membrane occurs also in members of the *Syritta flaviventris* species-group.

The absence of a hind femoral tuberculate spina and the relatively poor development of the other armature on the ventrobasal surface of the hind femur may represent plesiomorphies.

Syritta stigmatica Loew, 1858

Figs 12, 42, 57, 84, 87, 112, 113.

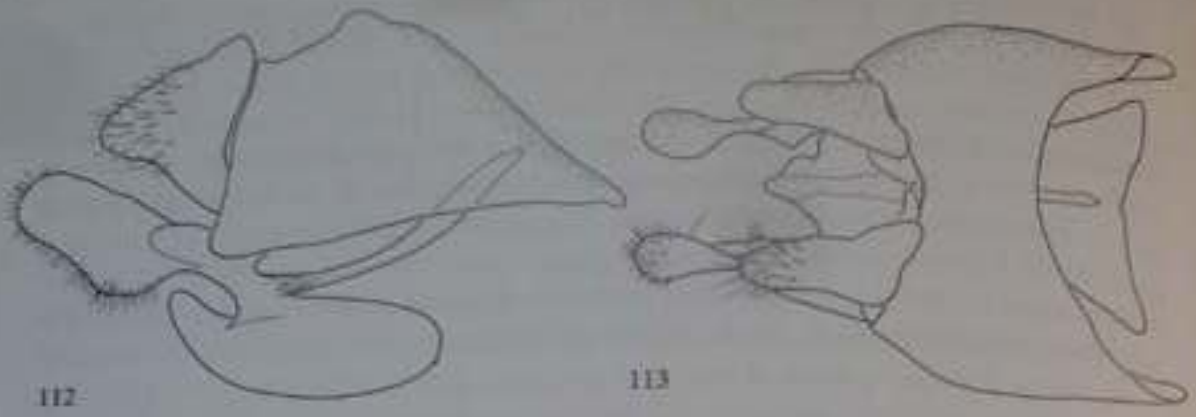
Syritta stigmatica Loew, 1858: 377.
Syritta pleuritica Speiser 1910: 127.

See the introduction to the species-group for its diagnostic characters.

Redescription – male.
Face slightly concave, with a thin silky white-grey tomentum. Oral margin level with frontal prominence. Eye contiguity c. 3.5. Vertical triangle (fig. 57) with a ratio between tomentose lower part and blackish upper part of c. 3.5/2.0; tomentum grey-brown. Distance between eye-margins and anterior ocellus shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere red-brown, often darkened along dorsal and apical margins, sometimes totally black; size c. 2.5 x 1.8; arista c. 4.0.

Tomentum of katepisternum and anterior part of anepisternum greyish, on posterior part of anepisternum yellow-grey with a reddish tinge, and on postpronotum and lateral scutum to suture yellow-grey. Scutellum black, pair of subapical setae c. 60 µm long. Mesonotal pile golden, extremely short.

Veins and spurious vein blackish and well-marked. Stigma dark brown. Apical part of wing with small microtrichia in the following areas: apical third of cell R1, apical



112 113

Figures 112, 113. Epandrium with appendages of *Syritta stigmatica* Loew, South Africa. – 112: lateral view; 113: dorsal view.

half of cell R2+3, cell R4+5 except for anterobasal and posterobasal streaks, and area between wing margin and marginal veins. Cell DM has a sparse covering of microtrichia on most of its surface.

Fore and mid legs yellow-red to reddish brown. Hind femur (fig. 42) dark red-brown, slightly paler at base and in ventroapical section; may also be uniformly chestnut-brown to blackish. Ventrobasal profile line straight.

Ventrobasal section of hind femur weakly armed: only 2 to 5 very small tubercles in a row, none of them subbasal, and each with a very minute setula. Ventroapical section of hind femur with the usual armature, with 3 to 5 posteroventral setae before apex.

Hind tibia with one distinct lamina or a system of several smaller laminae which cross the ventral surface from the anteroventral apex to the posterior side at one third. Colour dark brown, with an indistinct paler ring around middle.

Tergum 1 (fig. 12) with a brown-black area occupying most of its surface, anterolaterally red-yellow. Terga 2 and 3 yellow, with brown-black posterior fasciae, which send a more or less distinct, but always narrow, dark vitta towards anterior margin. This is reached on tergum 2, not on tergum 3. Tergum 4 shining black, with narrow, well-marked yellow-brown posterior strip, and with anterolateral areas of tomentum which also narrowly cover entire sidemargin. Sternum 4 with a V-shaped incision, which is deep on median third and is here covered by a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 112): cercus subtriangular, high compared to length, and with a wide "root". Dorsal lobe of surstylus short, wide, slightly drooping at base, as if sitting on a shaft; pilosity present along apical and ventral surfaces. Ventral lobe of surstylus oval, markedly projecting posteriorly. Dorsal view (fig. 113): cerci gradually narrowing towards apex. Dorsal surstylar lobes like twisted. Surstylar apodemes fused for a short distance. Ejaculatory apodeme (fig. 87) with a much larger hood than aedeagal apodeme.

Female.

This sex is not easily recognized. Face as in male. Frons (fig. 84) with a ratio between tomentose lower part to blackish upper part of c. 4.0/5.0; tomentose areas on upper

part usually small and always separated. Distance between eye-margins and anterior ocellus longer than width of ocellus. Thorax, wings and legs coloured as in male. Hind femur ventrobasally with the same sparse armature, i.e. 3 to 5 tubercles, each tubercle with a minute setula, but the tubercles themselves being larger than in the male where they are very minute. Hind femur lacks long thin whitish setae on the posteroventral surface. Hind tibia as in male with a low lamina, or some laminae, on the ventral surface of the apical third. The abdominal pattern is very variable, tergum 2 usually being blackish on at least median third, and may also be more extensively blackish so that only a narrow lateral strip is yellow-brown. Terga 3 and 4 predominantly blackish with paler anterolateral areas, tergum 3 usually with yellow-brown integument with a more or less intense covering of tomentum, tergum 4 with greyish tomentum.

Length: 7-9 mm.

Material examined.
Type material.
Syritta stigmatica Loew, 1858
Lectotype: ♂. "Cap. B. Sp.", "Wahl / berg", "232" (NHRS). Indicated as lectotype by P.H. v. Doesburg, Jr. 2002, and published herewith. In good condition.
[Syntype] paralectotype: ♂ "Victorin" (dissected), and paralectotype [syntype] ♀, "Wahlberg" (NHRS).

Syritta pleuritica Speiser, 1910
Lectotype: ♂. "Kilimandjaro / Sjöstedt / 1905-6", "Kibonoto / 1300-1950 m", "15 Maj", and "Type / Syritta pleuritica / P. Speiser det." (NHRS). Indicated as lectotype by P.H. van Doesburg, Jr. 2002, and published herewith. In good condition.
Paralectotype: ♀, same labels, except for "aug." (NHRS).

Additional material.
We have seen material from the following localities:

Ethiopia: Addis Abeba;
Tanzania: Kilimandjaro area; Usambara Mts.;
Uganda: Ibanda;
Burundi: Buruvi (1800 m);
Rwanda: Prov. Gyangugu: Nyakabuye; Rwankuba, 2200 m;
DR Congo ["Congo belge"]: Elisabethville [= Lubumbashi]; Ituri: Blukwa; Kivu: Ibanda; Lomami; Parc National de la Garamba, Lusinga, 1760 m; Parc National de Albert;
Malawi: Ntchisi Forest Res.; Viphya Mts.;
Mozambique: Gorongoza Mountain;
Zimbabwe: N. Vumba;
South Africa: Albany District; Blyde river; Broadmoor; Bruynshill; Camperdown; Clanwilliam Dist.; Drakensberge Mts.; Doornkloof; Dutiots River at Franschoek Pass; Grahamstown; Hilton; Howick; Indumeni Forest; Ingeli Forest Res.; Ixoho; Johannesburg; Jonkershoek Forest Res.; Karkloof; Kleinmond; Kleinmond Coastal Nat. Res.; Langeberg Mts., Maden Dam; Nottingham Road; Pietermaritzburg; Port

Elisabeth; Port St. Johns; Pretoria; Rhodes village; Richmond; Silverdale; Stellenbosch; Umzimkulu; Vernon Crookes; Willowmore;
Swaziland: Mafutseni; Manzini;
Lesotho: Molimo Lodge;
St. Helena: Varney's.

Distribution.
The range of *S. stigmatica* covers the highlands of central and eastern Africa, northwards to Ethiopia; in southern Africa more widely distributed. Also St. Helena. We cannot confirm occurrence in western Africa, see map 73 in Dirickx (1998: 178).

Habitat.
This species can be fairly common at certain localities. One of us (WB) has found most of his specimens of *S. stigmatica* in gardens, botanical gardens and especially in or near forests in Tanzania and South Africa.

V. The *pipiens* species-group

We have placed eight species in this species-group: six of them are described as new to science, and three of these are only known in the male sex. The species are characterised by three synapomorphies related to characters of the male genitalia: the cerci in lateral view are longer than high, the dorsal lobe of surstylus is narrow, elongate, and usually with a subbasal and/or submedial bump; the dorso-posterior corner of the ventral surstylar lobe is provided with a shelf or a short process that is dorso-medially directed. In the female, the sterna 2 to 4 are darker and more strongly sclerotised than is usual in *Syritta*.

An evolutionary trend can be observed in a reduction of the spurious vein. In *S. incrassata* new species, *S. cerca* new species, *S. similis* new species, and *S. dentata* new species, the spurious vein is of practically the same strength as the radial and medial veins next to it. We regard this as a plesiomorphous character state. In *S. pipiens* (Linnaeus), *S. fasciata* (Wiedemann), and *S. leona* new species the spurious vein is markedly thinner than these neighbouring veins, and its most basal part is obsolete. In the Indian *Syritta stylata* new species, this evolutionary trend has gone further, as only remnants of the spurious vein are present basally and apically to the knot in the middle of the anterior basal cell. We regard this as the most apomorphous character state.

Along with this trend, there is a further trend to be seen in a gradual reduction of the microtrichial cover of the apical part of the wing (see the descriptions).

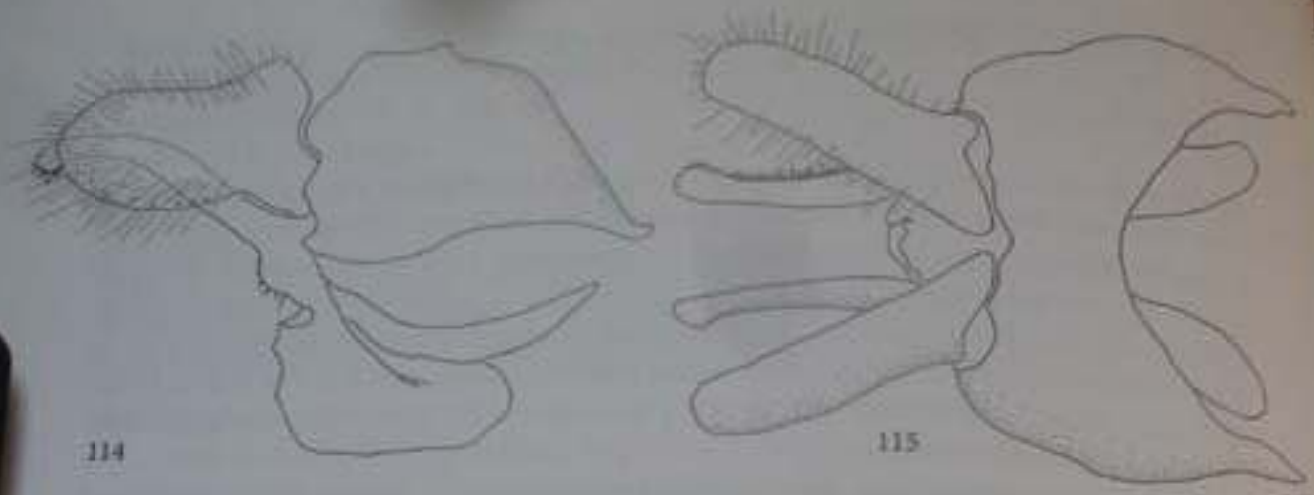
Syritta incrassata new species

Figs 43, 114, 115.

This remarkable species is known from only one male specimen from Central Africa. The relationships of *S. incrassata* new species are unclear, but we have tentatively assigned it to the *pipiens* species-group because of the parallel-sided cerci (in dorsal view), the slender elongate dorsal lobe of the surstylus, the presence of a subbasal hump to the dorsal lobe, and the absence of a posterior projection to the ventral lobe of the surstylus (as in the preceding species). However, the absence of fine pale setae on the posteroventral surface of the hind femur (fig. 43) and the otherwise poor armature of the femur is reminiscent of *S. stigmatica* Loew (fig. 42).

Diagnostic characters.
All veins very coarse; scutum and scutellum coarsely puncturate and with very short whitish pilosity; hind femur (fig. 43) strongly incrassate, with very poor armature; tergum 4 and sternum 4 of characteristic shape (see description below); male genitalia (figs 114, 115) large compared to size of species.

Description – male.
Face concave, yellowish-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.5. Vertical triangle with a ratio between tomentose lower part and



Figures 114, 115. Epandrium with appendages of *Syritta incrassata* new species, holotype, DR Congo, Bibi. – 114: lateral view; 115: dorsal view.

blackish upper part of c. 4.5/1.5, tomentum dark grey. Distance between anterior ocellus and eye-margins shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks indistinct. Basoflagellomere yellow-brown; size c. 4.0 x 2.3; arista c. 5.0.

Tomentum of pleura and lateral scutum to suture greyish, of postpronotum yellowish-grey. Scutum and scutellum deep black, with coarse puncturation; with no strong scutellar setae visible. Mesonotal pilosity very short, whitish.

Veins and spurious vein very coarse, brown-black, but paler brown in basal part. Wing brownish tinged, and stigma only indistinctly darker than wing surface. Entire apical part of wing with a dense covering of microtrichia.

Fore and mid legs yellow-brown, slightly darkened basally. Hind femur strongly incrassate, black, ventrobasal profile line slightly concave.

Ventrobasal section of hind femur (fig. 43) with a very poor armature: only 3 or 4 minute tubercles, none of them subbasally arranged; each of these tubercles with a short, blunt, black setula. Ventroapical section of hind femur with the usual armature.

Hind tibia without modifications except for the usual anteroventral carina. Colour brownish, but paler at base and in an indistinct ring around middle.

Tergum 1 blackish with brownish anterolateral corners. Tergum 2 laterally dirty brownish-yellow with a blackish posterior fascia as wide as c. one-fifth of tergal length at lateral margin, and a narrow blackish median vitta which anteriorly widens to form an indistinct anterior fascia. Tergum 3 has same dirty brownish colour on anterior two-thirds, posteriorly with a blackish fascia. Tergum 4 constricted at three quarters, black on these anterior three-quarters, yellow-brown on posterior quarter. Tomentose, triangular anterolateral areas occur. Sternum 4 very strongly projecting, posterior margin straight; a row of strong pale setae along margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 114): cercus is enormous compared to the size of the species. Dorsal lobe of surstylus long, slender, slightly dilated at apex, and curved in its apical half; at base a hump bearing some short setae. Ventral surstylar lobe forms a shelf dorsoposteriorly. Dorsal view (fig. 115): cerci diverging, with almost parallel sidemargins. Dorsal surstylar lobes also

have nearly parallel sidemargins; their pilosity concentrated on the lateral side. Surstylar apodemes broadly separate. Hood of ejaculatory apodeme much larger than hood of aedeagal apodeme.

Female.
Unknown.

Length: c. 8 mm.

Material examined.
Holotype: ♂. DR Congo, "Musée du Congo, Bibi [plus additional unreadable name] 11.II.1914, leg. Dr. Rouckebe" (MRAC).

Distribution.
S. incrassata is only known from the locus typicus.

Etymology.
The name refers to the very incrassate hind femur.

Syritta cerca new species

Figs 116, 117.

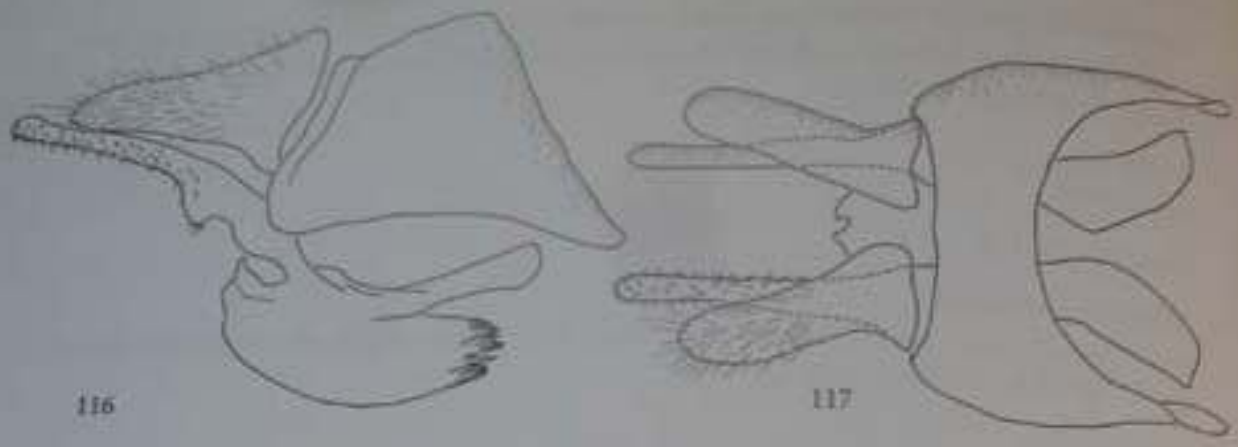
This is another undescribed species from DR Congo, belonging to the enigmatic subgroup of the *pipiens* species-group containing four species with relatively plesiomorphous character states (see the introduction).

Diagnostic characters.
In addition to the characters of the genitalia, *S. cerca* new species is best recognized by characters of the 4th abdominal segment: tergum 4 is tomentose along its entire lateral margin, and sternum 4 has a V-shaped incision with an additional semicircular incurvation of the median third. The tongue-shaped posterior part of tergum 1 is yellow laterally, as is also seen in *S. leona* new species.

Description – male.
Face concave, tomentum golden yellow. Oral margin less projecting than frontal prominence. Eye contiguity c. 2.0. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 4.0/1.0; tomentum golden-yellow. Distance between anterior ocellus and eye-margin shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere yellow; size c. 2.5 x 1.8; arista c. 4.0.

Tomentum of lower parts of pleura grey, of upper parts of pleura, postpronotum and lateral scutum to suture golden grey-yellow. Scutum and scutellum black with short pale pilosity; scutellum with a very minute (c. 30 µm) pair of setae. Mesonotal pile golden-yellow.

Veins and spurious vein brown-black, well marked, spurious vein as strong as neighbouring veins. Stigma brownish. Wing surface with a brownish tinge. Part of wing beyond cross-vein R-M with a uniform covering of small, but distinct microtrichia.



116 117

Figures 116, 117. Epandrium with appendages of *Syritta cerca* new species, holotype, DR Congo, Kasongo. – 116: lateral view; 117: dorsal view.

Fore and mid legs entirely pale yellow. Hind femur brown-black in holotype, in paratypes dark brown dorsally and in apical third, whereas the remaining parts are paler brown. Incrassation moderate, and ventral profile line straight.

Ventrobasal section of hind femur with 4 to 6 small tubercles, each with a black setula of moderate size; also some thin pale setae posteroventrally. Ventroapical section of hind femur with the usual armature, including 4 black posteroventral setae before apex.

Hind tibia unmodified except for the usual anteroventral carina. Colour brownish, yellowish at base and in a ring near middle.

Tergum 1 yellowish laterally, also on a posterior tongue-shaped area; on middle with a squarish dark brownish area. Tergum 2 yellow with a brown-black posterior fascia and similarly coloured median vitta of c. one-fourth tergal width; anteriorly the vitta widens and forms an anterior fascia. Tergum 3 with brown-black posterior fascia and a median vitta which does not reach anterior margin. Tergum 4 as wide as tergum 3, shining black, posteriorly with a rather broad yellow border. Anterolateral areas of grey-yellow tomentum that continue as a narrow border along sidemargin to posterior corner. Sternum 4 short, black with yellow-brown integument posteriorly, first with V-shaped incision but median third with an extra semicircular incurvation; setae pale and very weak.

Genitalia. Lateral view of epandrium and its appendages (fig. 116): cercus nearly twice as long as high at base, with "root"; in pinned specimens appearing white-yellow. Dorsal lobe of surstylus very long and slender, with a ventral hump which is neither submedial (as in *S. pipiens*) nor subbasal (as in *S. fasciata*) but somewhat intermediate. It is provided with short weak setae. The ventral surstylar lobe has a dorso-medially directed hook posteriorly. Dorsal view (fig. 117): cerci and dorsal surstylar lobes nearly parallel-sided, the latter seemingly with spread setae on entire surface. Surstylar apodemes separate; with a very anterior position on the surstylus compared to other species, for example *S. similis* (fig. 118). Hood of ejaculatory apodeme much larger than hood of aedeagal apodeme.

Female.
Unknown.

Length: 6-7 mm.

Material examined.
Holotype: ♂. DR Congo, Kasongo, VIII.1959, leg. P. L. G. Benoit, (MRAC).

Paratypes: 2 ♂♂. DR Congo, Katanga, Elisabethville [= Lubumbashi], 8.II.1929, leg. Dr. M. Bequaert (1 ♂: MRAC; 1 ♂: ZMUC).

Distribution.
S. cerca is only known from DR Congo.

Etymology.
The name refers to the enlarged cerci.

Syritta similis new species

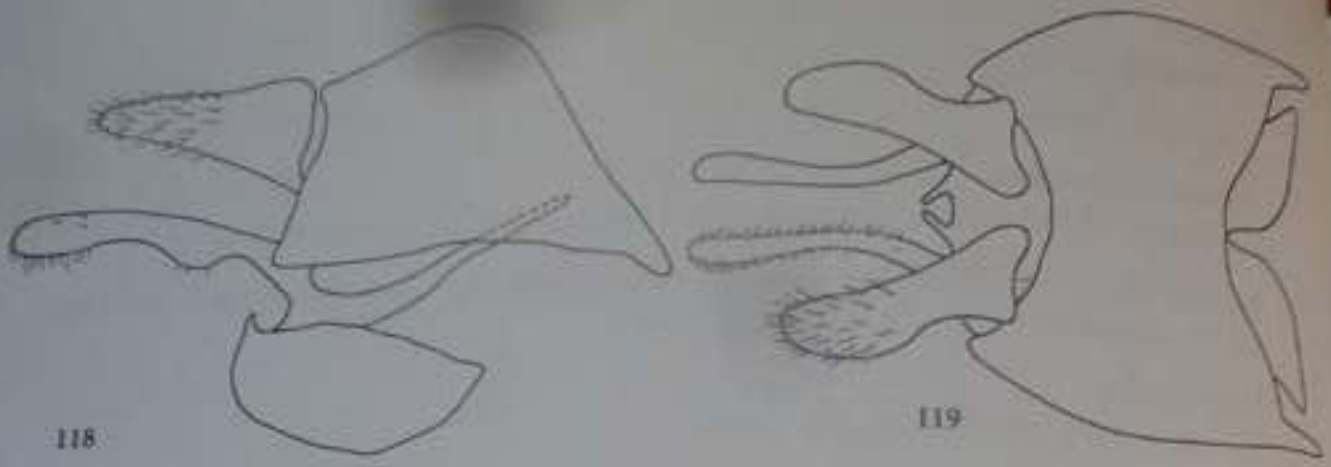
Figs 118, 119.

It was surprising to find an undescribed *Syritta* in Central Africa with male genitalia very similar to those of *S. pipiens* (Linnaeus). At first sight this new species would be assumed to be a member of the *S. bulbus* species-group because of the narrow-fronted head, the extensive yellow-grey tomentum on vertical triangle, the orange-yellow basoflagellomere and the golden yellow mesonotal pilosity.

We know that it is a bold suggestion, but *Syritta similis* could be proposed as the sister-species to the subgroup containing *S. leona* new species, *S. pipiens* (Linnaeus), *S. fasciata* (Wiedemann), and *S. stylata* new species. We have no doubt that the *S. pipiens* species-group has its centre of evolution in Africa, as six of the eight included species occur on that continent. The distribution area of the common ancestor to *S. similis* and the 4 species listed above was split into several distribution areas during the formation of the Sahara desert, since when speciation has taken place.

Diagnostic characters.
S. similis new species is very similar to *S. dentata* new species in external characters. The genitalia (figs 118, 119) are clearly different; tergum 4 is also markedly wider in *S. similis* than in *S. dentata*, posteriorly reaching a width of 1.5 times width of tergum 3. The lateral tomentum of tergum 4 reaches halfway to posterior corner in both *S. similis* and *S. dentata*, which separates them from *S. cerca* in which the tomentum reaches the posterior corner.

Description – male.
Face markedly concave, with a thick yellowish tomentum that has a silver-white tone. Oral margin less projecting than frontal prominence. Eye contiguity c. 2.5. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.5/1.0; tomentum yellow-grey. Distance between anterior ocellus and eye-margin shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital margin with tomentose marks. Basoflagellomere orange-yellow; size c. 2.6 x 1.7; arista c. 3.5.



118 119

Figures 118, 119. Epandrium with appendages of *Syritta similis* new species, holotype, DR Congo, Parc National Albert. – 118: lateral view; 119: dorsal view.

Katepisternum and anterior anepisternum with pure light ash-grey tomentum; remaining part of anepisternum, postpronotum and a lateral scutal vitta to suture with a yellow-grey tomentum. Scutellum black, with thin pale marginal setae; one pair of stronger setae, c. 40 µm long. Mesonotal pile golden-yellow.

Veins and spurious vein dark brownish and well-marked. Stigma dark brownish. Part of wing apical to cross-vein R-M with a thin, but uniformly distributed cover of punctiform microtrichia.

Fore and mid legs yellowish. Hind femur moderately incrassate, ventrobasal profile line straight. Colour dark brownish, sometimes paler yellow-brown at base, on ventrobasal surface, and on a streak at middle that does not reach dorsal surface.

Ventrobasal section of hind femur with 4 to 8 small black setulae which are rather sharp-tipped, arranged on very low tubercles, and are distributed along most of the section; thin pale setae are present posteroventrally. Ventroapical section with the usual armature, which includes 4 or 5 black posteroventral setae and up to 7 anteroventral setae.

Hind tibia with the usual anteroventral carina; otherwise unmodified. Its colour brownish, paler at base and in a ring around middle.

Abdomen slender. Tergum 1 with large brown-black rectangular area; anterolateral areas dull grey-brown. Tergum 2 yellowish with a blackish posterior fascia, which laterally occupies one-fifth of tergal length, continues into a median vitta that is c. 1/7 of tergal width at its narrowest, and widens markedly towards anterior margin. Tergum 3 similar to tergum 2, but median vitta does not reach anterior margin. Tergum 4 with diverging sidemargins so that its width posteriorly is 1.5 times width of tergum 3. Colour of tergum 4 polished black, with a pale yellow posterior strip of c. 1/10 tergal length. Also small areas of grey tomentum anterolaterally; along sidemargin the tomentum reaches halfway to posterior corner. Sternum 4 slightly protruding in lateral view, with a simple V-shaped incision into posterior margin.

Genitalia: Lateral view of epandrium and its appendages (fig. 118): cercus about 2 times as long a high, rather pointed, and entirely yellowish (see *S. pipiens* (L.)). Dorsal lobe of surstylus very similar to that of *S. pipiens*, but with smaller dimensions. Ventral submedian lobe more sharp, and basal bump absent; the pilosity also poorer. Ventral lobe of surstylus also similar to that of *S. pipiens*, and with same thorn-like

process posteriorly. Dorsal view (fig. 119): cerci of nearly equal width, lateral margin markedly concave, median margin less concave. Dorsal lobe of surstylus of equal width, narrow, slightly curved, and with pilosity on entire surface. Surstylar apodemes separate. Ejaculatory apodeme with a large hood.

Female.
Unknown.

Length: 6-7 mm.

Material examined.
Holotype: ♂. DR Congo ["Congo belge"], P. N. Albert, Moy ya Moto, 950 m, 6-9.XI.1934, leg. G. F. de Witte: 729 (MRAC).

Paratypes:
2 ♂♂. Same data as holotype (1 ♂: MRAC & 1 ♂: ZMUC);
1 ♂. DR Congo, Congo da Lemba, V.1912, leg. R. Mayné (MRAC).
1 ♂. Cameroon, 85 km WSW Yaounde, Eseka: 3 km W' Djogob, 14.III.1984, leg. Barkemeyer (Bkm).

Distribution.
This species is only known from DR Congo and Cameroon.

Etymology.
The name of this species refers to the similarity with *S. pipiens* (L).

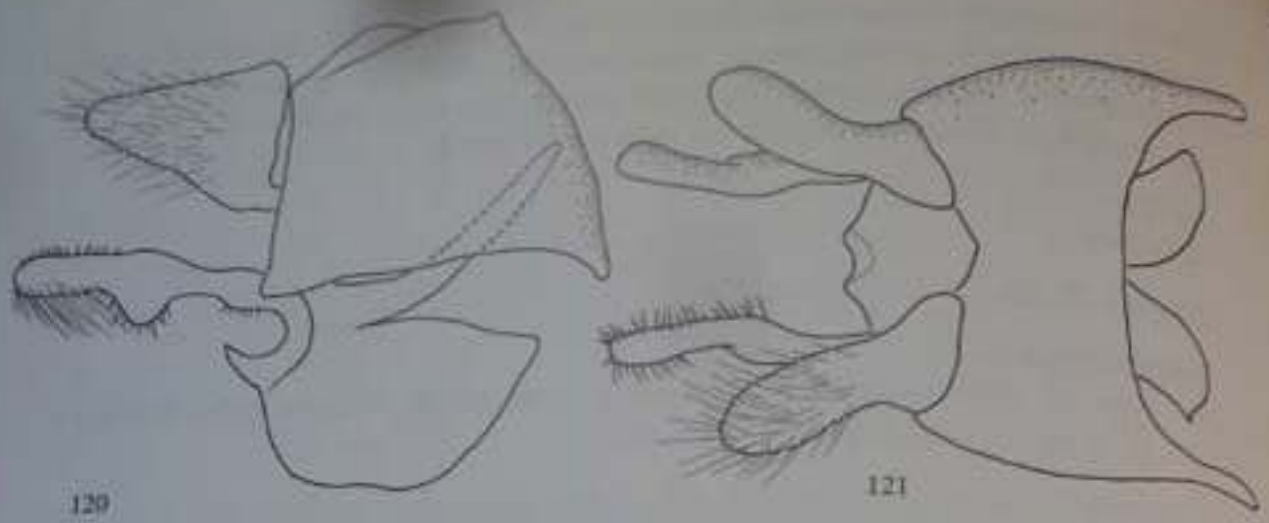
Syritta dentata new species

Figs 120, 121.

S. dentata new species is a derivative of the *S. pipiens* species-group and seems to be restricted in distribution to some indigenous forests of the KwaZulu-Natal province of South Africa.

Diagnostic characters.
S. dentata new species is very similar to *S. similis* new species in all external characters (see the descriptions), but the male genitalia are clearly different (see the figures). *S. dentata* is most likely to be confused with *S. fasciata* (Wiedemann), which occurs in the same area. In both sexes there is a clear difference in the strength of the spurious vein, and in the female sex also in the different relative dimensions of the tomentose lower and blackish upper parts of the frons (see the descriptions).

Description – male.
Face slightly concave, golden-grey tomentose. Oral margin less projecting than frontal prominence. Eye contiguity c. 2.5. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 4.0/1.0; tomentum yellow-grey. Distance between anterior ocellus and eye-margin shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere orange-yellow; size c. 2.5 x 2.0; arista 4.0.



120 121

Figures 120, 121. Epandrium with appendages of *Syritta dentata* new species, holotype, South Africa, Kosi Bay Nature Reserve. – 120: lateral view; 121: dorsal view.

Tomentum of katepisternum and anepimeron pure grey, of anepisternum, postpronotum and lateral scutum to suture yellowish grey. Scutum and scutellum deep black, scutellum with a pair of minute black setae; their length c. 50 µm. Mesonotal pilosity very short, pale.

Veins and spurious vein blackish, well-marked. Stigma brown-black. Wing surface with a grey-brown tinge. Fine microtrichia present in apical parts of all R-cells, in cell DM, and along apicoposterior wing margin. More basally in these cells the provision with microtrichia is more sparse.

Fore and mid legs uniformly reddish-yellow. Hind femur moderately incrassate and brown-black dorsally, in apical part and in a broad band in basal third; remaining parts reddish-brown. Ventrobasal profile line straight.

Ventrobasal section of hind femur with 5 to 7 small tubercles, each with a rather sharp-tipped, apically-directed, setula; also 3 or 4 thin whitish setae posteroventrally. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia unmodified except for the usual anteroventral carina. Colour dark brown with yellow base and a yellow-brown ring around middle.

Tergum 1 coal-black from sidemargin to sidemargin of posterior tongue-shaped section; anterolateral areas yellow with thin white-grey tomentum. Tergum 2 yellow with coal-black posterior fascia and a similarly coloured median vitta of c. one-fifth of tergal width; anteriorly the vitta widens and forms a narrow anterior fascia. Tergum 3 coloured as 2, but the vitta does not reach anterior margin. Tergum 4 slightly wider than tergum 3, coal-black with a narrow yellow-brown posterior rim. Anterolaterally with small areas of grey tomentum that continue along sidemargin to about middle of segment. Sternum 4 with a rather deep V-shaped incision; setae along posterior margin weak and pale.

Genitalia. Lateral view of epandrium and its appendages (fig. 120): cercus c. 1.3 times as long as high, triangular, with a narrow "root". Dorsal lobe of surstylus slightly longer than cercus, on ventral side with a subbasal incurvation followed by a roundish lobe. A conspicuous long ventral pile in apical third. Ventral surstylar

lobe with sharp postero-medially directed process on posterior margin. Dorsal view (fig. 121): cerci appearing wide apart, and with concave lateral margins, apices being broadly rounded. Dorsal surstylar lobes almost equally wide and irregularly shaped. Surstylar apodemes separate. Hood of ejaculatory apodeme much larger than hood of aedeagal apodeme.

Female.
Face as in male. Frons with a ratio between lower tomentose part to upper shining black part of c. 4.0/5.0; the black part with a pair of relatively small tomentose spots. Eye-margins separated from anterior ocellus by width of ocellus. Basoflagellomere larger than in male and darkened along dorsal and apical margins. Thorax, wings, and legs as described for male. Tergum 1, as in male, totally black. Tergum 2 with a black median vitta occupying more than one third of tergal width. Tergum 3 nearly totally black, only with relatively small tomentose anterolateral areas. Tergum 4 as in male. Sterna 2 to 4 black and well sclerotized.

Length: 6-8 mm.

Material examined.
Holotype: ♂. South Africa, KwaZulu-Natal, Kosi Bay Nature Reserve, forest and open woodland areas, 30.XI.-2.XII.1982, leg. Londt, Barraclough & Stuckenberg (NMSA).

Paratypes:
1 ♀. South Africa, KwaZulu-Natal, Kosi Bay Nature Reserve, forest & open woodland areas, 30.XI.-2.XII.1982, leg. Londt, Barraclough & Stuckenberg (NMSA);
2 ♂♂, 3 ♀♀. South Africa, KwaZulu-Natal, Makaheli Forest 2632 DD, c. 5 km SE Mangusi Forest, 30.XI.-2.XII.1982, leg. Londt, Barraclough & Stuckenberg (1 ♂, 3 ♀♀: NMSA, 1 ♂: ZMUC);
1 ♂. South Africa, KwaZulu-Natal, Eshowe: Dhlinza Forest, 5.-6.IV.1960, leg. B. & P. Stuckenberg (NMSA);
1 ♂. South Africa, KwaZulu-Natal, Richards Bay, 3.III.2000, leg. Barkemeyer (Bkm).

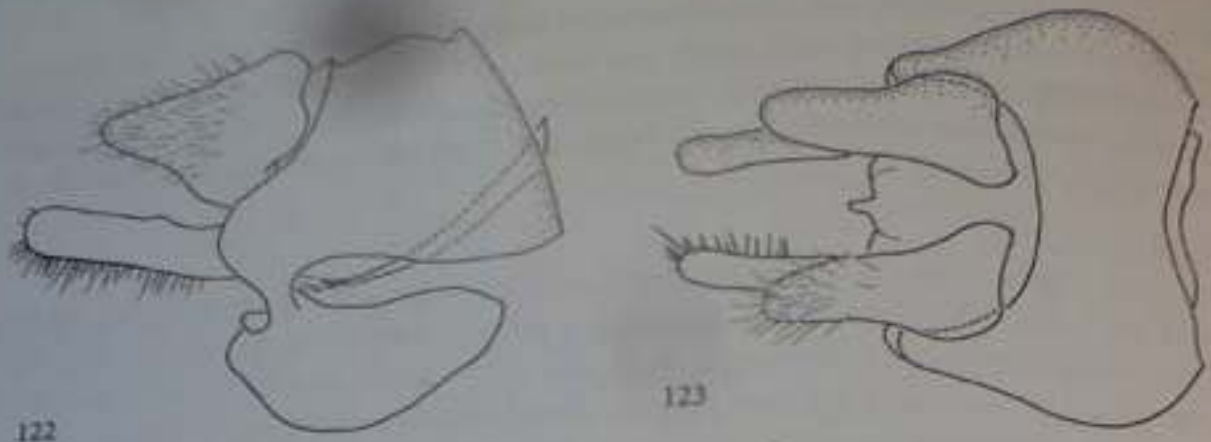
Distribution.
S. dentata was only found in forests in northeastern KwaZulu-Natal, i. e. the northeastern province of South Africa.

Etymology.
The name refers to the ventral dent on dorsal surstylar lobe.

Syritta leona new species

Figs 4, 122, 123.

Whilst examining a few *Syritta* collected in Sierra Leone by an entomological expedition from the Zoological Museum, Lund University, Sweden, one of us (LL) noticed a male and a female specimen with a remarkable curvature of the apical marginal vein (= vein M1) (see fig. 4). Later, when more specimens with this character



122 123

Figures 122, 123. Epandrium with appendages of *Syritta leona* new species, holotype, DR Congo, Congo da Lemba. – 122: lateral view; 123: dorsal view.

were found, the male genitalia were examined and they disclosed the existence of a distinct taxon which is rarely collected but seems to be widely distributed in western, central, and southern Africa; over 50 specimens are now known. We are describing this taxon as *S. leona* new species.

Diagnostic characters.
The four most reliable characters for both sexes of *S. leona* new species are found in the wing: (a) the spurious vein is thinner than the adjoining radial and medial veins, (b) the apical marginal vein (M1) is bow-shaped (fig. 4), (c) the stigma is pale, and (d) there is poor provision of microtrichia in the apical half of the wing. The male genitalia (figs 122, 123) are very distinctive and cannot be confused with those of other species of the species-group. The characters (b) and (c) distinguish *S. leona* from *S. fasciata* (Wiedemann) with which it is most often confused. In the female of these two species there is also a difference in the relative distribution of the tomentose and non-tomentose parts of the frons (see the descriptions).

Description – male.
Face slightly concave, yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 2.4. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.0/1.2; tomentum yellow-grey. Distance between anterior ocellus and eye-margin shorter than width of ocellus. A pair of tomentose dots on ocellar plate. Largest facets c. 35 µm, i. e. clearly smaller than in *Syritta fasciata* (Wiedemann). Upper occiput with distinct tomentose marks. Basoflagellomere yellow; size c. 2.4 x 1.6; arista c. 3.5.

Tomentum of katepisternum, anepimeron, and anterior part of anepisternum pure grey, yellow-grey on dorsoposterior part of anepisternum and on postpronotum and lateral scutum to suture. Scutellum black; pair of marginal scutellar setae c. 50 µm long. Mesonotal pile brownish.

Veins brownish, thin. Spurious vein very thin, thinner than neighbouring veins and obsolete in basal part. Stigma indistinct, yellowish. Apical marginal vein (fig. 4) forms a bow; i. e. hardly concave on mid-section as is usual in the genus. Microtrichia of restricted distribution: only extreme apices of cell R2+3 and R4+5, and area between marginal veins and wing-margin with fine microtrichia.

Fore and mid legs yellow. Hind femur moderately thickened, usually uniformly brown-black, but may be paler at extreme base; its ventrobasal profile line straight. Ventrobasal section of hind femur with an irregularly arranged row of 4 to 9 moderately sharp, and rather long, black setulae, which are arranged on small tubercles. Also 4 or 5 thin whitish setae more posteriorly, these about as long as hind tibial width. Ventroapical section with the usual armature, including 4 black posteroventral setae before apex.

Hind tibia without modifications other than a sharp anteroventral carina. Colour dark brown, with yellow base and an indistinctly paler ring around middle.

Tergum 1 blackish, anterolateral corners yellow and also lateral areas of the tongue-shaped posterior part yellow. Tergum 2 yellow, with a blackish posterior fascia which continues anteriorly into a blackish vitta of c. one-fifth of tergal width. Tergum 3 yellow, with a blackish posterior fascia and a median vitta which is narrower than that of tergum 2 and does not reach anterior margin. Tergum 4 black, shining, with small anterolateral tomentose areas and a yellow-brown posterior margin. Sternum 4 with a moderately deep V-shaped incurvation.

Genitalia. Lateral view of epandrium and its appendages (fig. 122): cercus subtriangular, with broad "root". Dorsal lobe of surstylus slightly longer than cercus, almost equally wide throughout but with a low bump near middle of dorsal surface; pile fine, ventrally directed, longest setae about as long as width of lobe. Ventral surstylar lobe only slightly projecting posteriorly. Dorsal view (fig. 123): cerci narrowly rounded apically, median margins nearly straight, lateral margins slightly concave. Apical section of dorsal gonostylar lobes parallel-sided. Surstylar apodemes fused for a long distance, only narrowly visible. Hood of ejaculatory apodeme much larger than hood of aedeagal apodeme.

Female.

This sex is not easily recognised. The best distinguishing characters are found in the wing: the thin but distinct spurious vein, the bow-shaped apical marginal vein with at most a very low concavity in mid-section, the pale stigma, and the poor provision of microtrichia in the apical part of the wing. Frons with a ratio between tomentose lower part and shining black upper part of c. 4.0/4.0. Upper black part of frons with a pair of tomentose areas which are closer to anterior ocellus than to lower edge of black part. Distance from anterior ocellus to eye-margin slightly shorter than width of ocellus. Other characters as described for male.

Length 5-7 mm.

Material examined.

Holotype: ♂. DR Congo, Congo da Lemba, 1912-13, leg. R. Magné (MRAC).

Paratypes:

1 ♂. Gambia, 1-2 km W Georgetown, River Gambia, northern shore ["Nordufer"], 27.II.1985, leg. Barkemeyer (Bkm);

1 ♂. Guinea, [no locality], [date:] ?, leg.: ? (ZMHB, H. Loew coll., label: "*fasciata* Wd.?, nov sp.?");

1 ♂, 1 ♀. Sierra Leone, Freetown, roadside, 23.XI.1993, leg. Cederholm & Danielsson (♂: MZLU, ♀: ZMUC);

1 ♂. Ghana, 28 km N Accra: Aburi, Bot. Garden, 30.IX.1998, leg. Barkemeyer (Bkm);
1 ♂. Ghana, ca. 2-3 km N Hohoe, forest ["Wald"] / Farmland, 7.X.1998, leg. Barkemeyer (Bkm);
1 ♂. Ghana, 12 km SE Hohoe: Avegame, in village ["Dorf"], 3.X.1998, leg. Barkemeyer (Bkm);
1 ♂. Togo, R. de Plateaux, Pte. Baumann, 986 m, 22.XI.1980, leg. Schulten (ZMAN);
3 ♂♂. Nigeria, Western State, Ile-Ife, 9.XII.1968, leg. Medler (USNM);
1 ♀. Nigeria, W-state, Ile-Ife, 3.XII.1969, leg. Medler (CNC);
1 ♀. Nigeria, W-state, Ile-Ife, 20.VII.1970, leg. Medler (CNC);
2 ♂♂. Cameroon, Limbe (Victoria), rivermouth ["Mündung"] Dockyard Creek - Mitondo (SE), 20.III.1984, leg. Barkemeyer (Bkm);
1 ♂. Cameroon, S., Kribi, 21.VII.1974, leg. Lucas (ZMAN);
12 ♂♂, 11 ♀♀. Congo da Lemba, 1912-13, leg. R. Magné (MRAC); same data as holotype;
1 ♂. DR Congo, Rutshuru, 176, 28.V.[19]36, leg. L. Lippens (MRAC);
1 ♂. DR Congo ["Congo belge"], Terr. Rutshuru, VII.1937, leg. Mission Prophylactique (MRAC);
2 ♂♂. DR Congo ["Congo belge"], Terr. Rutshuru, 13.XII.1937, leg. Ghesquiere (IRSNB);
1 ♂. DR Congo ["Belg. Congo"], Lubumbashi ["Elisabethville"], 11.-17.IX.1931, leg. J. Ogilvie (BMNH);
1 ♂, 1 ♀. DR Congo ["Belg. Congo"], Lubumbashi ["Elisabethville"], 11.-17.IX.1931, leg. Ogilvie & Cockerell (CNC);
1 ♂. DR Congo ["Belg. Congo"], Uvara, VIII.1931, leg. J. Ogilvie (BMNH);
1 ♂. DR Congo, I.[ac] Kivu, Ruabungu, 17.X.35, leg. H. Damas (MRAC);
1 ♂. Uganda, Entebbe, in forest, 20.XI.1972, leg. Falke (CNC);
1 ♀. Uganda, Mt. Elgon, 2135 m, 4.-8.XII.1972, leg. Falke (CNC);
1 ♀. Tanzania ["D.O. Afrika"], Nyembe-Bulungwa, 1914, leg. Hammerstein S. (SMF);
1 ♂. Urundi [= Burundi], Kilaba, 1850 m, 12.VI.1949, leg. François (ZMUC);
1 ♂. Angola, Salazar, sweeping flowering grasses, 11.III.1972, leg. Southern Afr. Exp. (BMNH);
2 ♂♂. Zambia, Abercorn, 4.IV.1944, leg. Brédo (IRSNB);
1 ♂. South Africa, [KwaZulu-] Natal, Durban, Carrington Heights, 24.V.1991, leg. Lucas (ZMUC);
1 ♂. South Africa, Transvaal, Lomati River Headwaters, Barrington, montane meadows, 1175 m, 25.II.1971, leg. Stuckenberg (NMSA).

Distribution.

This species is widely distributed within the Afrotropical region, ranging from The Gambia in the northwest to Durban in the KwaZulu-Natal Province of South Africa in the southeast of the continent. However, we have only a few records from East Africa.

Habitat.

This species is found in various habitats such as forests, botanical gardens, farmland, roadsides, and villages.

Etymology.
The name refers to Sierra Leone, the origin of the first specimen to be recognised.

Syritta pipiens (Linnaeus, 1758)

Fig 1, 124, 125.

Musca pipiens Linnaeus, 1758: 594.
Xylota proxima Say, 1824: pl. 8.
Syritta obscuripes Strobl, 1899: 146.
Syritta albicincta Santos Abreu, 1924: 125.
Syritta vicina Szilády, 1940: 67.
Syritta flavicans Szilády, 1940: 68.
Spheginoides tenofemora Dzhafarova, 1974: 40.

Syritta pipiens (Linnaeus) is one of the most common and widely distributed syrphids in the Palaearctic region. We will not go into more detail with this species than with the other species. However, a list of some important characters and an account to estimate the southern limits of its distribution will be given.

S. pipiens belongs in a subgroup of the *S. pipiens* species-group together with *S. leona* new species, *S. fasciata* (Wiedemann), and *S. stylata* new species. This subgroup is characterised by a spurious vein which is thinner than the neighbouring radial and medial veins, in *S. stylata* even almost obsolete, and a wing apex almost free of microtrichia.

The diagnostic characters of *S. pipiens* are as follows:

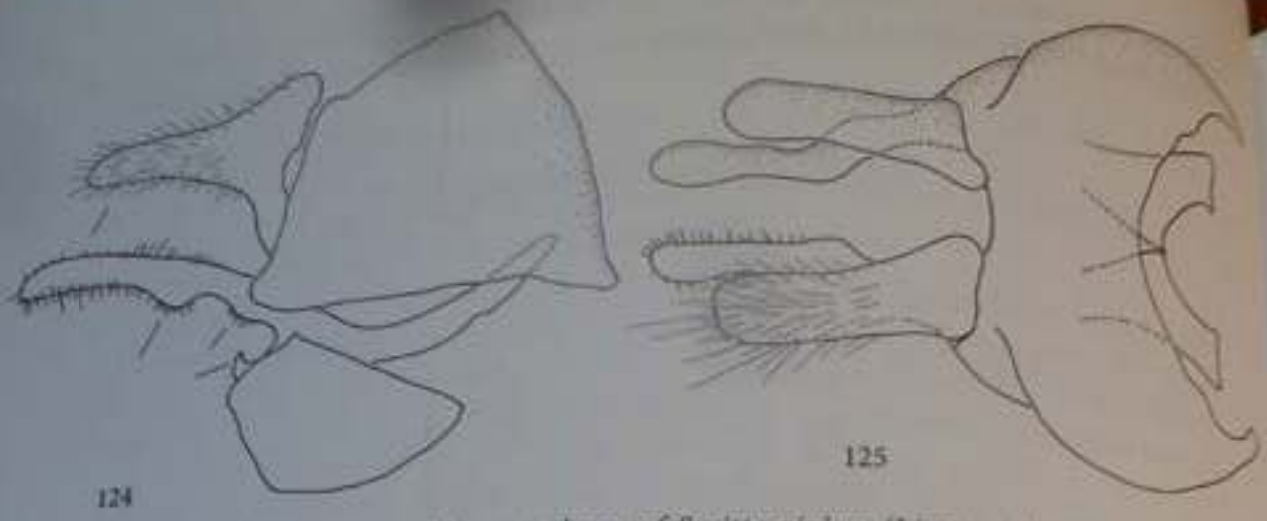
(a) Oral margin projects beyond frontal prominence (fig. 1).
S. pipiens is the only species in the species-group possessing this character, which is difficult to appreciate correctly without an ocular grid mounted in the microscope. Valid for both sexes.

(b) Fore and mid femora with dark brown streak on dorsal surface.
We have found this character a safe and easy one to use, and it is valid for the great majority of specimens. The streaks may vary in extent from just a narrow, short one to a streak almost covering entire dorsal surface. Specimens occur without streaks, either on mid femora alone, or on both fore and mid femora, and the same specimens do often also have brownish hind femora in which only the apex is darker brown-black. We have seen such specimens from Rhodes, Cyprus, Israel, and Pakistan. The character is valid for both sexes.

(c) Fore and mid tibiae darkened in apical part.
The occurrence of this character follows the occurrence of character (b).

(d) Dorsal surstylar lobe with submedian and subbasal bumps; both are setose.

(e) Dorso-posterior process of ventral surstylar lobe sharp-tipped.



124 125

Figures 124, 125. Epandrium with appendages of *Syritta pipiens* (Linnaeus), Sweden. – 124: lateral view, 125: dorsal view.

Redescription – male.

The following diagnostic description is based on Swedish specimens, following the suggestion by Thompson (Thompson et al. 1982).

Face concave, with a grey to grey-yellow tomentum. Oral margin projecting beyond frontal prominence. Eye contiguity c. 3.0. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 4.0-5.0/1.0; tomentum brownish grey. Distance between anterior ocellus and eye-margin longer than width of ocellus. Largest facets c. 40 µm. Upper occiput with tomentose marks, but tomentum rather dark, and marks consequently indistinct. Basoflagellomere brownish, more or less blackened along dorsal and apical margins; size c. 3.0 x 2.0 (as in many species); arista c. 4.0.

Tomentum of pleura, postpronotum and lateral scutum to suture greyish to yellowish-grey. Rest of scutum and scutellum black, with pale pilosity; scutellum with a pair of black marginal setae, c. 75 µm long.

Veins and spurious vein well-marked, brown, though spurious vein is clearly narrower than neighbouring veins. Stigma pale brown. Wing surface almost hyaline. Part of wing distal to cross-vein R-M with microtrichia that are punctiform and mainly found along posterior wing margin and in apical parts of all R-cells and cell DM, whereas the basal parts of the same cells are practically free of microtrichia.

Fore and mid femora reddish-brown, each usually with a brown-black streak of various extension on dorsal surface but leaving base and apex free. Fore and mid tibiae yellowish in basal third, apical two-thirds or so darker: grey-brown. Hind femur incrassate, with a straight ventrobasal profile line; colour black, usually red-brown at base and on a ventral band after middle.

Ventrobasal section of hind femur with a weak armature composed of 5 to 7 small tubercles, irregularly arranged; each tubercle with a short black setula. More posteroventrally 4 to 6 thin pale setae. Ventroapical section of hind femur with the usual armature, including 4 to 6 black posteroventral setae before apex.

Hind tibia with the usual anteroventral carina; the carina shows a very low lamina in apical half. Colour brown-black, with a yellowish base and yellow-brown ring after middle, but variation occurs.

Tergum 1 black, anterolateral corners grey-brown tomentose. Tergum 2 yellow-brown with a very dominant black design consisting of a posterior fascia, a median vitta of c. one-fourth tergal width, and also an anterior fascia of considerable dimensions. Tergum 3 similarly coloured, but with no anterior fascia. Tergum 4 as wide as tergum 3, black with yellow-brown posterior margin; anterolateral areas of tomentum spread along sidemargin for about half tergal length.

Genitalia. Lateral view of epandrium and its appendages (fig. 124): cercus blackish basally, yellowish apically, with an elongate and rather narrow apical part; with a strong "root". Dorsal surstylar lobe slightly curved, almost equally wide throughout, and with a drooping lobe before middle; also with a very low subbasal bump; pilosity rather spread and short. Ventral surstylar lobe only slightly projecting posteriorly and with a thorn-like process which is directed postero-medially. Dorsal view (fig. 125): cerci nearly equally wide, broadly rounded apically. Dorsal surstylar lobe slightly dilated apically. Surstylar apodemes fused for a short distance anteriorly. Hood of ejaculatory apodeme much larger than hood of aedeagal apodeme.

Female.

Face as in male with a protrudent oral margin. The frons can be described in two ways depending on the extension of the tomentum on upper frons: either as having a ratio between tomentose lower part and blackish upper part of c. 6.0/3.0 combined with a pair of tomentose areas on blackish upper part, or with a ratio of c. 8.0/1.0 when the tomentose areas connect to the tomentose area on lower frons. Distance from anterior ocellus to eye-margins up to 1.5 times width of ocellus. Basoflagellomere larger and darker than in male; sometimes almost blackish. Thorax, wings, and legs as in male. The terga show great variation in the colour pattern. Tergum 2 usually extensively blackish with broad posterior and anterior fasciae and a wide median vitta; midlaterally with an area that may have a more or less distinct brownish coloration, or may be entirely covered by greyish tomentum. Terga 3 and 4 blackish with equally shaped anterolateral areas, which on tergum 3 may show some brownish coloration, and on both terga are greyish tomentose; tergum 4 also with a posterior strip of brown integument.

Length: 6-9 mm.

Distribution.

Thousands of specimens of *S. pipiens* exist in European and non-European collections. It is not possible for us to check all these specimens in order to present a detailed account on the Palaearctic distribution, but will cite Peck (1988: 215): "Europe from Scandinavia to P [Portugal], E [Spain], I [Italy], Yu [Yugoslavia], GR [Greece]; all parts of USSR; Asia: Mongolia, China, Turkey, Iran, Afghanistan; North Africa: Morocco, Algeria, Madeira, Canary Is., Nearctic and Oriental Regions". Shiraki (1968) did not record *Syritta pipiens* from Japan, but there are recent records from Mt. Asihi-dako on Hokkaido (Kimura & Ohishi 1996), from the Osaka Prefecture on Honshu (Katsura 1996), and also from Mt. Tara in the Nakasaki Prefecture on Kyushu (Ikesaki 1999). These records deal only with a few specimens and are mainly from mountainous localities. It is probably a rather recent introduction into Japan.

As to the southern and eastern limits of distribution: to the above information we

can add Tunesia, but there are no records from Libya and Egypt where it is clearly replaced by *S. fasciata* (Wiedemann). The occurrence in Israel can be confirmed by examined specimens from Revivim in the Negev, Tel Aviv, and Beersheba (here sympatric with *S. fasciata*). There are seemingly safe records from Jammu and Kashmir in the western Himalaya (Datta & Chakraborti 1983), and in the ZMUC there is material from the Kashmir Valley, Tangmarg and Uttar Pradesh, Mussoorie (here also sympatric with *S. fasciata*). There is a series from the Quetta area in Pakistani Beluchistan (AMNH). According to the genitalia these specimens are *S. pipiens*, but using other characters they can easily be misidentified as *S. fasciata*.

Stone et al. (1965) gives the Nearctic distribution as "B.C. [British Columbia] to Nfld. [New Foundland], s. to Calif. [California] and Fla. [Florida]". This is a very wide range. Thompson (in litt.) finds it likeky that *S. pipiens* was either introduced with European colonisation or came with the "native" Americans over the Bering land-bridge; he personally favours the former possibility. This means a colonisation of a whole continent within c. 500 years.

Biology.

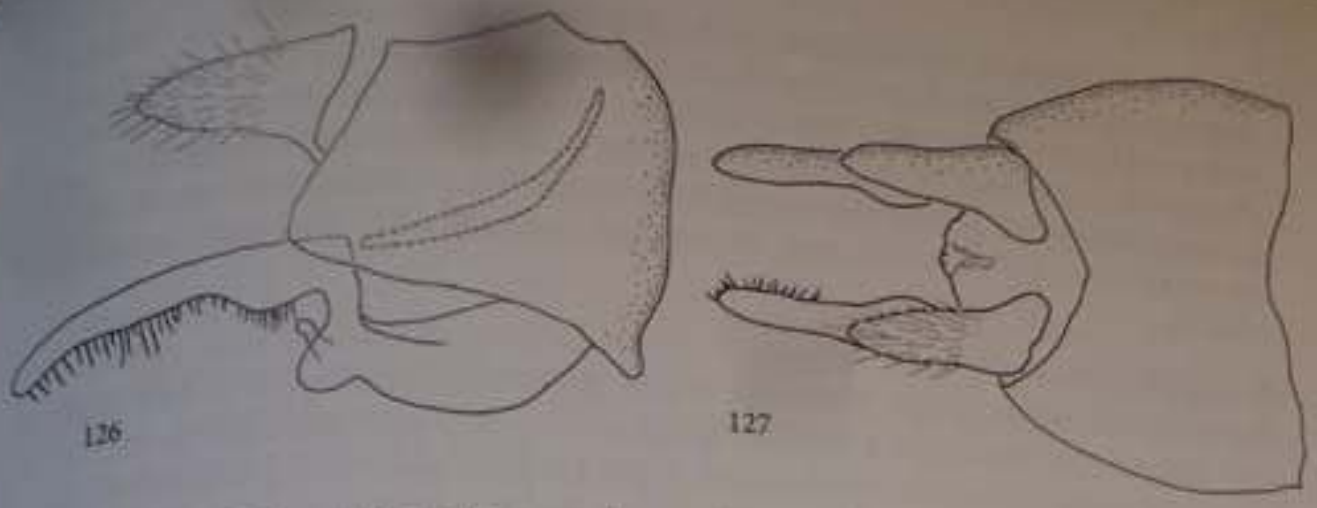
In West and Central Europe, *S. pipiens* is probably a bivoltine species with overwintering larvae; pupation follows in the spring (Krüger 1926; Hartley 1961). Gatter & Schmid (1990) have described this species as a seasonal dismigrant with little inclination for migration ("saisonaler Dismigrant mit geringer Wanderneigung"). The adult can be found in open and woodland habitats where it feeds on the blossoms of various plant species (e.g. De Buck 1990); the visual control of flight behaviour in the adult is described by Collett & Land (1975). In some parts of Europe *S. pipiens* is reported to be synanthropic (Fabritius 1981; Barkemeyer 1997).

The filter-feeding larva (see Dixon 1960) is coprophagus or saprophagous and lives in e.g. cow, horse or chicken manure or in various decaying plant materials such as decaying ash gourd, *Fucus*, grass clippings, *Narcissus* bulbs, potatoes, rice, sugar beets, tulip bulbs, and heaps of vegetable refuse. The larval habitats are located in natural, agricultural and urban environments. Sometimes several larvae can be found at one site (De Geer 1776; Beling 1882; Wandolleck 1898; Metcalf 1917; Krüger 1926; Hodson 1931; Alsterberg 1934; Cherian 1934; Blanton 1938; Heiss 1938; Laurence 1953; Dixon 1960; Shaw 1960; Hartley 1961; Moeller 1965; Cole 1969; Skidmore 1978; Blackith & Blackith 1989; Rotheray 1993; Canovai & Raspi 2000). Fabritius (1981) has reported on the parasitic chalcidids, ichneumonids and proctotrupids (Hymenoptera) (see Notton 1991).

Syritta fasciata (Wiedemann, 1830)

Figs 2, 126, 127.

Xylota fasciata Wiedemann, 1830: 103.
Syritta abyssinica Rondani, 1873: 282. New synonym.
Syritta subtilis Becker, 1903: 89. New synonym.



Figures 126, 127. Epandrium with appendages of *Syritta fasciata* (Wiedemann). – 126: lateral view; 127: dorsal view.

Syritta fasciata (Wiedemann) is a species with a very wide distribution area, as it ranges from southern Africa through eastern Africa and the Middle East to Iran and NW India (for details, see below). The type-material of *S. fasciata* and its synonyms originates from a limited area around the Tropic of Cancer to the South: *S. fasciata* from "Nubien" which is northern Sudan, *S. abyssinica* Rondani from the Keren area in northern Eritrea, and *S. subtilis* Becker from Luxor in central Egypt.

The name *fasciata* (Wiedemann) has been used by various specialists as a "museum name" for a number of different species, several of which are described as new in the present revision, i. e. *S. congoensis* new species, *S. hirta* Curran, *S. lanipes* Bezzi, *S. longiseta* new species, *S. leona* new species, and *S. pilosa* new species.

Together with *S. pipiens* (Linnaeus) and *S. leona* new species, *S. fasciata* forms a subgroup within the *S. pipiens* species-group, characterised by a very thin and basally obsolete spurious vein. These three species are sympatric in parts of their distribution areas, *S. fasciata* and *S. leona* in southern Africa, and *S. fasciata* and *S. pipiens* in Israel and NW India. An examination of the male genitalia can be decisive for a correct identification, because it is possible to find specimens of *S. pipiens* with entirely yellow-brown fore and mid femora.

Interbreeding between *S. pipiens* and *S. fasciata* may occur. We have examined a small series of three males and one female from Jordan (in coll. Mus. Leiden). The male genitalia are similar to those of *S. pipiens*, i. e. with a submedian bump. One of the males has brownish streaks on the fore and mid femora, the other two males have uniformly yellow-brown fore and mid femora. All three males have the small size and narrow body shape of *S. fasciata*, and the characters of the head and wings also agree with *S. fasciata*.

Four males from Iranian Beluchistan: Iranshar and Sangun in the SMNS have a much paler abdomen than Afrotropical specimens, as tergum 2 possesses only indistinct traces of a median vitta, and also the hind femora are paler in colour. However, the genitalia agree in every respect with those of *S. fasciata*.

Diagnostic characters.

S. fasciata is probably the *Syritta* species which is most often misidentified (see

above). Belonging to the subgroup of 4 species with a very thin to nearly obsolete spurious vein, it is easily separated from *S. leona* new species by the different curvature of the apical marginal vein (M1) (see figs 2 and 4). The slender body-shape distinguishes it from *S. pipiens*, but a dissection of the genitalia is often necessary for a safe identification. The fourth species in the subgroup, *S. stylata* new species has a almost obsolete spurious vein, and its genitalia (figs 128, 129) have larger cerci and surstyli.

Redescription – male.

Face distinctly concave, tomentum pale yellow-grey with a golden tinge. Oral margin level with frontal prominence. Eye contiguity c. 2.2. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.5-4.0/0.8-1.0; tomentum grey-yellow. Distance between anterior ocellus and eye-margin shorter than width of ocellus. Ocellar plate with a pair of tomentose dots arranged between the anterior and the posterior ocelli. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere whitish yellow; size c. 2.5 x 1.4; arista 3.2.

Tomentum of katepisternum and anterior part of anepisternum greyish, of posterior part of anepisternum, postpronotum and lateral scutum to suture yellow-grey. Scutellum black, with a pair of subapical black setae; length c. 50 µm. Mesonotal pile very short, pale.

Veins and spurious vein brown-black, well-marked. Spurious vein markedly thinner than neighbouring veins. Stigma brownish, and wing brownish tinged. Apical part of wing with microtrichia present in the apical parts of the cells and along apicoposterior wing-margin. Apical marginal vein with concavity at middle (see fig. 2).

Fore and mid legs yellow-brown. Hind femur slightly incrassate, ventrobasal profile line nearly straight. Colour rather variable, usually brown-black, or with extreme base brown, and in some specimens a similarly coloured band at middle of ventral surface; sometimes even pale brown with a dark brown apex as in Egyptian and Iranian specimens.

Ventrobasal section of hind femur with an irregular row of 5 to 9 small tubercles, each tubercle with a short, blunt-tipped setula. The row starts in a subbasal position and is truly ventral in placement. Posteroventrally a few thin, pale setae as long as tibial width. Ventroapical section of hind femur with the usual armature, including 4 to 6 black posteroventral setae before apex.

Hind tibia without modifications other than a sharp anteroventral carina. Colour dark brown, with a yellowish base, and a paler brown ring at middle.

Tergum 1 black from sidemargin to sidemargin of tongue-shaped posterior part, anterolateral corners yellow. Tergum 2 yellow with black anterior and posterior fasciae, and a black median vitta of one-sixth to one-fourth tergal width, wider anteriorly than posteriorly. Tergum 3 yellow, with black posterior fascia and a parallel-sided vitta of c. one-sixth tergal width; this vitta not reaching anterior margin. Tergum 4 black, with yellow-brown posterior margin and extensive tomentose anterolateral areas which spread along sidemargins to about middle of segment. Sternum 4 with a V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 126): cercus low and short, rather pointed, with a narrow "root". Dorsal surstylar lobe, which is often fully

exposed, long, narrow, of almost equal width throughout, and with a low subbasal bump; pile sparse and short. Ventral lobe of surstylus with a small postero-medially directed, blunt-tipped projection on posterior margin. Dorsal view (fig. 127): cerci rather pointed. Distal part of dorsal surstylar lobe nearly parallel-sided, at middle a low bump on the median side. Surstylar apodemes not visible. Hood of ejaculatory apodeme much larger than hood of aedeagal apodeme.

Female.
Face as in male. Frons with a ratio between tomentose lower part and shining black upper part of c. 5.0/3.0; the relatively short black part with a pair of well developed tomentose areas that may connect medially to form a transverse band which may cover c. one-third of black part, but do not connect to tomentose lower part. Distance from anterior ocellus to eye-margin slightly longer than width of ocellus. Thorax, wings, and legs as described for the male. Abdomen much wider than in the male, median vitta of tergum 2 c. one-fourth of total tergal width. Tergum 3 with anterolateral areas distinctly yellow-brown in colour, partly covered by whitish tomentum. Tergum 4 as in male.

Length: 6-7 mm.

Material examined.
Type material.
Syritta fasciata (Wiedemann, 1830).
"Syntype": ♀. Handwritten label: "Nubien, Rüppel." / handwritten label: "X. *fasciata*, Wiedem. ♀" / typed label: "Coll. H. Loew" / red, typed label: "Typus" / handwritten label: "*Syritta fasciata* W." / typed label: „Zool. Mus. Berlin" (ZMHB). Condition: well preserved. [It may be possible that Loew got this specimen from Wiedemann. There are no specimens in the Frankfurt museum (SMF).]

Syritta abyssinica Rondani, 1873.
Holotype: ♂. Labelled "Eritrea, Adi-Caie, 1.X.1902, Dr. A. Adreini" (MCSN). Condition: good.

Syritta subtilis Becker, 1903.
Syntype: ♂. Handwritten label: "Luxor, 44513, XII" / typed label: "Zool. Mus. Berlin" / red handwritten label: "Lectotype!, *S. subtilis* Berlin" (ZMHB). Condition: well preserved.

Additional material.
We present a list of safe records, because misidentifications are very frequent.
1 ♂. India, NW, Deesa, XII.1899, leg. Nurse (BMNH);
1 ♀. India, NW, Deesa, IV.1901, leg. Nurse (BMNH);
1 ♂. India, Mussoorie, VI.1909, coll. Brunetti (BMNH);
2 ♂♂, 1 ♀. Iran, Belutschistan, Iranshar, 800 m, 22.V.-2.Vi.1954, leg. Richter & Schäffele (SMNS);
1 ♂. Iran, Belutschistan, Sangun, E of Kuh Tafian, 1650 m, 4.-18.VI.1954, leg. Richter & Schäffele (SMNS);
1 ♂. Lebanon, Beirut, 35 km N, 23.-30.IX.1971, leg. Walker (CNC);

1 ♂. Lebanon, Tabarja N. Beirut, 2.X.1971, leg. Walker (CNC);
1 ♂. Yemen, Sana, 7000 ft, 22.-30.IX.1937, leg. Rathjens (BMNH);
1 ♀. Yemen, Sana, 3 miles W, 8100 ft, 27.-28.II.1938, leg. Scott & Britton (BMNH);
1 ♂. UAE, Oman, date: ?, leg. ? (BMNH);
2 ♂♂. Israel, Rehoboth bei Jaffa, date: ?, leg. Aharoni (SMNS);
1 ♂. Israel, Beersheba, 18.V.1951, leg. Verhoeff (RMNH);
1 ♂. Israel, Mt. Carmel, 1.VII.1952, coll. Bequaert (IRSNB);
1 ♂. Israel, Jericho, 10.XI.1970, leg. Kugler (RMNH);
1 ♀. Israel, Hermon, 22.VI.1971, leg. Kugler (RMNH);
1 ♂. Israel, Sedom, 12.IV.1972, leg. Kugler (RMNH);
1 ♂. Israel, 5 km W Jericho, 6.V.1996, leg. Hauser (coll. Nielsen);
1 ♂. Egypt, Aswan; date: ?, leg. Hayward (BMNH);
1 ♂. Egypt, Ezbet-Naght, 13.IV.1922, coll. Efflatoun (SMF);
2 ♀♀. Egypt, Shoubra, 20.III.1923, leg. Efflatoun (ZMF);
1 ♂. Egypt, SE Desert, Gebel Elba, III.-IV.1928, coll. Efflatoun (CNC);
1 ♂. Egypt, G. Elba, W. Kansisrob, 25.I.1929, coll. Efflatoun (CNC);
1 ♂. Eritrea, Keren, 4.XI.1956, leg. Greathead (BMNH);
1 ♀. Eritrea, Wadi Damas, 26.I.1957, leg. Greathead (BMNH);
2 ♂♂, 5 ♀♀. Ethiopia, Alemaya, 31.XII.1964, leg. B. G. Hill (USNM);
1 ♂. DR Congo, Elisabethville [= Lubumbashi], Kimilolo, 6.XI.1920, leg. J. Bequaert (MRAC);
1 ♂. Kenya, Nairobi, 30.IX.1951, leg. Edwards (BMNH);
1 ♂, 1 ♀. Kenya, Nyeri Forest Station, 3.II.1968, leg. Boyes (CNC);
1 ♂. Tanzania, Tanga Reg., Kvamsambia, 1.-18.II.1987, leg. Mahunka & Zicsi (HNHM) [remark: only c. 4 mm];
1 ♀. Malawi, Chimaliro Forest Reserve, 1200 m, *Brachystegia*, 9.XII.1980, leg. Stuckenberg & Londt (NMSA);
1 ♀. Tanzania, Nyassa-See [= Lake Malawi], Langenberg, VI.-VII.1898, leg. Fülleborn (ZMHB);
1 ♀. Burundi, Nyanza Lac, 780 m, 26.IX.1948, leg. François (IRSNB);
1 ♂. Botswana, Serowe, 1993, leg. Forchhammer (CNC);
1 ♀. Zimbabwe, E. Vumba, 24.IV.1965, leg. Cookson (NMSA);
1 ♂. Mozambique, Lou. Marques, 1914, leg. Junod (USNM);
1 ♀. Mozambique, Lower Zambesi River, Luabo, VI-VII.1957, leg. Usher & Stuckenberg (ZMUC);
1 ♂. Namibia, Ongaomo, 23.-28.I.1973, leg. Lindner (SMNS);
1 ♂, 3 ♀♀. Swaziland, Manzini, 29.V.1991, leg. Lucas (ZMAN);
1 ♂. South Africa, [Eastern] Cape Prov., Uitenhage, 30.X.1931, leg. Ogilvie (CNC);
1 ♂. South Africa, [Eastern] Cape Prov., Graaf Reinet, 24.-27.X.1931, leg. Mackie (CNC);
1 ♂. South Africa, W Pretoria Park, 20.IV.1974, leg. Boyes (CNC);
2 ♂♂, 1 ♀. South Africa, Tongaland, Ndumo Reserve, Ingwavuma District, 1.-10.XII.1963, leg. B. & P. Stuckenberg (NMSA);
2 ♂♂. South Africa, [Eastern] Cape, Grahamstown, 12.II.1971, leg. Londt (NMSA);
5 ♂♂, 1 ♀. South Africa, Patensie D., Wit River Valley, Cambria area, 6.XII.1967, leg. B. & P. Stuckenberg (4 ♂♂+1 ♀: NMSA; 1 ♂: ZMUC);

1 ♂. South Africa, [Northern] Cape Prov., Messelpadpas, 25 mi SSW Springbok, 2917 Dc, 1 100 ft, 7.IX.1972, leg. Irwin (NMSA);
1 ♂. South Africa, Transvaal [Mpumalanga Prov.], Lomati River Headwaters Barberton Havelock, 1 175 m, 25.II.1971, leg. Stuckenberg (NMSA)
6 ♂♂, 1 ♀. South Africa, [Eastern] Cape, 15 km W Humansdorp, hillside Maccia, 7.XII.1979, leg. Stuckenberg & Londt (5 ♂+1 ♀: NMSA; 1 ♂: ZMUC);
1 ♂. South Africa, [Eastern] Cape, Rhodes Village, 4. & 5. II.1992, leg. NM. exp. [= Natal Museum expedition] (NMSA);
1 ♂. South Africa, Otterford Reserve, Hankey area, 1.-10.XII.1967, leg. B. & P. Stuckenberg (NMSA);
1 ♂. South Africa, [Eastern] Cape, Albany, 7.VII.1952, leg. B. & P. Stuckenberg (NMSA);
1 ♂. South Africa, KwaZulu-Natal, Richmond, 16.I.1981, leg. ? (NMSA);
1 ♂. South Africa, Pretoria, 15.II.1915, leg. Roberts (NMSA);
1 ♂, 1 ♀. South Africa, [Western] Cape, Ashton, False Macchia Slopes, 10.IX.1981, leg. Schoeman, Londt & Stuckenberg (NMSA);
1 ♂, 1 ♀. South Africa, [Eastern] Cape, 6 km E of Alicedale, 600 m, 21.XI.1990, leg. Whittington & Londt (NMSA);
1 ♂. South Africa, KwaZulu-Natal, Mlopheni River Muden, 900 m, dry [illegible] riverine, 24.IV.1991, leg. Whittington (NMSA);
1 ♂. South Africa, Transvaal [Limpopo Prov.], Ofcolaco, Selati River, ? -8.VII.1[illegible], leg. Miller (NMSA);
1 ♀. South Africa, Transvaal [Mpumalanga Prov.], 5 km W Sabie, Lone Creek River, 5.XII.1976, leg. Miller (NMSA);
1 ♀. South Africa, Albany D., Resolution, 7.IV.1925, leg. Walton (NMSA);
1 ♂. South Africa, Plettenberg Bay, 14.III.68, leg. Spangler (USNM);
1 ♂. South Africa, Eastern Cape, Prince Albert Valley, western outskirts ["Randbereich"], 11.I.2002, leg. Barkemeyer (Bkm);
1 ♂. South Africa, Maputoland, Mkuzi, at Mkuzi Dam ["Randbereich"], 25.XI.2000, leg. Barkemeyer (Bkm);
1 ♂. South Africa, Western Cape, 60 km N George: Meiringspoort, in river-bed ["Flussbett"] 9.I.2002, leg. Barkemeyer (Bkm);
1 ♀. South Africa, Zululand, Eshowe, northern outskirts ["nördlicher Randbereich"], at gravel road ["Feldwegrand"], 21.XI.2000, leg. Barkemeyer (Bkm);
1 ♂. South Africa, [Western] Cape Prov., Mossel Bay, IV.1921, leg. Turner (BMNH);
1 ♀. South Africa, Transvaal [Gauteng], Pretoria, 11.XII.1918, leg. ? (CNC);
1 ♀. South Africa, [Eastern] Cape Prov., Port Alfred, 27.-29.XII.1974, leg. Boyes (CNC).

Distribution.

S. fasciata (Wiedemann) has a very wide distribution, as will be apparent from the above list. In the Afrotropical region it is absent from western and central Africa, the most north-western known locality being Lubumbashi ["Elisabethville"] in southern DR Congo. Further from Namibia, South Africa, Swaziland, Botswana, Zimbabwe, Mozambique, Malawi, Burundi, Tanzania, Kenya, Ethiopia, and Eritrea. The distribution area stretches further north and east to include Egypt, Israel, Lebanon, Yemen, UAE, Iran, and NW India.

Habitat.
The following information is available from specimens collected in South Africa and Malawi: "hillside Macchia", "false Macchia slopes", "dry bushveld riverine", and "Brachystegia woodland". One of us (WB) has collected the species in South Africa in more or less open habitats like river-beds, margin of gravel-roads, and meadows with shrubs.

Syritta stylata new species

Figs 128, 129.

The discovery of this undescribed species in southern India is of special interest, because it is a member of the otherwise non-Oriental *S. pipiens* species-group and is one of several examples of parallelism in the genus *Syritta* regards to the reduction of the spurious vein. The species has been collected mainly in hilly country in southern India, but there is also an isolated record from Punjab in northern India. As mislabelling cannot be ruled out, confirmation of its occurrence there should be wellcome. Six species of *Syritta* are now known from India, and *S. stylata* is the only one with an almost obsolete spurious vein.

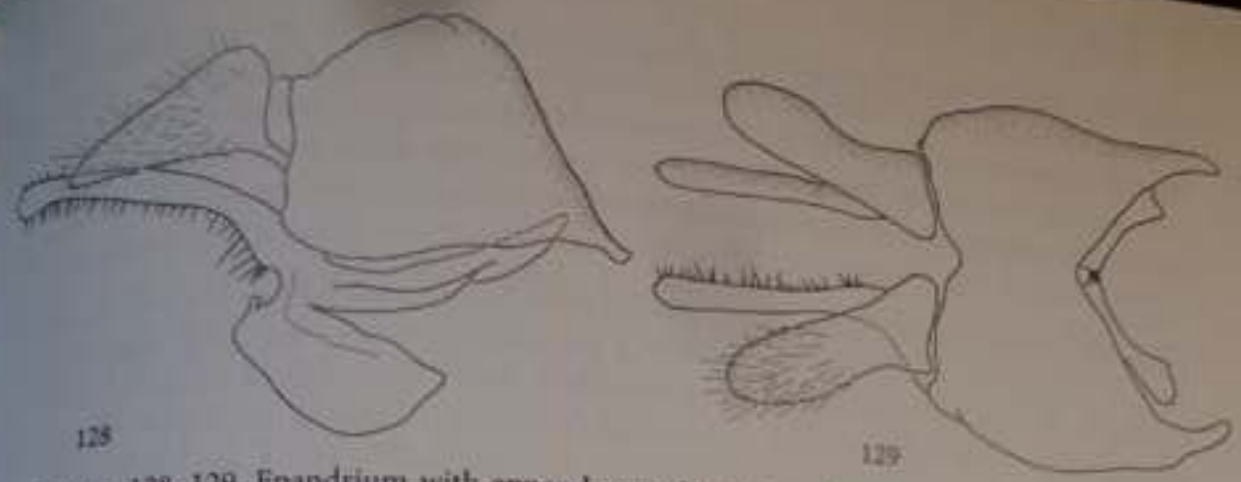
S. stylata is a larger and more broadly built species than *S. fasciata* (Wiedemann) which we can record from the foothills of the Himalayas some 1,500 km further north. It can be confused with *S. pipiens* (Linnaeus) which occurs in NW India. Both *S. fasciata* and *S. pipiens* have a thin but almost complete spurious vein, and there are distinct differences in the male genitalia (see the illustrations).

Diagnostic characters.
S. stylata new species can be distinguished from the other species of the *S. pipiens* species-group by the indistinct spurious vein. In the male genitalia, the dorsal lobe of the surstylus is a slender and almost uniformly wide rod, without any hump; the cerci are conspicuous, with an almost straight median margin and concave lateral margin, apex broadly rounded.

Three other *Syritta* species occur in southern India: *S. orientalis* Macquart, *S. indica* (Wiedemann) and *S. proximata* new species. All three species possess a well developed spurious vein. *S. orientalis* has a ventral spina at the base of the hind femur, and the two other species do not possess a distinct black median vitta on tergum 2 as does *S. stylata*.

Description – male.
Face slightly concave, yellowish-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.0. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 4.0-5.0/1.0; tomentum yellowish-grey. Distance between anterior ocellus and eye-margin shorter than width of ocellus. Largest facets c. 40 µm. Upper occiput with tomentose marks. Ocellar plate with pair of tomentose dots. Basoflagellomere yellow-brown, dorsal and apical margins may be darkened; size c. 3.0 x 2.2; arista c. 4.5.

Tomentum of pleura, postpronotum and lateral scutum to suture greyish. Remain-



128 129

Figures 128, 129. Epandrium with appendages of *Syritta stylata* new species. – 128: lateral view; 129: dorsal view.

ing part of scutum and scutellum black, densely punctured and with short pale pilosity. Marginal scutellar setae short and pale; also with a pair of minute black setae, c. 60 µm long.

Spurious vein indistinct, but usually present as a thin line posterior and anterior to the knot in cell R at level of base of cells R2+3 and DM. Regular veins dark brown, rather thin, but well marked. Wing surface hyaline; stigma pale yellow-brown. Fine microtrichia present in most anterior parts of the R-cells and cell DM, and also between marginal veins and posterior wing-margin. Mid section of anterior marginal vein straight to very sligthly concave (see *S. leona* n.sp).

Fore and mid legs yellowish-brown. Hind femur moderately incrassate, ventrobasal profile line straight; colour usually uniformly brown-black to black, rarely slightly paler at extreme base.

Armature of ventrobasal section of hind femur composed of 8 to 10 minute tubercles, each with a small black setula; also 4 to 6 thin whitish setae in a posteroventral position. Ventroapical section of hind femur with the usual armature, including 5 strong black posteroventral setae before apex.

Hind femur unmodified, except for the usual anteroventral carina. Colour dark leather-brown, paler yellow at base and in a ring around middle.

Tergum 1 coal-black from sidemargin to sidemargin of posterior tongue-shaped part; anterolateral areas yellow-brown, more or less distinctly tomentose. Tergum 2 yellow-brown, with an anterior as well as a posterior blackish fascia and a median black vitta of c. one-fifth of tergal width. Tergum 3 similar to tergum 2, but without an anterior fascia and a vitta not reaching anterior margin. Tergum 4 slightly wider than tergum 3, black with broad yellow-brown strip of integument posteriorly; large anterolateral areas of tomentum which extend to near posterior corners; dorsal profile line of tergum 4 straight (compare with figs 60, 61). Curiously, the surstyli are often exposed in this species. Sternum 4 rather projecting, with a deep V-shaped incision into margin; marginal setae weak and pale.

Genitalia. Lateral view of epandrium and its appendages (fig. 128): cercus elongate triangular, with narrow "root" to its apodeme. Dorsal lobe of surstylus a slender, sligthly curved, and almost uniformly wide rod, without any hump, and provided with short spread setae. Ventral surstylar lobe subtriangular; posterior margin only

slightly projecting, with a narrow, dorso-medially directed, blunt-tipped process. Dorsal view (fig. 129): cerci with nearly straight median margin, the lateral margin concave, apex broadly rounded. Dorsal surstylar lobes almost parallel-sided, and the pile mainly situated on the median surface. Surstylar apodeme fused for a short distance. Ejaculatory apodeme with a large hood.

Female.
Face as in male. Frons with a ratio between tomentose lower part to blackish upper part of c. 5.5/4.5, the blackish part with a pair of large tomentose areas that often touch on the midline and thus form a transverse band. Eye-margins separated from anterior ocellus by width of ocellus. Basoflagellomere more extensively darkened than in male. Characters of thorax, wings, and legs as in the male. Terga 1 and 2 as in male, but tergum 2 wider, having the same relative dimension as the median vitta. Terga 3 and 4 predominantly black, tergum 3 with yellow-brown and lightly tomentose anterolateral areas, but anterolateral areas of tergum 4 is more thickly tomentose; tergum 4 also with the same yellow-brown posterior strip of tomentum as in male.

Length: 7-8 mm.

Material examined.
Holotype: ♂. India, South, Shevaroy Hills, Yercaud, 4.500 ft, XII.1954, leg. P. S. Nathan (RMNH).
Paratypes:
1 ♂. India, Tamil Nadu, Shevaroy Hills, Yercaud, 4 500 ft, XII.1954, leg. P. S. Nathan (RMNH) [same data as holotype];
1 ♂. India, Tamil Nadu, Nilgiri Hills, Devala, 1 000-1 100 m, X.1960, leg. P. S. Nathan (RMNH);
1 ♂, 1 ♀. India, Kerala, Calicut Dist., Chembra Peak, 3 500 ft, V.1970, leg. T. R. Susai Nathan (♂: ZMAN, ♀: ZMUC);
2 ♂♂. India, Kerala, Cinchona, Anamalai Hills, 3 500 ft, V.1969, leg. T. T. Susai Nathan (1 ♂: ZMAN., 1 ♂: ZMUC);
1 ♂. India, Kerala, Cinchona, Anamalai Hills, 2 500 ft, V.1964, leg. P. S. Nathan (ZMAN);
2 ♂♂. India, Kerala, Anamalai Hills, 3 500 ft, V.1956, leg. P. S. Nathan (RMNH);
1 ♂. India, Anamalai Hills, V.1957, leg. P. S. Nathan (RMNH);
1 ♀. India, Kerala, Cinchona, Anamalai Hills, V.1967, leg. P. S. Nathan (ZMAN);
1 ♀. India, Kerala, Anamalai Hills, IV.1956, leg. P. S. Nathan (RMNH),
1 ♀. India, Kerala, Cinchona, Anamalai Hills, Cinchona, 1 050 m, V.1967, leg. P. S. Nathan (ZMAN);
1 ♂. India, Karnataka, Mudigere, 700 m, 8.IV.1975, leg. Ghorpade (USNM);
1 ♀. India, C. Punjab, XII.1955, leg. P. S. Nathan (RMNH), det. as *S. orientalis*, by van Doesburg [mislabelled? All other records of this species are from S. India].

Distribution.
The range is limited to southern India, the record from Punjab being doubtful.

Etymology.
The name refers to the shape of the dorsal surstylar lobe.

VI. The *lanipes* species-group

This species-group of three species is strictly Afrotropical. The autapomorphies for the species-group are the narrow alula (fig. 6), the presence of only 3 posteroventral setae in apical part of hind femur, and the presence of an elongate pilosity on the posterior surface of the hind tibia (see figs 130-132). The poorest provision with such hind tibial pilosity is found in *Syritta longiseta* new species (fig. 130), which has less than ten setae before the posterior apex. *S. longiseta* is by far the most widely distributed of these species. However, these apico-posterior setae are not easily observed, but additional characters for *S. longiseta* are the usually basally darkened fore and mid femora, the shining blackish hind femur, and the poor provision with microtrichia in the apical part of the wing (see descriptions).

In *Syritta lanipes* Bezzi and *S. pilosa* new species the hind tibial pilosity is more extensive (figs 131, 132), the fore and mid femora are yellow-brown, the hind femur is partly brownish, and the part of the wing distal to cross-vein R-M has a dense and uniform covering by microtrichia.

There are only small differences in the male genitalic structures between the three species, which undoubtedly form a monophyletic group. It should be noted that all three species of the *Syritta lanipes* species-group occur in the Kampala-Entebbe area in Uganda.

Syritta longiseta new species

Figs 39, 83, 130, 133, 134.

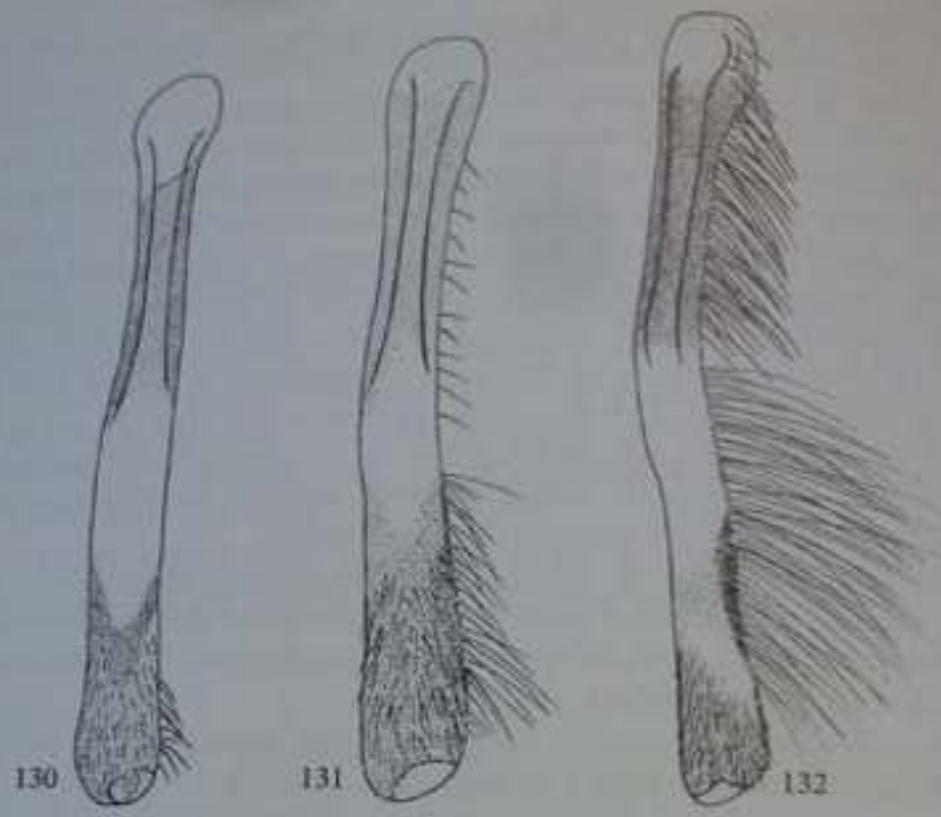
This is by far the most widely distributed of the three Afrotropical species forming the *S. lanipes* species-group. Strangely enough, it has not been possible to find an available published name for it. It has been misidentified as *S. fasciata* (Wiedemann), *S. nigrifemorata* Macquart, and *S. abyssinica* Rondani by various syrphidologists.

The presence of several elongate setae before posterior apex of hind tibia (see fig. 130) has led us to assign *S. longiseta* new species to the *S. lanipes* species-group, and the male genitalia of *S. longiseta* (figs 133, 134) are also very similar to those of the other two species in the species-group. The specific name does not refer to the hind tibial pilosity, but rather to the presence in the male sex of 4 to 6 extraordinarily elongate whitish setae on the posteroventral surface of the hind femur.

Diagnostic characters.

Fore and mid femora usually markedly darkened basally, and hind femur shiny black. Posterior surface of hind tibia (fig. 130) before apex with less than 10 moderately long setae, which are longer in male than in female. Posteroventral surface of male hind femur with 4 to 6 extraordinarily elongate whitish setae; they are shorter in the female. Cerci and apex of dorsal surstylar lobe with a very long pilosity.

The female sex may be confused with *S. leucopleura* Bigot; however in *S. longiseta* the anteroventral carina of the hind tibia is simple and continuous, whereas in *S.*



Figures 130-132. Male hind tibia in dorsal view of 130: *Syritta longiseta* new species; 131: *S. lanipes* Bezzi; 132: *S. pilosa* new species.

leucopleura the hind tibial carina is interrupted around the middle of the tibia; reminiscent of the lamina found in the male sex.

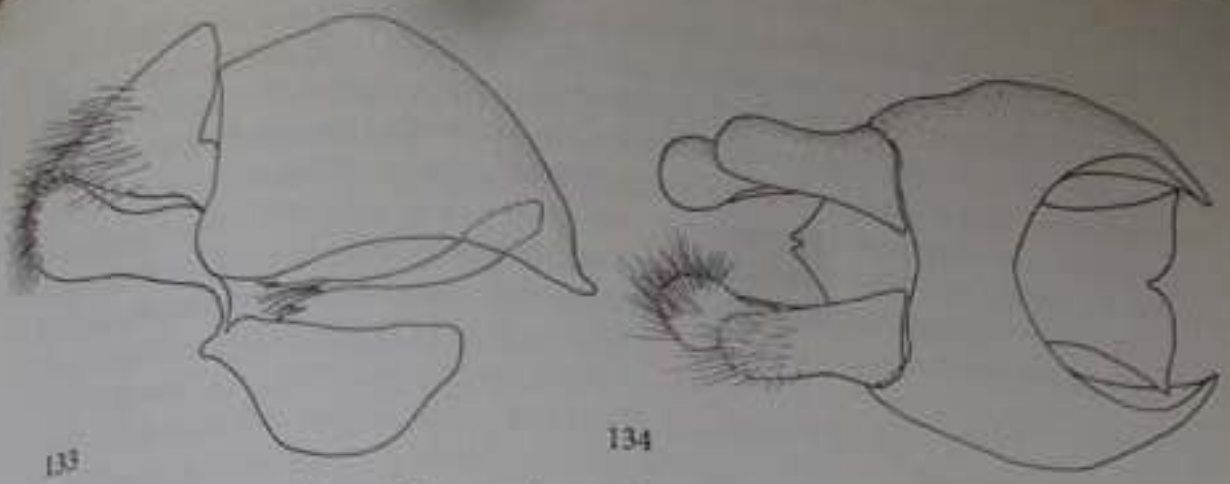
Description – male.

Face slightly concave, whitish yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity long, c. 4.0-4.5. Vertical triangle (fig. 39): ratio between tomentose lower part and blackish upper part c. 3.5/1.5. Anterior ocellus separated from eye-margin by a distance shorter than width of ocellus. Largest facets c. 50 µm. Upper occiput with distinct tomentose marks. Basoflagellomere yellow; size c. 3.3 x 2.2; arista c. 5.2.

Tomentum of katepisternum grey, of anepisternum, postpronotum and lateral scutum to suture grey-yellow, but also anepisternum may be rather dark grey. Scutellum with fine pale marginal setae; also with a pair of black setae which may be up to 120 µm long. Mesonotal pile brownish.

Veins and spurious vein blackish. Stigma brown-black. Apical part of wing with bare areas as follows: area between spurious vein and vein M1+2 in cell R4+5 and along anterior and posterior margins of cell DM. Microtrichia well distributed in the most apical parts of the wing.

Fore and mid legs yellow-brown, femora may be more or less dark brownish in about basal half. Hind femur markedly incrassate, either entirely blackish and shining, or blackish with some red-brown colour on ventral surface. Ventrobasal profile line straight.



133 134

Figures 133, 134. Epandrium with appendages of *Syritta longiseta* new species, paratype, Tanzania, East Usambara. – 133: lateral view; 134: dorsal view.

Ventrobasal section of hind femur with an anteroventral row of 6 or 7 very short, blunt-tipped black setulae, the first in a subbasal position, and all on minute tubercles. At level of the subbasal setula are 3 or 4 similar setulae in a more posteroventral position. Anterior to this row of setulae a series of 6 or 7 thin white setae at least as long as tibial width. Posteroventrally to row of setulae a series of 4-6 small tubercles each of which carries a **very long**, thin white seta; the length of these setae 2 to 3 times as long as the tibial width. Ventroapical section of hind femur with the usual armature, usually only 3 posteroventral setae before apex, which may be black or whitish.

Hind tibia (fig. 130) with a sharp anteroventral carina; some elongate posterior setae at apex. Colour dark leather-brown, with yellowish base, and a paler brown ring at middle.

Tergum 1 blackish, with anterolateral areas and a narrow lateral border of the tongue-shaped posterior part yellow. Tergum 2 with an anterior triangular fascia, the apex of which may or may not reach the posterior fascia. Tergum 3 with only a posterior fascia. Tergum 4 distinctly wider than tergum 3, shining black with an indistinct violet shine, and a well marked strip of yellow-brown integument along posterior margin. The anterolateral areas of tomentum are of restricted size. Sternum 4 with a deep V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 133): cercus large, triangular, with a wide "root"; its pilosity pale and very long, some setae longer than the cercus itself. Dorsal lobe of surstylus very broadly built, sligthly increasing in width towards apex, which is provided with long, thin setae, mostly on the inner side. The long setae of cerci and surstyli are remarkable also in non-dissected specimens. The ventral lobe of surstylus only slightly projecting posteriorly. Dorsal view (fig. 134): cerci broadly rounded apically, side-margins slightly concave. The subglobular apex of the dorsal surstylar lobes with a dense covering of fine setae. Surstylar apodemes fused for a long distance. Hood of ejaculatory apodeme is several times larger than hood of aedeagal apodeme.

Female.

Face as in male. Frons (fig. 83) with a ratio between tomentose lower part and black upper part of c. 4.0/6.0; pair of tomentose areas on black upper part relatively small

and separate. Distance from anterior ocellus to eye-margins equal to width of ocellus. Basoflagellomere darker than in male. Thorax, wings, and legs as described for male; in all females available, the infuscation of the basal half of fore and mid femora is more pronounced, whereas the whitish setae of the hind femur are weaker than in the male. Terga 2 and 3 have a striking pattern of a bright yellow and coal-black, the median vitta of tergum 2 occupying c. one-fourth of tergal width, that of tergum 3 being slightly narrower. Anterolateral areas of tomentum on tergum 4 occupying c. one-fourth of tergal length at lateral margin, and a well-marked posterior strip of pale yellow tomentum present.

Length: 7-8 mm.

Material examined.
Holotype: ♂. Uganda, Ankole, Kichwamba, 23.-29.IV.1968, leg. Spangler (USNM).

Paratypes:
3 ♂♂. Liberia, Robertsport, 27.III.1943, leg. S. M. Snyder (AMNH);
1 ♀. Liberia, Robertsport, 15.XI.1943, leg. S. M. Snyder (AMNH);
1 ♀. Nigeria, Ibadan, 9.X.1962, leg. Eldt (CNC);
1 ♂. Cameroon, W., nr Kumba, 20.IV.1970, leg. Disney (USNM);
1 ♂. Cameroon, W., nr Kumba, 13.V.1970, leg. Disney (USNM);
1 ♂. Cameroon, Douala, 7.VII.1974, leg. Lucas (ZMAN);
2 ♀♀. Cameroon, Douala, 1. & 2.VII.1975, leg. Lucas (ZMAN);
1 ♂, 1 ♀. Cameroon, S., Kribi, 21. & 20.VII.1975, leg. Lucas (ZMAN);
2 ♂♂. Cameroon, 110 km SSW Yaounde, Ebolowa 2 km W: Bilon, 1.III.1984, leg. Barkemeyer (Bkm);
1 ♂. Cameroon, 85 km WSW Yaounde, Eseka, 3 km W, 14.III.1984, leg. Barkemeyer (Bkm);
1 ♂. DR Congo, Congo da Lemba, V.1912, leg. A. Collart (MRAC);
1 ♂. DR Congo, Congo da Lemba, IV.1913, leg. R. Mayné (MRAC);
1 ♂. DR Congo, Mavumbe, Kikongo, 9. VII.[19]26, A. Collart (MRAC);
1 ♂. DR Congo, Mavumbe, Kikongo, 8. VIII.[19]26, leg. A. Collart (MRAC);
1 ♂. DR Congo, Lubumbashi ["Elisabethville"], I.1929, leg. J. Bequaert (MRAC);
1 ♀. DR Congo, Katanga, Kiamanwa, II.1931, leg. H. J. Bredó (MRAC);
1 ♂. DR Congo, Kivu, Sake 252, 19.-22.II.1934, leg. G. F. de Witte (MRAC);
1 ♀. DR Congo ["Congo belge"], Kinshasa ["Leopoldville"], X.1934, leg. Ghesquière (ZMUC);
1 ♀. DR Congo ["Congo belge"], Eala, X.1935, leg. Ghesquière (IRSNB);
2 ♂♂, 4 ♀♀. DR Congo, Uelé, Gangala na Bodio, 15.V.[19]36, leg. L. Lippens (MRAC);
2 ♂♂. DR Congo, Parc National Garamba ["P. N. G."], 923, 2.XI.1950, leg. Miss. H. D. Saeger (MRAC);
1 ♂. DR Congo, Parc National Garamba ["P. N. G."] 944, 9.XI.1950, leg. Miss. H. D. Saeger (MRAC);
1 ♂. DR Congo, Parc National Garamba ["P. N. G."], 2195, 3.VIII.1951, leg. Miss. H. D. Saeger (MRAC);
1 ♂. DR Congo, Parc National Garamba ["P. N. G."] 2761, 14.XI.1951, leg. Miss. H. D. Saeger (MRAC);

1 ♂. DR Congo, Parc National Garamba ["P. N. G."] . 3820, 24.VII.[19]52, leg. Miss. H. D. Saeger (MRAC);
1 ♂. DR Congo, Parc National Albert ["P. N. A."] 9191, 16.VII.1954, leg. P. Vanschuytbroeck & H. Synave (MRAC);
1 ♂. Uganda, Ankole, Kichwamba, 23.-29.IV.1968, leg. Spangler (USNM) [same data as holotype];
1 ♀. Uganda, Entebbe, VIII.1959, leg. Benoit (ZMUC);
1 ♀. Uganda, Entebbe, lakeside swamp; 16.X.1971, leg. Boyes (CNC);
1 ♂. Uganda, Entebbe, 9.XI.1971, leg. Falke (CNC);
1 ♀. Uganda, 9.XI.1971, leg. Falke (CNC);
2 ♀♀. Uganda, Entebbe, in forest, 11.II.1972, leg. Falke (CNC);
1 ♂. Uganda, Entebbe, 10.V.1972, leg. Falke (CNC);
2 ♂♂, 2 ♀♀. Uganda, 7 ml. N Entebbe, near lake Victoria, 1 135 m, III.1972, leg. Falke (CNC);
1 ♂. Uganda, nr Entebbe, 1 160 m, 23.-31.I.1973, leg. Falke (CNC);
1 ♂. Uganda, S., Mbara, 1 220 m, V.1972, leg. Babyetagara (CNC);
1 ♂. Kenya, Kagamuga Forest, 23.I.1968, leg. Boyes (CNC);
1 ♂. Kenya, [locality:] ?, [date:] ? , leg. Marc de Meyer (MRAC);
1 ♀. Tanzania, Morogora, I.1963, leg. Heinrich (CNC);
2 ♀♀. Tanzania, Usambara Mts, Amani 1 000 m, 25. & 29.XII.1975, leg. Lomholdt (ZMUC);
2 ♂♂. Tanzania, Usambara Mts, Monga N of Amani, 27.XII.1975, leg. Lomholdt (ZMUC);
1 ♂. Tanzania, East Usambara, Amani, Monga, 2.II.1977, leg. Zoological Museum Expedition ["Z. M. Exp."] (ZMUC);
1 ♂. Tanzania, Usambara Mts, N. Lushoto, Magamba, 5.IX.2003, leg. Barkemeyer (Bkm);
1 ♂. Tanzania, Usambara Mts, NE Lushoto, Mkuzi forest reserve, at forest-/field-/pathmargin [„Wald-/Feld/Wegrand"], 8.IX.2003, leg. Barkemeyer (Bkm);
1 ♂. Tanzania, Pare Gebirge, Usangi, 5.VI.1952, leg. German East Africa Expedition ["D. O. Afrika Exp."] (SMNS);
1 ♂. Malawi, Zomba, 1 100 m, 24.-27.XI.1980, leg. Londt & Stuckenberg (NMSA);
2 ♂♂. Mozambique, Lourenco Marques, IV-VII.1914, leg. H.A. Junod (AMNH);
2 ♂♂. Swaziland, Ezulwini Valley, 4.VI.1991, leg. Lucas (ZMAN);
1 ♂. South Africa, KwaZulu-Natal, Howick, garden vegetation, 17.I.1993, leg. Whittington (NMSA);
1 ♂. South Africa, KwaZulu-Natal, St. Lucia Reserve, dune forest, 28.II.1988, leg. Londt (NMSA);
1 ♂. South Africa, Zululand, Dukuduku, 7.-8.IV.1960, leg. B. & P. Stuckenberg (NMSA);
1 ♂. South Africa, KwaZulu-Natal, Pietermaritzburg: Ferncliff Nat. Res., at gravel road ["an Piste"], 13.III.1999, leg. Barkemeyer (Bkm);
1 ♂. South Africa, Maputaland, 10 km E Mtubatuba: Monzi, Futululu forest, near Lake Futululu, 4.III.2000, leg. Barkemeyer (Bkm);

Distribution.
S. longiseta is known from West, Central, East and southern Africa. The most western record is from Liberia.

Habitat.
According to labels on the specimens and the personal experience of one of us (WB), this species prefers various wooded habitats near the coast at about sea level but also in mountainous areas.

Etymology.
The name refers to the extraordinarily long whitish posteroventral setae at the middle of hind femur.

Syritta lanipes Bezzi, 1921

Figs 131, 135, 136.

Syritta lanipes Bezzi, 1921: 11.

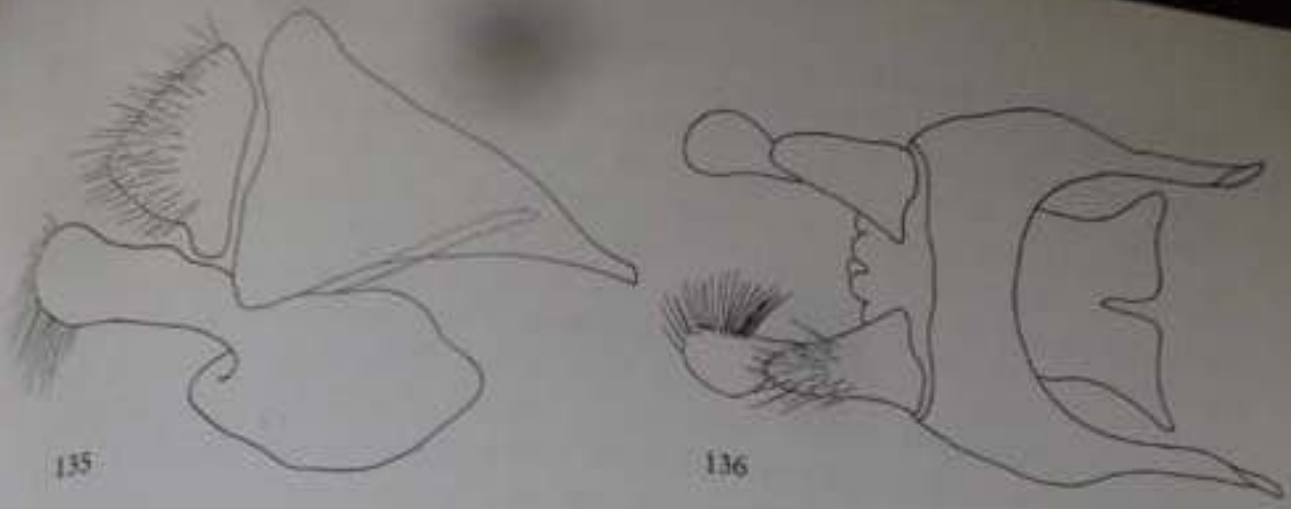
Syritta lanipes Bezzi seems to be a rare species. It was described from Tanzania without further information on locality; the type material was [probably] lost in 1956 in the Budapest Museum fire. We have examined a fine series of 6 males and 4 females collected at or near Entebbe (Uganda) and 3 males and 3 females originating from different localities in the eastern provinces of the former "Congo belge", now DR Congo. It is noteworthy that the two other species of the species-group, *S. longiseta* new species and *S. pilosa* new species, also occur in the Entebbe-Kampala region.

Diagnostic characters.
The male is best recognized by the pilosity on the posterior surface of the hind femur (fig. 131) which covers apical half of the tibia. Oral margin in both sexes projecting beyond frontal prominence, and apical part of wing with a uniform covering of remarkably long microtrichia.

Redescription – male.
Face markedly concave; tomentum a pale grey-yellow with a slight silvery shine. Oral margin distinctly projecting beyond frontal prominence. Eye contiguity c. 3.0. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 3.0/2.0; tomentum greyish with a brownish tinge and not sharply delimited from blackish upper part. Anterior ocellus separated from eye-margin by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital margin with small tomentose marks. Basoflagellomere yellow-brown; size c. 3.5 x 2.0; arista c. 5.0.

Lower katepisternum with ash-grey tomentum. Remaining parts of pleura, postpronotum, and a narrow lateral scutal vitta with a dark yellow-grey tomentum which has a distinctly reddish tinge. Marginal scutellar setae weak and blackish; one pair of black setae, about 50-80 µm long. Mesonotal pile blackish and very short.

Veins and spurious vein blackish and strong. Stigma brownish, and entire wing surface tinged brownish. Alula narrow, and wing as a whole narrow. Part of wing distal to cross-vein R-M with a uniform covering of remarkably large microtrichia.



135 136

Figures 135, 136. Epandrium with appendages of *Syritta lanipes* Bezzi, Uganda, 7 mi. N Entebbe. – 135: lateral view; 136: dorsal view.

Fore and mid legs yellow-brown. Hind femur markedly incrassate, dark brown to brown-black at base and on dorsal surface, paler brown ventrally except for apical third where darker brown. Ventrobasal profile line nearly straight.

Ventrobasal section of hind femur with an anteroventral row of 5 or 6 short thick setulae standing on hardly distinguishable tubercles; subbasally 3 or 4 additional similar setulae in a posteroventral position. In apical third of section and in a posteroventral position are 3 long white setae. Ventroapical section of hind femur with the usual ctinidium, which occupies one-third of total femoral length and contains c. 22 setulae. 3 or 4 posteroventral setae present before apex; they may be black or white.

Hind tibia (fig. 131) with a remarkable pile on posterior surface; in basal half rather few and moderately long setae, but from middle towards apex the pilosity increases in density and length; all setae are blackish. Colour brown, with pale yellow base and a pale yellow ring around middle.

Tergum 1 with a rectangular brown-black area on middle; anterolateral areas yellow with whitish tomentum. Tergum 2 pale yellow, with a narrow brown-black posterior fascia; anteriorly a triangular brown-black area, which connects to posterior fascia by a more or less well-marked median vitta and is often indistinctly demarcated. Tergum 3 only with a posterior fascia. Tergum 4 slightly wider than tergum 3, brown-black to black, with a wide posterior margin of yellowish integument. Anterolateral areas also yellowish, with only a slight tomentum, and reaching to middle of tergal margin. Sternum 4 with a deep V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 135): cercus higher than long. Dorsal lobe of surstylus a moderately long and almost equally wide rod which is broadly rounded apically and has a slight bump dorsally. Ventral lobe of surstylus broadly rounded posteriorly. Dorsal view (fig. 136): cercus triangular, rather narrowly rounded apically. Apex of dorsal surstylar lobe roundish, with long pilosity apically and medially. Surstylar apodemes fused, but with a slit anteriorly. Ejaculatory apodeme with a large hood.

Female.

Face with tomentum as described for male, and also with the same protruding oral

margin and marked concavity. Frons with a ratio between tomentose lower part and black upper part of c. 4.0/5.0; a pair of small tomentose areas on blackish part. Anterior ocellus separated from eye-margin by a distance shorter than width of ocellus. Basoflagellomere darker than in male. Other characters of head, thorax, wings and fore and mid legs as in male. Ventrobasal section of hind femur as in male, but black setulae more numerous and stronger, whereas the white setae around middle of the femur are weaker than in the male. Hind tibia on posterior surface with scattered blackish setae which are about one-third as long as tibial diameter. Tergum 2 wider than in male, yellow with a geometrically perfect hourglass-shaped blackish area; narrowest part of median vitta c. one-third of tergal width. Tergum 3 only yellow on about anterior third, slightly more laterally. Tergum 4 black with large yellowish anterolateral areas which are thinly whitish tomentose; also a narrow posterior rim of yellow integument.

Length: 7-8 mm.

Material examined.

Types formerly in the Budapest museum are probably lost.

1 ♂, 3 ♀♀. DR Congo ["Congo belge"], Parc National Garamba, 13.III.1952, leg. Miss. H. De Saeger 3234 (MRAC, 1 ♀: ZMUC);

1 ♂. DR Congo ["Congo belge"], Parc Nat. Albert, Sake (Kivu), 19.-22.II.1934, leg. G.F. de Witte (MRAC);

1 ♂. DR Congo ["Congo belge"], Parc National Upemba, Mabwe (lac Upemba), 585 m, 4.IX.1947, leg. G.F. de Witte, 734 a (MRAC);

1 ♂. Uganda, 7 ml. N. Entebbe, nr Lake Victoria, 1 135 m, 24.III.1972, leg. H. Falke (ZMUC);

1 ♂, 2 ♀♀. Uganda, Entebbe, 9.XI.1971, leg. H. Falke (CNC);

1 ♂. Uganda, Entebbe, 16.X.1971, leg. H. Falke (CNC);

1 ♂. Uganda, Entebbe, 30.XII.1971, leg. H. Falke (CNC);

1 ♂. Uganda, Entebbe, in forest, 11.II.1972, leg. H. Falke (CNC);

1 ♀. Uganda, Entebbe, 10.V.1972, leg. H. Falke (CNC).

1 ♀. Uganda, Entebbe, 24.V.1972, leg. H. Falke (CNC);

1 ♂. Uganda, Entebbe, 10.VI.1972, leg. H. Falke (CNC);

Distribution.

The distribution range covers the eastern provinces of DR Congo and Uganda, and the species can also be expected to occur in Tanzania.

Syritta pilosa new species

Figs 6, 13, 132, 137, 138.

Diagnostic characters.

The oral margin of *S. pilosa* new species is about level with frontal prominence as is also the case with *S. longiseta* new species. The fore and mid legs are pale. The hind femur is markedly incrassate, dark brown on dorsal surface and on ventral surface of apical third. The ctenidium occupies c. one-fourth of the femoral length. The wing

section distal to vein R-M has a rich provision with microtrichia. The complete covering by long setae on posterior surface of hind tibia distinguishes this species from the other two in the species-group.

Description – male.

Face slightly concave; its tomentum grey-yellow with a silvery shine. Oral margin about level with frontal prominence. Eye contiguity c. 3.5. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.0/1.5; tomentum greyish. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 50 µm. Upper occipital margin with small tomentose marks. Basoflagellomere rather dark yellowish red-brown; size c. 3.4 x 2.3; arista c. 5.5.

Tomentum of katepisternum and anterior part of anepisternum a pure ash-grey; of posterior part of anepisternum, postpronotum and lateral scutum to suture grey with a yellowish tinge. Marginal scutellar pilosity black; one pair of distinct setae; their length c. 50 µm. Mesonotal pile blackish, very short, and densely set on the black scutum and scutellum.

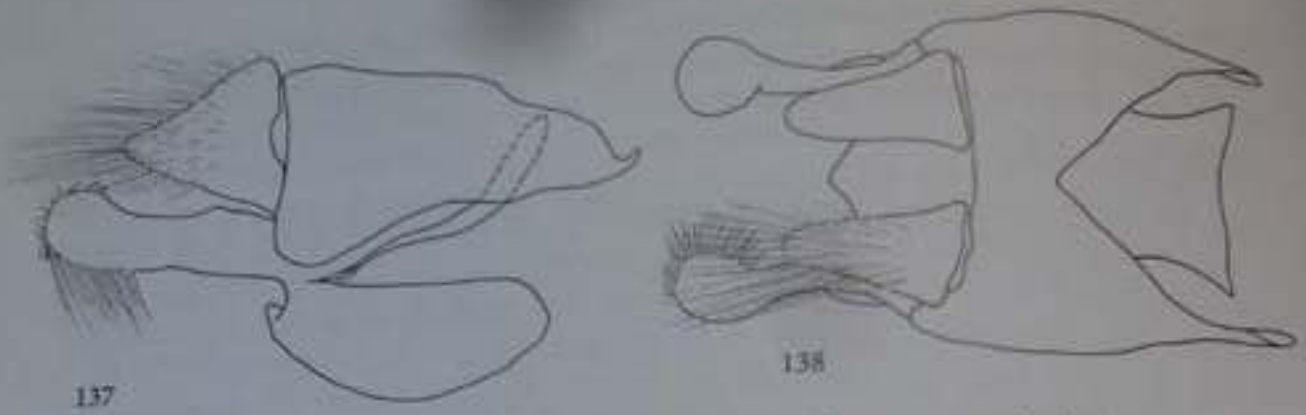
Veins and spurious vein brown-black, the latter appearing wider than the regular veins next to it. Stigma pale brownish. Alula (fig. 6) very narrow, c. 5 times as long as wide, and wing also narrow and tinged brownish. Entire wing surface distal to cross-vein R-M with a uniformly distributed cover by microtrichia.

Fore and mid legs pale yellow. Hind femur markedly incrassate, dark brown on dorsal surface and also on ventral surface of apical third, remaining parts pale brownish. Ventrobasal profile line slightly concave.

Ventrobasal section of hind femur with a very delicate armature which is composed of a regular anteroventral row of 7 minute setulae standing on very small tubercles; also a subbasal, posteroventral group of 5 similar setulae. Ctenidium short, occupying only about one-fourth of total femoral length, and consisting of c. 18 blunt setulae; anterior to these with 6 longer black setae. Posteroventral setae white, 3 in number, and with a couple of weaker setae at extreme apex. Also one very long white seta more basally; this seta is not arranged in line with the posteroventrals; sockets indicate that several such setae occur in perfect specimens, as in the other species of the group.

Hind tibia (fig. 132) in dorsal view slightly irregularly shaped; along posterior to postero-ventral surface with long pilosity. The setae in basal half black and of moderate length, but those of apical half whitish and up to twice as long as the basal setae; at dorsal apex also an appressed pile of fine black setae. In lateral view, the tibia is almost equally wide throughout, but with a low concavity around middle. Colour dark brown, with yellowish base and a yellowish ring at middle.

Tergum 1 (fig. 13) with a rectangular brown-black area; anterolateral corners yellow. Tergum 2 largely yellow, with a brown-black posterior fascia which laterally only occupies c. one-sixth of tergal length, but becomes wider toward mid-line and continues into a median vitta which gradually widens toward the narrow anterior fascia. Tergum 3 yellow with a posterior fascia similar to the one on tergum 2, and with only an indication of a brownish median vitta. Tergum 4 about as wide as tergum 3, mostly blackish and shining, and with yellow-brown anterolateral corners which do



137 138

Figures 137, 138. Epandrium with appendages of *Syritta pilosa* new species, holotype, Uganda. – 137: lateral view; 138: dorsal view.

not show any distinct tomentum; also with a wide posterior strip of yellow-brown integument. Sternum 4 with a deep V-shaped incision into posterior margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 137): cercus of moderate size compared to related species, subtriangular, with a wide "root" and a very long pale pile apically. Dorsal lobe of surstylus narrower than in related species, with a subbasal dorsal bump; apex rounded and provided with a number of long pale setae which are ventrally directed. Ventral lobe of surstylus very similar to that of *Syritta lanipes* (fig. 135) and *S. longiseta* (fig. 133). Dorsal view (fig. 138): cerci narrowly rounded apically, side-margins nearly straight. Apex of dorsal surstylar lobes with a dense pile on median surface. Surstylar apodemes fused for a long distance. Hood of ejaculatory apodeme appearing to be of about the same size as hood of aedeagal apodeme.

Female.
Unknown.

Length: c. 7 mm.

Material examined.
Holotype: ♂. Uganda, Kampala, 1930, H. Hargreaves. Pres. by Imp. Inst. Ent., Brit. Mus. 1931-480 [with attached puparium]. Identified as "*Syritta fasciata* Wd." by Sack (BMNH).

Distribution.
Uganda.

Etymology.
The name refers to the covering of elongate pilosity on posterior surface of hind tibia.

VII. The *hirta* species-group

We have placed in this species-group four Afrotropical species which share a synapomorphous character: in the male sex, the presence of a dense pale pilosity on the ventrobasal section of the hind femur; in the female sex, a weaker pilosity is present. Three of these species, viz., *Syritta hirta* Curran, *S. vockerothi* new species and *S. barbata* new species, undoubtedly form a monophyletic group.

The remarkable species, *S. decora* Walker from Mauritius and Réunion has been included in the species-group, not only because of the mentioned presence of this dense hind femoral pilosity but because it has an additional armature of combined sharp-tipped and blunt-tipped black setulae on the hind femur intermixed among the pale hair-like setae, as is found in *S. hirta*. However, the genitalia structures of *S. decora* (figs 147, 148) and its unique pleural pattern do not support the idea of a close relationship between *S. decora* and the other three species.

Syritta hirta Curran, 1939

Figs 14, 40, 82, 139, 140.

Syritta hirta Curran, 1939: 5.

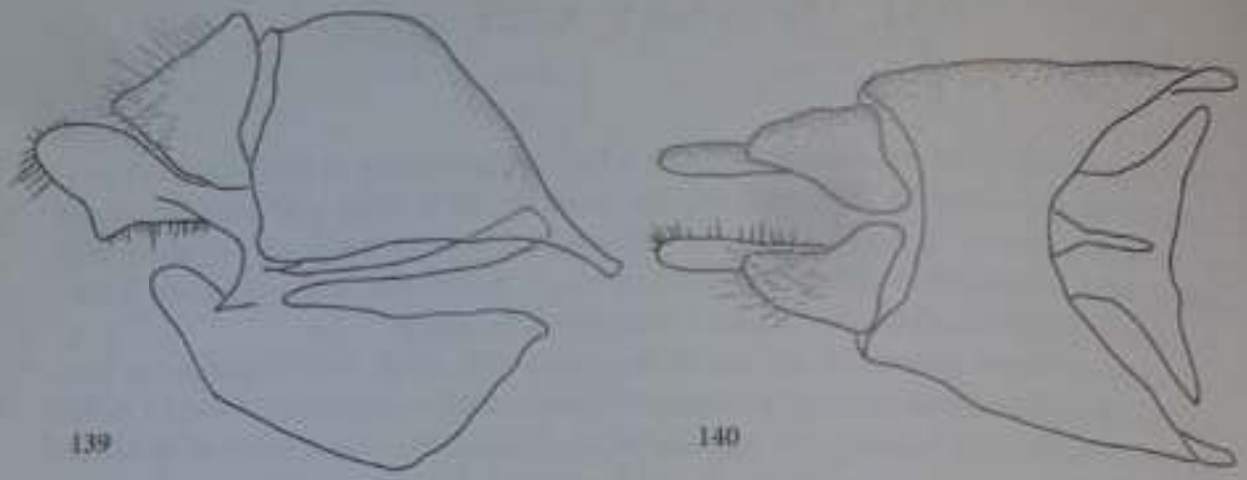
Syritta hirta Curran appears to be a rare and not easily recognised species as we have only been able to locate 11 males and 16 females in collections. The distribution ranges from Senegal in the west to the Kivu province of the former "Congo belge" in the east.

Diagnostic characters.
S. hirta is characterised by the dense pale pilosity on the ventrobasal surface of the hind femur; this pilosity is intermixed with black setulae which are blunt-tipped and short anteriorly and sharp-tipped and much longer posteriorly.

Redescription – male.
Face slightly concave, yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.0. Vertical triangle (fig. 40): ratio between tomentose lower part and blackish upper part c. 3.5/2.0; tomentum pure grey. Anterior ocellus separated from eye-margin by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere yellow-brown, with dorsal and apical margins blackened; size c. 2.6 x 1.9; arista c. 4.0.

Tomentum of katepisternum grey, of anepisternum, postpronotum and lateral scutum to suture yellow-grey, but anterior part of anepisternum may have a castaneous-brown or darker grey shine. Scutellum black; marginal setae short and dark; one pair of setae c. 60 µm long. Mesonotal pile pale.

Veins and spurious vein blackish, well-marked. Stigma dark brownish. Wing surface brownish tinged. Apical part of wing with a nearly complete covering of well developed microtrichia.



Figures 139, 140. Epandrium with appendages of *Syritta hirta* Curran, Senegal. – 139: lateral view; 140: dorsal view.

Fore and mid legs yellow-brown to red-brown. Hind femur markedly incrassate, usually dark brownish to black in basal half and apical one-fourth; mid section paler red-brown but not dorsally where it is dark brown. Ventrobasal profile line straight to slightly concave.

Ventrobasal section of hind femur with an anteroventral pilosity composed of numerous densely set, thin, white-yellow setae which are about as long as maximum tibial width. Similar setae, but fewer in number, on posteroventral surface. In ventral position an irregularly arranged row of 8 to 12 black setulae, none of them subbasal; 6 to 8 of the most posteriorly arranged rather long and sharply pointed, the anterior ones blunt-tipped and shorter. Ventroapical section of hind femur with the usual armature, and with additional thin white setae similar to those in the ventrobasal section. Number of posteroventral apical setae of hind femur often as high as 5 or 6.

Hind tibia gradually tapering from one-third before apex towards apex, with the usual anteroventral carina; colour dark brown, with a paler ring around middle, and also pale at base.

Tergum 1 (fig. 14) largely blackish, only slightly paler in anterolateral corners. Tergum 2 yellow with a blackish posterior fascia and a blackish median vitta of c. one-fourth of tergal width where most narrow; the vitta widening towards anterior margin where in some specimens an anterior fascia is formed. Tergum 3 yellow with brown-black posterior fascia and a median vitta. Tergum 4 black, narrowly brownish along posterior margin. Anterolateral areas of grey tomentum small, continuing as a narrow strip along side-margin. Sternum 4 with a wide V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig.139): cercus high compared to length, with a "root". Dorsal lobe of surstylus short, wide, shafted, and with a tooth-like drooping lobe ventrally. Pilosity occurs at apex and in basal part. Ventral lobe of surstylus large, broadly projecting posteriorly. Dorsal view (fig. 140): the short cerci are markedly wide at base, and the dorsal surstylar lobes with a narrow, almost parallel-sided apical part. Surstylar apodemes strongly outwardly curved and fused for a short distance anteriorly. Ejaculatory apodeme with a very large hood.

Female.
This sex can, as in the male, at once be recognised by the unique setation of the ventrobasal section of hind femur: a group of 8 to 12 black setulae, the anterior ones short and blunt-tipped and the posterior ones sharp-tipped and 3-4 times longer. The pale ventral pilosity of hind femur is much shorter than in the male. Additional characteristics are the extensively black frontal stripe with a more or less distinctly non-tomentose area on lower part (fig. 82), and the wide and parallel-sided abdomen which is predominantly black, except for narrow lateral margins on tergum 2 which may be yellowish or greyish, and for grey tomentose anterolateral corners of terga 3 and 4.

Length: 7-8 mm.

Material examined.

Type material.

Holotype. ♂. Liberia, Monrovia [no date, no collector], labelled "*Syritta hirta* Curran" (AMNH) [well preserved].

Additional material.

2 ♂♂. Senegal, 15 km SW Ziguinchor, 3.III.1985, leg. Barkemeyer (Bkm & ZMUC);
2 ♂♂, 1 ♀. Nigeria, 69-153, [date:] ?, leg. John Medler (USNM);
1 ♂. Nigeria, Olokomeji, [date:] ?, leg. Bridwell (USNM);
1 ♀. Cameroon, Ossidninge, [date:] ?, leg. Pomeroy (USNM);
1 ♀. Cameroon, Douala, 7.VII.1974, leg. Lucas (ZMUC);
1 ♂. Cameroon, Kribi, 11.VII. 1974, leg. Lucas (ZMUC);
1 ♀. Cameroon, Yaounde, 13.VII. 1975, leg. Lucas (ZMAN);
1 ♀. DR Congo ["Congo belge"], Bokape, (Likimi), 11.VIII.1912, leg. A. Collart (MRAC);
3 ♀♀. DR Congo, Congo da Lemba, I.-IV.1913, leg. R. Mayné (MRAC);
1 ♀. DR Congo ["Congo belge"], Maynumbe, 1917, leg. R. Mayné (MRAC);
1 ♂. DR Congo ["Congo belge"], Mayumbe, Kikongo, 9.VIII. 1926, leg. A. Collart (MRAC);
1 ♂. DR Congo ["Congo belge"], Likimi, 18.VIII. 1922, leg. A. Collart (MRAC);
1 ♀. DR Congo ["Congo belge"], Banzyville, 13.IX.1926, leg. ? (RMNH);
1 ♀. DR Congo ["Congo belge"], Sankuru , Komi, 15.III.1930, leg. J. Ghesquière (MRAC);
2 ♂♂. DR Congo ["Congo belge"], Eala, X.1935, leg. Ghesquière (RMNH);
1 ♀. DR Congo ["Congo belge"], (Stan. [= Stanleyville = Kinshasa]), Bafwasende, XI.1945, leg. J. Francois (MRAC);
1 ♀. DR Congo ["Congo belge"], Batama, 3.III.1946, leg. Francois (ZMUC);
1 ♀. DR Congo ["Congo belge"], Basankusu, 1949, leg. Zusters (MRAC);
1 ♀. DR Congo ["Congo belge"], Nouv.-Anvers, 9.XII.52, leg. P. Basilewsky (MRAC);
1 ♀. DR Congo ["Zaire"], N. Kivu, Mbau, 920 m, 8.-21.XII.1971, leg. Falke (CNC).

Distribution.

The distribution of *S. hirta* ranges from Senegal in the northwest to DR Congo in central Africa.

Habitat.
One of us (WB) was able to collect *S. hirta* in different open and wooded habitats, including biotopes in major cities such as Dakar (Senegal) and Yaoundé (Cameroon).

Syritta vockerothi new species

Figs 141, 143, 144.

For a long time we knew only of one male of this species from "Congo belge", which we could distinguish from *Syritta hirta* Curran by the lack of long, sharp-tipped setae on the ventrobasal surface of hind femur. It was therefore satisfying to find a perfectly preserved pair collected at Entebbe in Uganda by H. Falke in material from the Canadian National Collection.

Diagnostic characters.
S. vockerothi has a markedly incrassate hind femur that is yellow in its basal one-third. Furthermore, this species is distinguished by the dense pale pilosity on the ventrobasal surface of the hind femur; this pilosity is intermixed with 5 or 6 blunt-tipped black setulae situated on minute tubercles. The cerci are blunt-tipped. The dorsal lobe of surstylus is almost egg-shaped.

Description – male.
Face, frons, occiput, and facets as described for *Syritta hirta*. Basoflagellomere larger: in holotype 3.4 x 2.2; arista 5.0.

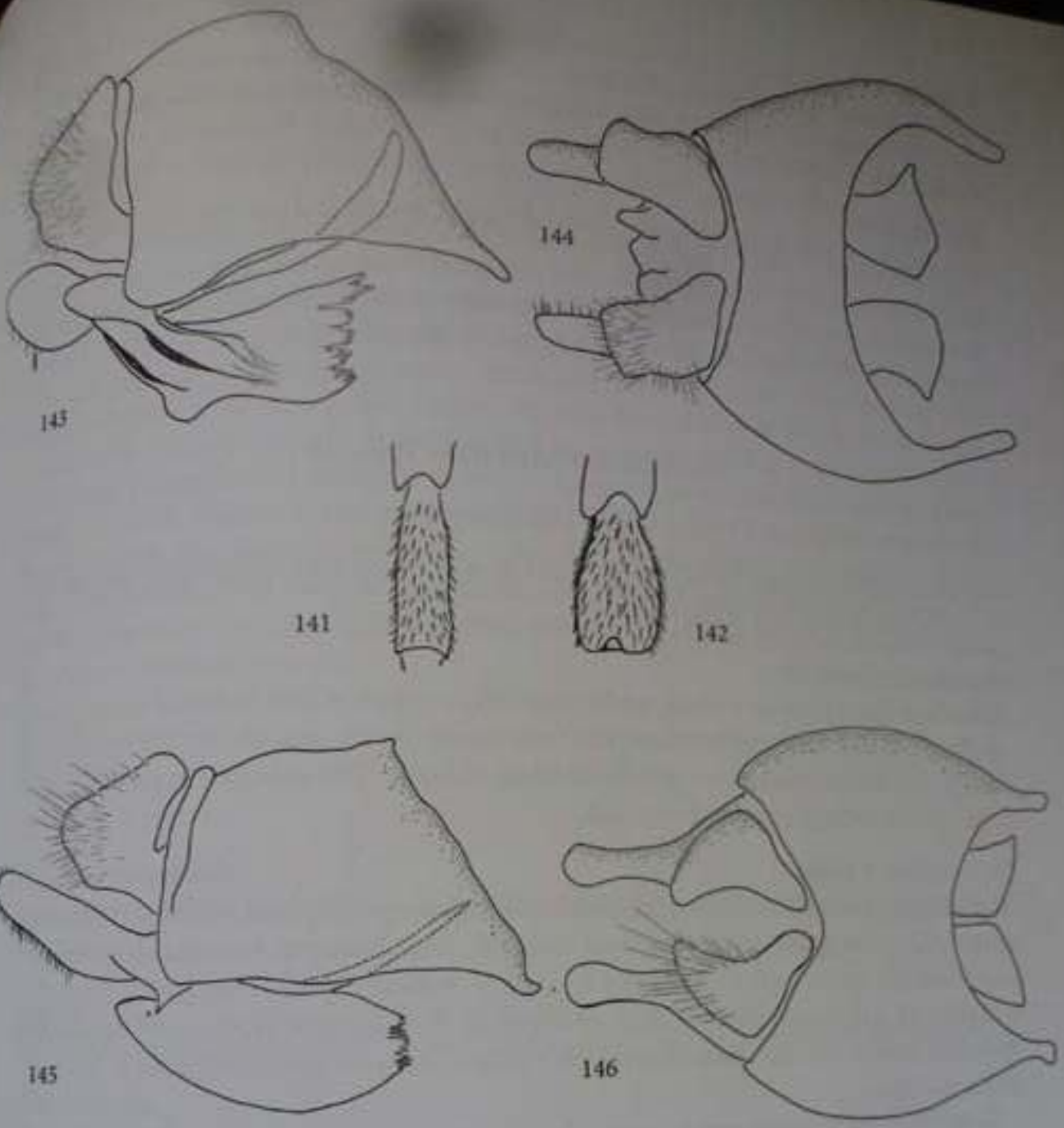
Thorax as described for *S. hirta*, but the pair of scutellar setae being even shorter, only about 40 µm long. Mesonotal pile very short and blackish.

Wing with the same uniform covering of well-developed microtrichia in the apical part as in *S. hirta*. Wing surface brownish and stigma dark brown.

Fore and mid legs yellow-brown, tarsomeres (fig. 141) of fore leg of normal shape (see *S. barbata* n. sp.). Hind femur markedly incrassate, yellow in basal third, brown-black in apical two-thirds. Profile line of ventrobasal section slightly concave.

Ventrobasal section of the hind femur with pale ventral pilosity as in *S. hirta*, but the thin setae more sparse and longer than in *S. hirta*, especially posteroventrally. The subapical part of the section with an irregular group of 5 to 7 small blunt-tipped setulae; the sharp-pointed longer setae found in *S. hirta* being absent. The femur with 5 posteroventral setae before apex. Hind tibia as in *S. hirta*. The abdominal pattern agreeing with that of *S. hirta*.

Genitalia. Markedly different from those of *S. hirta*. Lateral view of epandrium and its appendages (fig. 143): cercus remarkably high compared to length, with very broadly rounded apical margin. Dorsal lobe of surstylus approximately egg-shaped, arranged on a short stalk; pile on median surface very sparse and short. Ventral lobe of surstylus with a restricted dorso-ventral extension, a posterior process, a couple of laminae, and a ventral lobe. Dorsal view (fig. 144): cerci appearing truncate posteriorly, and the sparse pile of the dorsal surstylar lobes apparent. Surstylar apodemes separate.



Figures 141, 142. Male fore basotarsomeres of 141: *Syritta vockerothi* new species and 142: *S. barbata* new species.
Figures 143, 144. Epandrium with appendages of *Syritta vockerothi* new species, paratype, DR Congo, Parc National de la Garamba. – 143: lateral view; 144: dorsal view.
Figures 145, 146. Epandrium with appendages of *Syritta barbata* new species, paratype, DR Congo, Kivu, Ibanda. – 145: lateral view; 146: dorsal view.

Female.
Similar to the female of *S. hirta* from which it can be separated by the lack of sharp-pointed setulae on the ventrobasal section of hind femur.

Length: c. 7 mm.

Material examined.
Holotype: ♂. Uganda, Entebbe, 13.VI.1972, in forest, leg. H. Falke (CNC).

Paratypes:
1 ♀. Same data as holotype (CNC).
1 ♂. DR Congo ["Congo belge"], Parc National Garamba, Aka, 15.V.1952; leg. H. De Saeger 3463 (MRAC).

Distribution.
The species is only known from Central Africa (Uganda and eastern DR Congo).

Etymology.
The species is dedicated to Dr. J. R. Vockeroth (Ottawa, Canada) in recognition of his major contributions to the knowledge of the Syrphidae.

Syritta barbata new species

Figs 142, 145, 146.

We have only been able to locate two male specimens of this remarkable species, one from Tanzania and one from Kivu.

Diagnostic characters.
S. barbata has a pilosity of long white setae on the apex of fore and mid coxae, on all trochanters, and on metasternum. The tarsomeres of fore and mid leg are broadened, with a nail-like elevation at middle of distal margin. The surstylus is clearly longer than cercus, arranged on a short stalk.

Description – male.
Face slightly concave, yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 2.5. Vertical triangle: ratio between tomentose lower part and blackish upper part in holotype c. 4.0/1.5. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere yellow-brown; size in holotype c. 2.6 x 2.2; arista c. 4.0.

Tomentum of katepisternum grey, of anepisternum lilac-grey posteriorly, whereas anterior part of anepisternum dark grey and only slightly tomentose. Postpronotum and lateral scutal vitta yellow-grey tomentose. Scutellum remarkably short, with a marginal pile of rather long (c. 100 µm) pale brown setae; no black subapical setae apparent.

Veins and spurious vein blackish, well marked. Stigma large, brown-black. Apical parts of the R-cells with a distinct covering by microtrichia, but basal parts of the same cells and the whole cell DM with sparse and punctiform microtrichia.

Fore and mid legs yellow-brown. Tarsomeres 1 to 3 of fore and mid legs (fig. 142) broadened and with a characteristic dorsal mini-nail at middle of anterior margin. A long bushy pilosity composed of soft, whitish setae present on the following structures: apex of mid and hind coxae, all trochanters, and metasternum. Hind femur moderately incrassate; colour light leather-brown. Ventral profile line straight.

Ventrobasal section of hind femur occupying two-thirds of femoral length and with a densely-set pile of long whitish setae on entire posteroventral surface. This

pile also present on a narrow strip on anteroventral surface, where 2 to 4 microsetulae are visible near apex of section. Ventroapical section of hind femur with the usual armature: 4 or 5 posteroventral setae before apex of femur.

Hind tibia unmodified except for the anteroventral carina; it appears wider apically than in most species. Colour light leather-brown, with indistinctly marked paler ring.

Abdomen narrow, narrowest at middle of segment 3. Tergum 1 brownish-black with a tinge of greyish tomentum. Tergum 2 yellow with a narrow hourglass-shaped brown-black area. Tergum 3 yellow with brown-black posterior fascia and a vitta to anterior margin. Tergum 4 wider than tergum 3, shiny black, brownish along posterior margin, and with large tomentose areas anterolaterally; the tomentum continuing as a narrow strip to posterior corner. Sternum 4 with a wide V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 145): cercus higher than long. Dorsal lobe of surstylus markedly longer than cercus, arranged on a short stalk, and with slightly convergent margins. Ventral lobe of surstylus oval, with a moderate, simple posterior projection. Dorsal view (fig. 146): cerci with a remarkably deep concavity of median margin, and narrowly rounded at apex. Dorsal surstylar lobes slightly dilated apically; their pilosity short and present on both sides. Surstylar apodemes separate.

Female.
Unknown.

Length: c. 8 mm.

Material examined.
Holotype: ♂. DR Congo ["Tanganyika T"], Tshibinda, 21-27.VIII.1931, leg. J. Ogilvie (BMNH).

Paratype:
1 ♂. DR Congo ["Congo belge"], Kivu, Ibanda, 1952, leg. M. Vandelannoite (MRAC).

Distribution.
Central Africa.

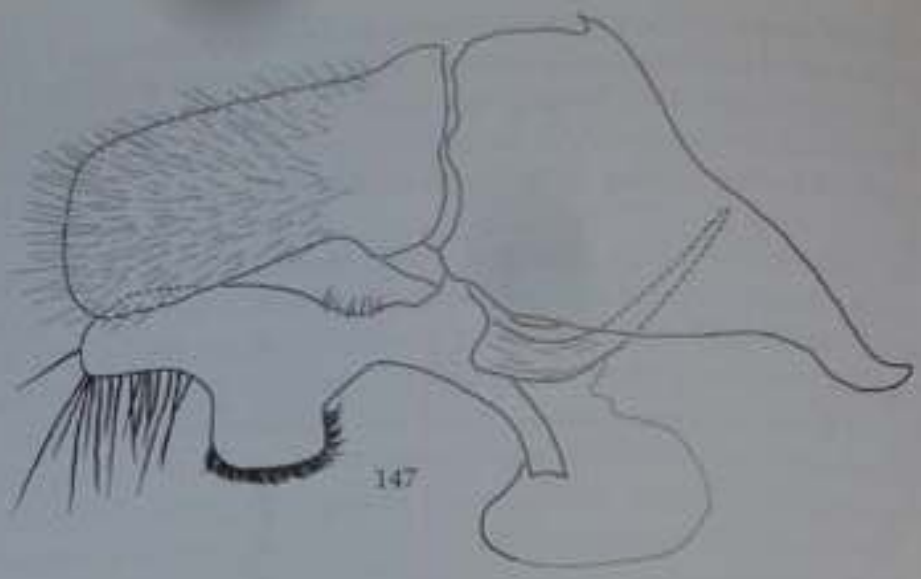
Etymology.
The name refers to the elongate pilosity on the apex of mid and hind coxae, all the trochanters and metasternum.

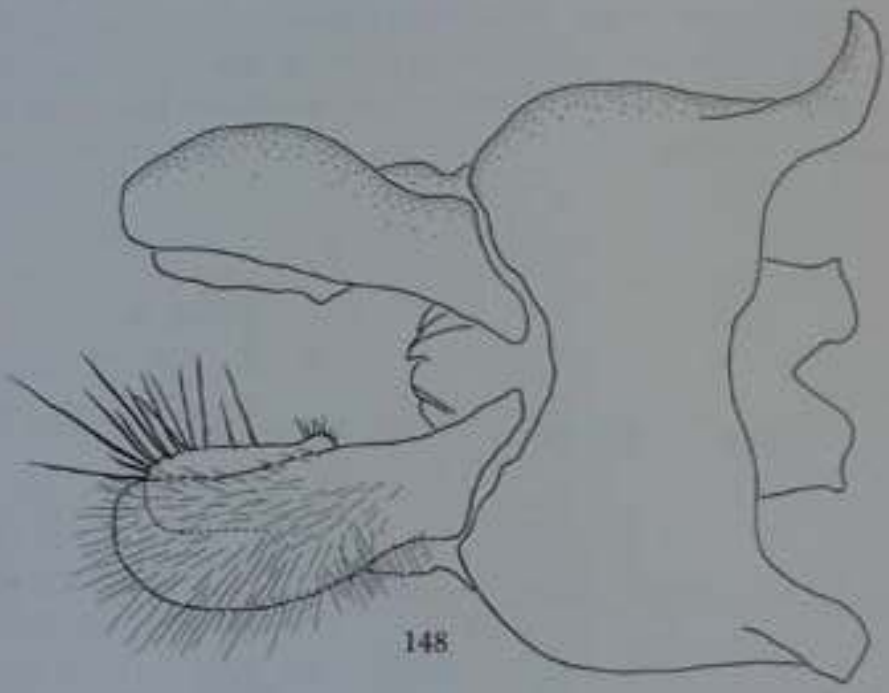
Syritta decora Walker, 1849

Figs 147, 148.

Syritta decora Walker, 1849: 553.

S. decora is one of several *Syritta* species which are restricted to islands, in this case to Mauritius and Réunion in the Indian Ocean off the east coast of continental Africa. This species is a rare and handsome fly which may be restricted to higher altitudes with shrubs and trees (see material).





Figures 147, 148. Epandrium with appendages of *Syritta decora* Walker, Mauritius, Le Pouce Mt. – 147: lateral view; 148: dorsal view.

Diagnostic characters.
The thoracic pleura of *S. decora* has a unique pattern of vertical black and grey-yellow tomentose stripes. Scutum with tomentose and black areas. Ventrobasal section of hind femur with a dense pilosity of fine whitish setae on anterior surface and with 5 or 6 short black setulae in apical part of this section. Male genitalia distinctive.

Redescription – male.
Face sligthly concave, with a golden-grey tomentum. Oral margin less projecting than frontal prominence. Eye contiguity c. 4.0. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 4.0/2.0; tomentum dark brownish. Anterior ocellus separated from eye-margins by a distance shorter than width of

ocellus. Largest facets c. 50 µm. Upper occipital margin blackish, without tomentose marks. Basoflagellomere orange-brown; size c. 4.0 x 3.2; arista 7.0.

Thorax pattern remarkable: anterior part of katepisternum and katepimeron deep black, forming a vertical band which also includes part of lateral scutum posterior to postpronotum. Posterior to this black band with another vertical band of the same width which includes posterior parts of katepisternum and katepimeron, as well as anterior anepimeron and part of lateral scutum to suture, and is covered by a thick grey-yellow tomentum. Postpronotum similarly tomentose. Anterior scutum with a thinner and more pure grey tomentum. Scutum also with a yellow-grey tomentose posterior fascia from side to side, including the postalar calli; width of this fascia c. one-third of scutellum length. Scutellum black, with 2 pairs of long subapical setae; length of the longest of these setae c. 380 µm, equalling half of scutellum length. Mesonotal pile black on black areas, whitish on tomentose areas.

Regular veins and spurious vein coarse, blackish. Stigma brownish, and entire wing with a slight brownish tinge. Apical part of wing with a dense covering of microtrichia, except for the following bare areas: basoposterior strip in cell R2+3, basoanterior strip in cell R4+5, and posterior strip in cell DM.

Fore and mid legs yellowish brown, but extreme base of femora brown-black. Hind femur moderately incrassate, ventrobasal section twice as long as ventroapical, and moderately concave. Colour uniformly black.

Ventrobasal section of hind femur dominated by a dense covering of fine whitish setae on entire anterior surface; the length of these setae equalling tibial width; also 5 or 6 short black setulae in apical part of this section, but difficult to discern because of the dense pilosity; both sharp-tipped and blunt-tipped setulae present. Ventroapical section of hind femur with the usual armature, including 4 black posteroventral setae before apex.

Hind tibia of the same diameter throughout; colour dark leather-brown, with well-marked yellow-brown ring at middle and also yellow-brown at base.

The abdomen is discoloured in the only male specimen available, appearing dark greasy. However, the ground pattern can be indicated. Tergum 1 blackish with extreme lateral parts yellowish. Tergum 2 with large hourglass-shaped black area, leaving only antero-lateral areas yellow, each c. one-fourth of tergal width. Tergum 3 with a similar pattern, but median vitta not wider towards anterior margin. Tergum 4 nearly parallel-sided, as wide as tergum 3, black with very narrow brown posterior margin, and anteriorly with transverse bars of tomentum that do not spread along side-margin towards posterior corner. Sternum 4 with a broadly V-shaped incision in posterior margin, and an additional semicircular incurvation of median one-third of margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 147): the enormous cercus is almost parallel-sided and with a pile of very fine setae. Dorsal surstylar lobe about as long as cercus, composed of an apical and a ventral section, the former with long strong setae on the median surface, the latter with a dense ventral cover of short curved setae. Ventral surstylar lobe placed on a curved, well-sclerotized rod, the rest being small and weakly sclerotized. Dorsal view (fig. 148): cerci with an evenly convex lateral margin and a slightly undulating median margin. Median apex of dorsal surstylar lobes with its long pilosity visible. Surstylar apodemes fused. Ejaculatory apodeme with a large hood.

Female.
Face as in male. Frons at its narrowest c. 2 times as wide as width of anterior ocellus; largely grey-yellow tomentose with a beehive-shaped brown-black callus below and brown-black coloured in front of anterior ocellus, and a similar dark colour also present along eye-margins for some distance. Thoracic pattern as in male. Scutellum with 3 pairs of strong setae. Fore and mid femora not totally yellow-brown as in male, but dark brown in about basal seventh. Hind femur shaped as in male, but with a paler colour: dark leather-brown; its ventrobasal surface with scattered short pale setae and an armature of 10 to 12 setulae which include both sharp-tipped and blunt-tipped setulae. Posterior fascia of tergum 2 parallel-sided, brown-black and occupying c. three-sevenths of tergal length; a median vitta of c. one third of tergal width at posterior fascia gradually widens towards anterior margin. Tergum 3 brown-black with yellowish anterolateral areas which occupy c. one-third of the tergum in both dimensions. Tergum 4 blackish with narrow yellowish transverse bars anterolaterally; also with a posterior strip of yellowish integument.

Length: c. 10 mm.

Material examined.
Type material.
Holotype: ♀. Without label (BMNH).

Additional material.
1 ♂. Mauritius, Le Pouce Mtn., 30.XI.1962, leg. C. M. Courois (NMSA);
1 ♀. Mauritius, Macabe Forest, 29.II.1969, leg. J. W. Boyes (CNC).

Kassebeer (2000: 63) records one ♂ and one ♀ of this species from Réunion: Forêt de Notre-Dame de Paix, 1 600 m, 3.III.1999, and one ♀ from Forêt de Bébour, Col de Bébour, 1 200 m, 5.III.1999.

VIII. The *indica* species-group

We have assigned four species to a *S. indica* species-group, although this cannot be safely motivated as monophyletic. Its included species share the following symplesiomorphies: spurious vein well sclerotised; hind femur without a subbasal posteroventral spina, but with a number of setula-bearing tubercles and whitish setae; hind tibia unmodified, i. e. without a lamina on or excavation into the ventral surface. Two of the included species, *S. indica* (Wiedemann) and *S. proximata* new species, are strictly Oriental in their distribution, whereas *S. polita* new species and *S. noona* new species both originate in the SW Pacific area. In the male sex, the four species are easily separated on external as well as on male genitalic characters.

Syritta indica (Wiedemann, 1824)

Figs 59, 60, 86, 149, 150.

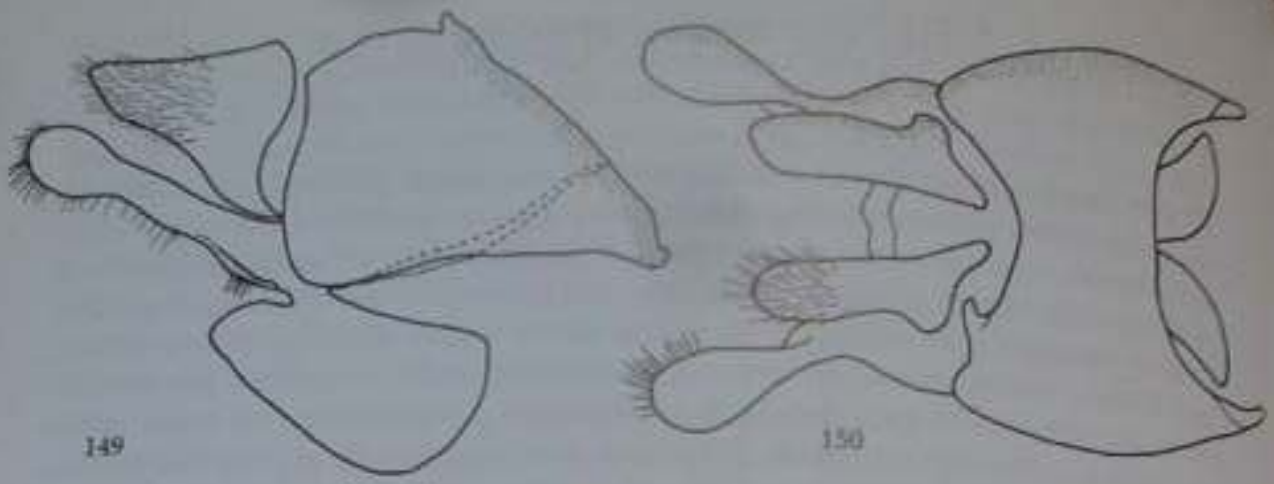
Eumerus indicus Wiedemann, 1824: 33.
Syritta rufifacies Bigot, 1883: 538.
Syritta femorata Sack, 1913: 8.

There are six species of *Syritta* in India. Three of these form a natural unit and are members of the *pipiens* species-group; they are *S. pipiens* (Linnaeus), *S. fasciata* (Wiedemann) and *S. stylata* new species. They can be distinguished from the other three Indian species, which are *S. indica* (Wiedemann), *S. proximata* new species and *S. orientalis* Macquart, by the very thin to obsolete spurious vein and by the presence of a distinct blackish median vitta on tergum 2. The genitalia of *S. pipiens* and related species are characterised by an elongate dorsal surstylar lobe and a small posterior hook on the ventral surstylar lobe (see figures).

The other "group" of three species, and including *S. indica*, is not natural, but *S. indica* and *S. proximata* may be sister-species, whereas *S. orientalis* forms an isolated group of its own.

Diagnostic characters.
S. indica is easily distinguished from *S. proximata*, as the profile of the terminal abdominal segments is different (figs 60, 61), in *S. indica* with a hump on tergum 4 located at one-sixth of tergal length from the posterior margin, and a continuous brown posterior fascia on tergum 4. The genitalia (figs 149, 150) are very different from those of *S. proximata*. On the female frons (fig. 86), the eye margins diverge from level of anterior ocellus. Hind femur without a subbasal posteroventral spina as in *S. orientalis*, and tergum 2 without a distinct blackish median vitta on tergum 2; such a vitta is present in *S. orientalis*.

Redescription – male.
Face slightly concave, yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity 3.0-3.5. Vertical triangle (fig. 59): ratio between tomentose



Figures 149, 150. Epandrium with appendages of *Syritta indica* (Wiedemann), lectotype, "India or." – 149: lateral view; 150: dorsal view.

lower part and blackish upper part is 3.5/1.5. Distance between eye-margins and anterior ocellus shorter than width of ocellus. Largest facets c. 40 µm. Upper occiput with distinct marks. Basoflagellomere yellow; size c. 3.0 x 2.0; arista c. 4.0.

Tomentum of katepisternum pure grey, of other pleura and of postpronotum and lateral scutum to suture a rather dark yellow-grey. Scutellum with a pair of minute black setae, c. 50 µm long. Mesonotal pile pale.

Veins and spurious vein well-marked, dark brown. Stigma yellow-brown. Apical part of wing with a poor provision of minute microtrichia; they are best observed in area between marginal veins and posterior wing margin, and in apical parts of the R-cells.

Fore and mid legs yellow to yellow-brown. Hind femur moderately incrassate. The colour of hind femur variable. In the syntypes and other Indian specimens, the pattern is very similar to that of *S. proximata* new species, i.e. pale brown ventrally in about basal two-thirds, dark leather-brown in apical third as well as on dorsal surface of basal two-thirds. Taiwan specimens agreeing with this description can be found, but the majority of specimens available has a darker hind femur which may be nearly totally brown-black. Ventrobasal profile line straight.

Ventrobasal section of hind femur with 7 to 10 irregularly arranged tubercles, each provided with a blunt, black setula. Also a few long, thin whitish setae on posteroventral surface, and some shorter ones anteroventrally. Ventroapical section of hind femur with the usual armature.

Hind tibia with an anteroventral carina, otherwise unmodified. Colour dark leather-brown, with a pale brown base and a pale brown ring at middle.

Tergum 1 with large brown-black area on middle; anterolateral areas yellow with whitish tomentum. Tergum 2 yellow, with narrow brown-black anterior fascia and a wider brown-black posterior fascia; a median vitta may be indicated. Tergum 3 yellow with a brown-black posterior fascia. Tergum 4 wider than tergum 3, shining black with rather large anterolateral areas of tomentum that also continue along entire side-margin. Seen in profile (fig. 60) tergum 4 has a hump c. one-sixth of tergal length from posterior margin, which has a continuous strip of brownish integument. Sternum 4 with a simple V-shaped incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 149): cercus subtriangular, rather pointed posteriorly. Dorsal lobe of surstylus long and narrow, spatulate towards apex where some black ventral setae can be seen. Remarkable is also a dense group of black setae at base. Ventral lobe of surstylus broadly projecting posteriorly. Dorsal view (fig. 150): cerci with concave sidemargins, rounded apically. Dorsal surstylar lobes spatulate. Surstylar apodemes separate. Ejaculatory apodeme with large hood.

Female.
Face as in male. Frons (fig. 86) with a ratio between tomentose lower part and blackish upper part of c. 5.0/4.5, tomentum pure greyish; blackish upper part with a pair of pale grey tomentose areas that often merge to form a band. Distance from eye-margins to anterior ocellus shorter than, or equal to, width of ocellus; eye-margins diverge from anterior ocellus and downwards. Thorax, wings and legs as described for male, and hind femur generally being darker coloured than in *S. proximata* where always clearly bicoloured. Abdomen patterned as in male, but wider. Tergum 4 black with triangular tomentose anterolateral areas and a strip of tomentum along side-margins to posterior corner; also a strip of yellowish integument along posterior margin.

Length: 7-8 mm.

Material examined.
Type material.
Eumerus indicus Wiedemann, 1824.
Syntypes: 2 ♂♂, 1 ♀. "India or." (ZMUC).

Syritta rufifacies Bigot, 1883.
Holotype: ♂. "India / Pondicherry" / In the Bigot collection (BMNH).

Syritta femorata Sack, 1913.
Syntypes: 2 ♂♂, 1 ♀. "Formosa / Tainan / II.[19]09 / H. Sauter" (DEI & SMF).

Distribution.
S. indica is found in China, India, Nepal, the Philippines, Sri Lanka, Taiwan, and Vietnam. Sympatric occurrence with *S. proximata* new species has been documented in Coimbatore, in Walayar Forest in Kerala State, and at Karikal in Pondich State; all in South India.

Syritta proximata new species

Figs 61, 85, 151, 152.

It was surprising to find that there was no name available for this remarkable and, in India, widely distributed species. It was present in collections under the names of *S. orientalis* Macquart or *S. rufifacies* Bigot. The same names were often seen used for *S. indica* (Wiedemann). *S. proximata* seems to be restricted to India and Sri Lanka.

151 152

Figures 151, 152. Epandrium with appendages of *Syritta proximata* new species, paratype, India, Coimbatore Dist. – 151: lateral view; 152: dorsal view.

Diagnostic characters.
The male of *S. proximata* is distinguished by the profile line of the terminal abdominal segments (fig. 61), tergum 4 having a blackish hump on extreme posterior margin and separating the brown posterior fascia into two sections. The genitalia (figs 151, 152) are distinctive and very different from those of the sympatric *S. indica* (Wiedemann). The female frons (fig. 85) with eye margins diverging only on lower two-thirds. As in *S. indica* both sexes have at most an indication of a blackish vitta on tergum 2. Hind femur without a subbasal posteroventral spina.

Description – male.
Face slightly concave, yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.5. Vertical triangle very similar to that of *S. indica* (fig. 59), with a ratio between tomentose lower part to blackish upper part of c. 4.0/1.0. Distance between eye-margins and anterior ocellus shorter than width of ocellus. Largest facets c. 50 µm, i.e. markedly larger than in *S. indica*. Upper occiput with distinct tomentose marks. Basoflagellomere yellow; size c. 3.1 x 2.2; arista c. 3.5.

Tomentum of pleura, postpronotum and lateral scutum to suture uniformly yellow-grey. Scutellum black, with a pair of minute subapical setae, c. 80 to 100 µm long. Mesonotal pile pale.

Veins and spurious vein brown-black, well marked. Stigma pale brownish. Wing surface hyaline. Apical part of wing with sparsely distributed punctiform microtrichia; these mainly seen in apical parts of cells R1 and R2+3, and in area between marginal veins and posterior wing margin.

Fore and mid legs yellowish-brown. Hind femur moderately incrassate, with a straight ventrobasal profile line; bicoloured with about basal two-thirds pale brown, whereas apical third is dark leather-brown; in about half of the specimens studied, the dorsal surface of the basal two-thirds also dark brown. Unicolorous hind femora, as occur in *S. indica*, have not been seen in this species.

Ventrobasal section of hind femur with 7 to 10 rather coarse tubercles arranged in a completely irregular ventral row; each tubercle with a coarse blunt-tipped black setula. Also with 2 to 4 thin white posteroventral setae, the longest of these situated around middle of femur; also anterolaterally with thin, white, but much shorter, se-

tae. Ventroapical section of hind femur with the usual armature, also including 4 posteroventral setae before apex.

Hind tibia with an anteroventral carina, otherwise unmodified. Colour dark leather-brown, yellowish at base, and with a red-brown ring around middle.

Tergum 1 with a large brown-black area on middle, covering posterior tongue-shaped area from side-margin to side-margin; anterolateral areas yellowish with grey-white or grey-brown tomentum. Terga 2 and 3 largely yellow or yellow-brown, with brown-black posterior fascia covering c. 1/4 of tergal length, both fasciae slightly triangularly pointed along midline, a median vitta may be indicated by a narrow pale brown shadow; tergum 2 may also possess a narrow anterior fascia. Tergum 4 slightly wider than tergum 3, black with a slight violet tinge; posterolateral margins broadly brownish, but mid-posterior margin black and raised to form a hump, thus rendering the lateral profile line (fig. 61) slightly concave. Anterolateral areas of grey tomentum continuing narrowly along side-margin for a distance. Sternum 4 with a clear-cut V-shaped incision into margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 151): cercus subtriangular; dorsal and ventral margins concave. Dorsal lobe of surstylus unique in shape: nearly equally wide throughout, apex broadly rounded, basal part slightly widening, forming a tooth-like ventral process; anteriorly straight-truncate and placed close to posterior part of subrectangular ventral surstylar lobe. Dorsal view (fig. 152): cerci short, rounded apically. The dorsal surstylar lobes reminiscent of the shells of a half-open bivalve and are often visible in undissected specimens. Pile hardly discernable as it is arranged on the median subapical surface; it is composed of short black setae ventrally and longer, pale setae dorsally. Surstylar apodemes fused anteriorly for some distance. Ejaculatory apodeme with a small hood.

Female.

Face as in male. Frons (fig. 85) similar to that of *S. indica* (Wiedemann) but tomentose lower part relatively shorter, ratio c. 4.0/4.5, and tomentose band on upper part closer to anterior ocellus. Frons with nearly parallel borders on upper third, and distance between eye-margins and anterior ocellus longer than width of ocellus. Thorax, wings and legs as described for the male. The abdomen agreeing with that of *S. indica*. Note: For separation from *S. indica*, see there.

Length: 6.5-8 mm.

Material examined.

Holotype: ♂. India, Karnataka, Bangalore, 916 m, 5.X.1980, leg. Ghorpade (USNM).

Paratypes:

1 ♂. India, Karnataka, Bangalore, 916 m, 30.IX.1980, leg. Ghorpade (USNM);
1 ♂. India, Nittapakkam, Pondicherry, X.1963, leg. Nathan (USNM);
1 ♂. India, Kerala, Maraiyur, 1066 m, 24.III.1977, leg. Ghorpade (USNM);
1 ♂. India, Andhra P., Fayndupalem, 24.VII.1975, leg. Prasad (USNM);
1 ♂. India, N.E., Delhi, XI.1966, leg. Jermyn (BMNH);
1 ♂. India, Calcutta, 28.XII.1968, leg. Joseph (CNC);
1 ♂. India, S, Yercaud ur Salem, 1500', 12.IV.1962, leg. Spencer (CNC);
2 ♂♂. India, S., Coimbatore, XII.1961, leg. Nathan (CNC);

1 ♂. India, S., Kerala, Walayar Forest, 200 m, X.1957, leg. Nathan (RMNH);
1 ♀. India, S., Kerala, Walayar Forest, 200 m, IX.1963, leg. Nathan (RMNH);
2 ♀♀. India S., Kerala, Walayar Forest, 200 m, VIII.1957, leg. Nathan (RMNH & ZMUC);
1 ♂. India, Rajasthan, Udsipur, Laksmi Village, 29.XI.1992, leg. Bakker (ZMAN);
1 ♂, 1 ♀. India, Karikal, Kurumbagarum, 23.I.1947, leg. Nathan (RMNH);
1 ♂. India, S. Malabar, 1000 ft, VIII.1951, leg. Nathan (RMNH);
1 ♂, 1 ♀. India, Central, Satpura Hills, Pachmarti, 3500 ft, IX.1970, leg. Nathan (ZMAN);
1 ♂. India, Madras State, Coimbatore, 1400 ft, XII.1968, leg. Nathan (ZMAN);
1 ♀. India, Madras State, Coimbatore, 1400 ft, 21.XII.1951, leg. Nathan (CNC);
1 ♀. India, S, Point Calimere, X.1971, leg. Nathan (ZMUC);
2 ♂♂.India, S Anamalai Hills, 3500 ft, IV.1956, leg. Nathan (RMNH & ZMUC);
1 ♂. India, Anamalai Hills, Chinchona, 3500 ft, IX.1969, leg. Nathan (ZMAN);
1 ♂. India, Coimbatore, XI.1969, leg. Nathan (ZMAN);
1 ♂. India, Pondich State, Karikal, I.1962, leg. Nathan ((RMNH);
1 ♂ India, Pondich State, Karikal, X.1956, leg. Nathan (RMNH);
1 ♂. India, NE, Calcutta, Victoria Memorial, 22.I.1969, leg. Joseph (CNC);
2 ♂♂. Sri Lanka, N.P. Mannar, 30.I.1954, leg. Keiser (CNC & SMNS);
1 ♂. Sri Lanka, Man., Silavathurai, Kondachchi, 23-27.I.1978, leg. Krombein et al. (USNM);
3 ♂♂. Sri Lanka, Jaf., Klinochchi, 80 ft, 24-27.I.1977, leg. Krombein et al. (USNM);
1 ♂. Sri Lanka, Mihintale, 20.II.1974, leg. Stubbs & Chandler (BMNH).

Distribution.
The range of *S. proximata* is restricted to India and Sri Lanka.

Etymology.
The name refers to the closely approximated dorsal and ventral surstylar lobes.

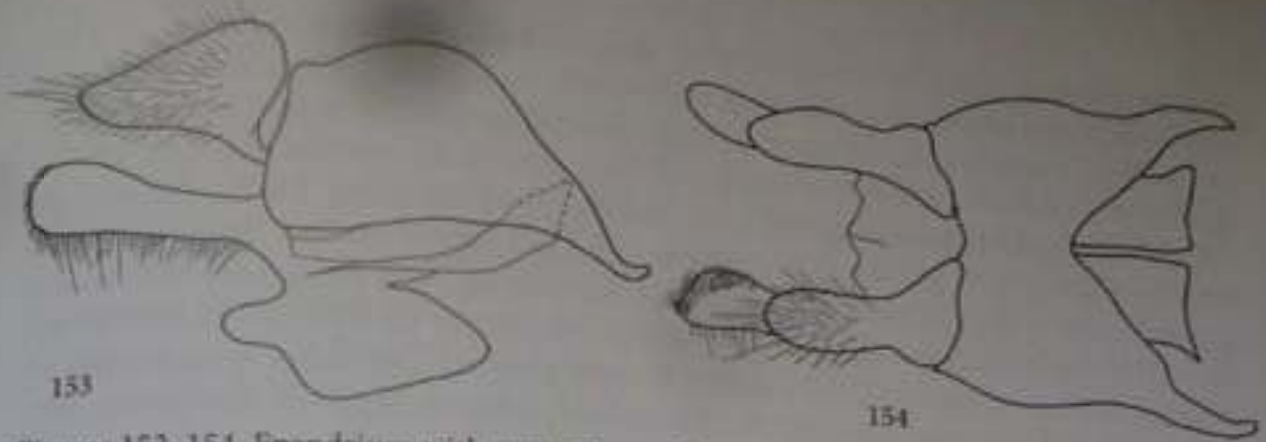
Syritta noona new species

Figs 153, 154.

The holotype of this remarkable species was collected by one of us (LL) when joining the Danish Noona Dan Expedition 1961-62 to the western Pacific area. About three weeks were spent in and around the village of Lemkamin at a height of c. 1,000 m in the central part of New Ireland. Since only one specimen of *S. noona* new species was collected, it can be concluded that it is a rare fly.

The species shows relationships with *S. polita* new species from New Britain, possible synapomorphies being the extensively darkened fore and mid femora and a tergum 4 that does not show any tomentose areas anterolaterally. Such tomentose areas are shown in figs 60, 61.

Diagnostic characters.
S. noona has extensively darkened fore and mid femora. The tergum 4 has no tomentose areas anterolaterally. The terga 2 and 3 are yellow-brown with at most an



Figures 153, 154. Epandrium with appendages of *Syritta noona* new species, holotype, PNG, New Ireland. – 153: lateral view; 154: dorsal view.

indication of a dark posterior fascia and median vitta. The hind femur has at least 20 small tubercles ventrobasally. The dorsal lobe of surstylus is a rod that is only slightly longer than cercus.

Description – male.

Face concave, grey-yellow tomentose. Oral margin level with frontal prominence. Eye contiguity c. 4.5, the longest in the genus. Vertical triangle with a ratio between tomentose lower part to blackish upper part of c. 3.5/2.0. Eye margins separated from anterior ocellus by a distance shorter than width of ocellus. Largest facets c. 54 µm, among the largest in the genus. Upper occiput with distinct tomentose marks. Basoflagellomere orange-yellow; size c. 3.2 x 2.4; arista c. 5.5.

Pleura greyish, upper katepimeron with a golden tinge; postpronotum with a reddish tinge, and greyish-yellow scutal vitta narrow. Remaining part of scutum and scutellum black, with dense covering of very minute punctures and extremely short pilosity; scutellum without a subapical pair of setae.

Veins brown-black and very well-marked. Spurious vein similarly well-marked and in fact wider than the R- and M-veins next to it. Stigma dark brown. Wing appears narrower than in most other *Syritta* and has a brownish tinge. Apical part of wing with a uniform cover by small but distinct microtrichia; bare areas occur towards bases of the R-cells and cell DM.

Fore and mid femora predominantly dark brownish, fore femur for about basal 3/4, mid femur for about basal 5/6, remaining parts and also corresponding tibiae yellow-brown. Hind femur strongly incrassate in both dimensions, shining black, and with a straight profile line ventrobasally.

Ventrobasal section of hind femur with an irregularly arranged armature of at least 20 small tubercles, each tubercle with a minute, blunt-tipped black setula; posteroventrally with an additional row of c. 6 thin pale setae about as long as tibial diameter. Ventroapical section of hind femur with the usual armature; setae anterior to ctenidial row are shorter than usual; 6 strong black posteroventral setae before apex.

Hind tibia unmodified, except for the usual anteroventral carina; colour dark leather-brown with third quarter yellow-brown; extreme base not paler than rest.

Terga 1 to 3 orange yellowish-brown, all terga with darker brown areas posteriorly

but not forming a regular fascia or vitta. Tergum 4 about as wide as tergum 3, shining black with a slight brownish tinge posteriorly; anterior 1/7 with a shining yellow-brown fascia which does not show any tomentum laterally. Sternum 4 with a deep U-shaped incision on median third, most of the lumen being covered by a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 153): cercus subtriangular. Dorsal lobe of surstylus a simple rod, only slightly longer than cercus, and gradually wider from about middle; pile positioned on median surface. Ventral surstylar lobe with short broad posterior projection. Dorsal view (fig. 154): cerci rather slender, median margin concave, rather sharply pointed. The dense apico-medial pilosity of dorsal surstylar lobe visible. Surstylar apodemes separate. Ejaculatory apodeme with a large hood.

Female.
Unknown.

Length: c. 9 mm.

Material examined.
Holotype: ♂. Papua New Guinea, New Ireland, Lemkamin, 1000 m, 18.IV.1962, Noona Dan Exp. 61-62 (ZMUC).

Distribution.
This species is only known from the type locality in Papua New Guinea (PNG).

Etymology.
The name refers to the Danish Noona Dan Exp. 1961-62.

Syritta polita new species

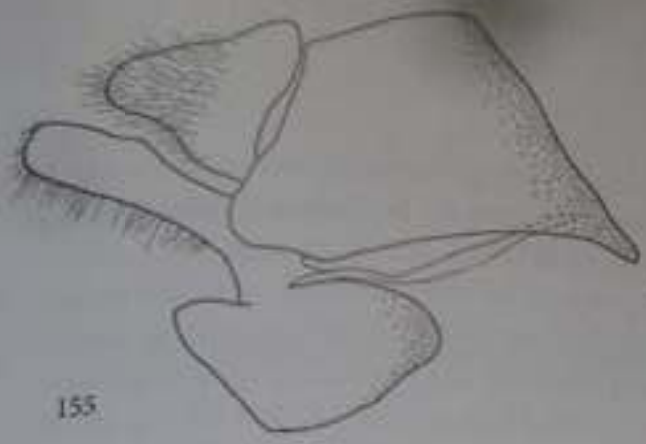
Figs 58, 155, 156.

We discovered one male specimen of this species among material of *Syritta oceanica* Macquart in the ZMHB. Together with *S. noona* new species, also only known in one specimen, it suggests that a largely unknown fauna of these flies may occur in the Papua New Guinea area (see also notes under *S. luteinervis* de Meijere).

Diagnostic characters.
This species has an entirely tomentose vertical triangle, extensively brown-black fore and mid femora, a median vitta on tergum 2 not reaching anterior margin, and a totally black tergum 4 without any grey tomentum in anterolateral corners.

Description – male.
Face slightly concave, yellow, with a thin covering of greyish tomentum. Oral margin less projecting than frontal prominence. Eye contiguity c. 3.5. Vertical triangle (fig. 58): totally greyish tomentose as far as area lateral of anterior ocellus, which is separated from eye-margins by a distance equal to width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere orange-yellow and small: size only c. 2.4 x 1.7; arista 4.0.

Tomentum of pleura greyish, of dorsal part of anepimeron and of postpronotum



Figures 155, 156. Epandrium with appendages of *Syritta polita* new species, holotype, PNG, New Britain. – 155: lateral view; 156: dorsal view.

and lateral scutum to suture more yellow-grey. Scutellum brown-black, with same short blackish pile as on scutum; any subapical pair of setae does not appear. A narrow strip of tomentum present anterior and median to postalar calli.

Veins and spurious vein strong, well-marked, dark brown. Stigma dark brown. Distinct microtrichia present in apical parts of cells R2+3, R4+5, and DM, and also along posterior margin of wing apex.

Fore femur dark brown in basal half; mid femur dark brown in basal 3/4; remaining parts of both femora and tibiae yellowish. Hind femur uniformly brown-black, incrassate, ventrobasal profile line straight.

Ventrobasal section of hind femur with 7 to 9 irregularly arranged minute tubercles, each with a small setula, and ranging from subbasal area to near apex of section; several fine white setae are present posteroventrally. Ventroapical section of hind femur with the usual armature; 6 black posteroventral setae before apex.

Hind tibia with the usual anteroventral carina; otherwise unmodified. Colour dark leather-brown with yellow-brown ring at middle; base not paler.

Tergum 1 dark brownish on mid-posterior part of tongue-shaped posterior portion, yellowish on anterolateral areas which also include lateral parts of tongue-shaped portion. Terga 2 and 3 yellow with broad brown-black posterior fasciae, on tergum 2 also with a vitta which does not reach anterior margin. Tergum 4 much wider than tergum 3, index 8:5, totally shining black, i.e. without tomentose anterolateral areas; with some brownish colour anteriorly and posteriorly. Sternum 4 evenly convex posteriorly.

Genitalia: Lateral view of epandrium and its appendages (fig. 155): cercus triangular, ventral margin concave; with a "root". Dorsal surstylar lobe slightly longer than cercus, gradually wider towards apex, and with a low bump at middle of dorsal surface. Ventral surstylar lobe with a short rounded posterior projection. Dorsal view (fig. 156): cerci with median and lateral margins concave, broadly rounded at apex. Apical part of dorsal surstylar lobes nearly parallel-sided and shows pile mainly on median surface. Surstylar apodemes fused for a long distance. Ejaculatory apodeme with an enlarged hood.

Female.
Unknown.

Length: c. 6 mm.

Material examined.
Holotype: ♂. Papua New Guinea, New Britain, Ralum [near Rabaul], Dahl S. 1896-97. Also "15/6 96" [1896] in hand-writing (ZMHB).

Distribution.
This species is only known from its type locality in Papua New Guinea (PNG).

Etymology.
The name refers to the entirely polished black tergum 4.

IX. The *nigrifemorata* species-group

This is one of the most securely motivated monophyletic species-groups. The synapomorphies for the six species are the presence in the male sex of a ventral lamina on the hind tibia (figs 157-162), this often being combined with excavations into the ventral tibial surface, and the presence at the middle of the hind femoral ventral surface of one, two or more strong tubercles, each of which is provided with a long whitish seta. In principle, the females possess the same structural elements as the males, but are more weakly expressed.

Three of the species, *S. nigrifemorata* Macquart, *S. leucopleura* Bigot, and *S. austeni* Bezzi, are Afrotropical; the other three species occur in the Oriental-Australian-Paric regions. Of these, *S. aenigmatopatria* Hardy and *S. hackeri* Klöcker are allopat- 161-164) and the presence of a subbasal group of strong setae on median surface of dorsal surstylar lobe. *S. thompsoni* new species possesses autapomorphies with regard to the large knot on hind femur (fig. 63) and the excavation of the hind tibia (fig. 160), and it shares a synapomorphy with *S. hackeri*, namely the presence of spine-like ventral setae before the apex of the dorsal surstylar lobe.

We have searched for a sister-group to the *S. nigrifemorata* species-group and have come to the conclusion that *S. orientalis* Macquart could be a candidate. The upcurved dorsal surstylar lobe of *S. orientalis* reminds of the upcurved dorsal lobes found in the Afrotropical members of the *S. nigrifemorata* species-group, and the presence in *S. leucopleura* of two small posteroventral subbasal setulae placed on a low ridge reminds of the situation in the female of *S. orientalis*; moreover, the cerci are similar in shape. The male of *S. orientalis* has a distinct posteroventral subbasal spina, and the hind tibia of *S. orientalis* is entirely simple in both sexes. These similarities are the reason for the many misidentifications of these flies.

Syritta nigrifemorata Macquart, 1842

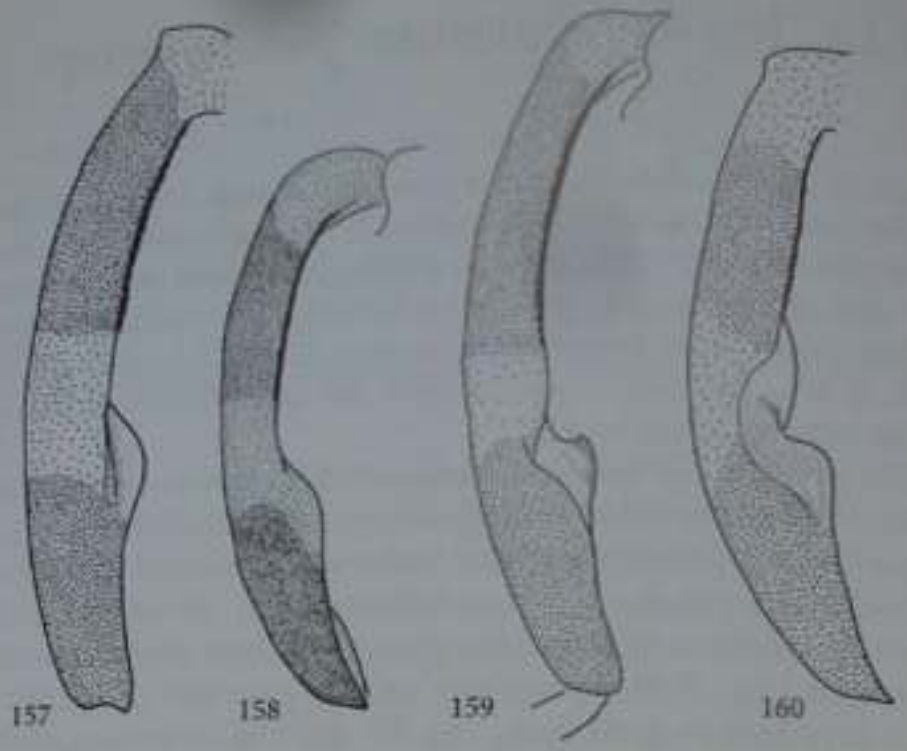
Figs 157, 165, 166.

Syritta nigrifemorata Macquart, 1842: 135.

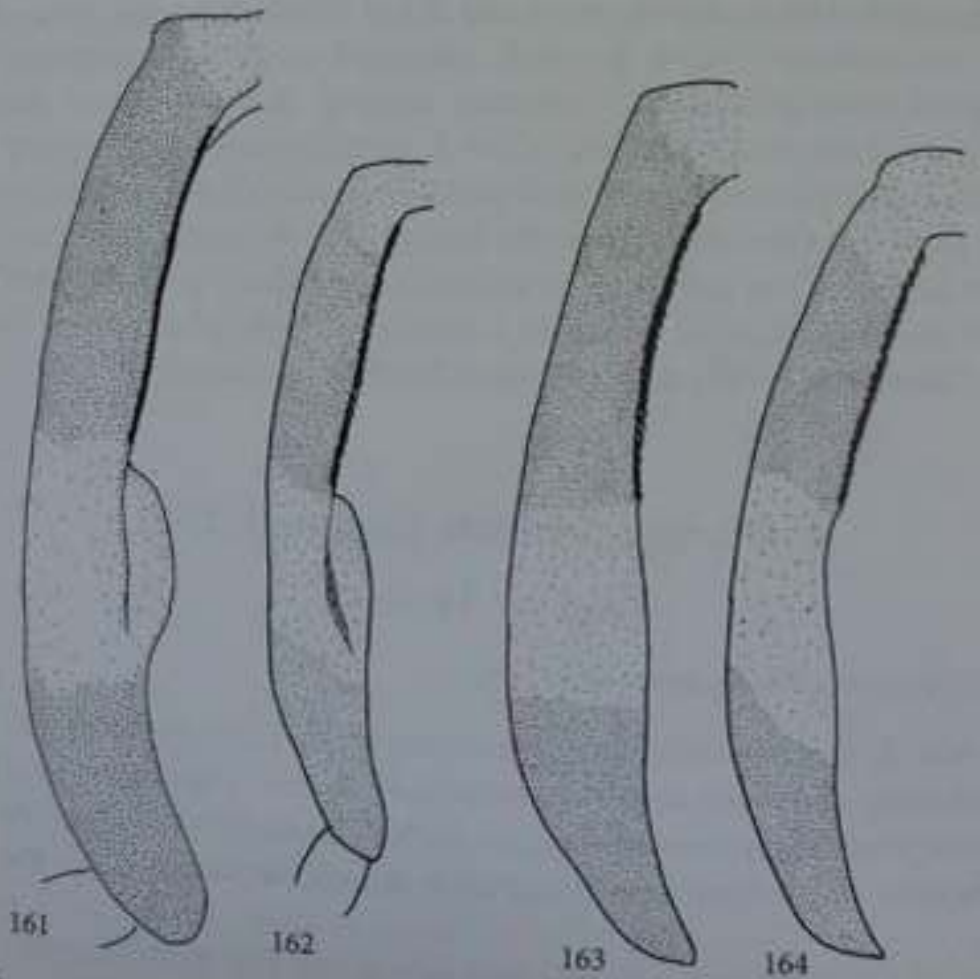
Together with *S. austeni* Bezzi and *S. leucopleura* Bigot, *S. nigrifemorata* Macquart forms a subgroup of closely related Afrotropical species. The characters of the head and the male genitalia are almost identical, the distinguishing characters being found in the structures of the hind femur and tibia, and in the colour of the fore and mid legs.

The type of *S. nigrifemorata* is reported missing in the Paris Museum collection (M. Baylac in litt. 25.4.2003) and the diagnosis given here is based on some specimens collected by one of us (WB) on Mauritius in November 2003.

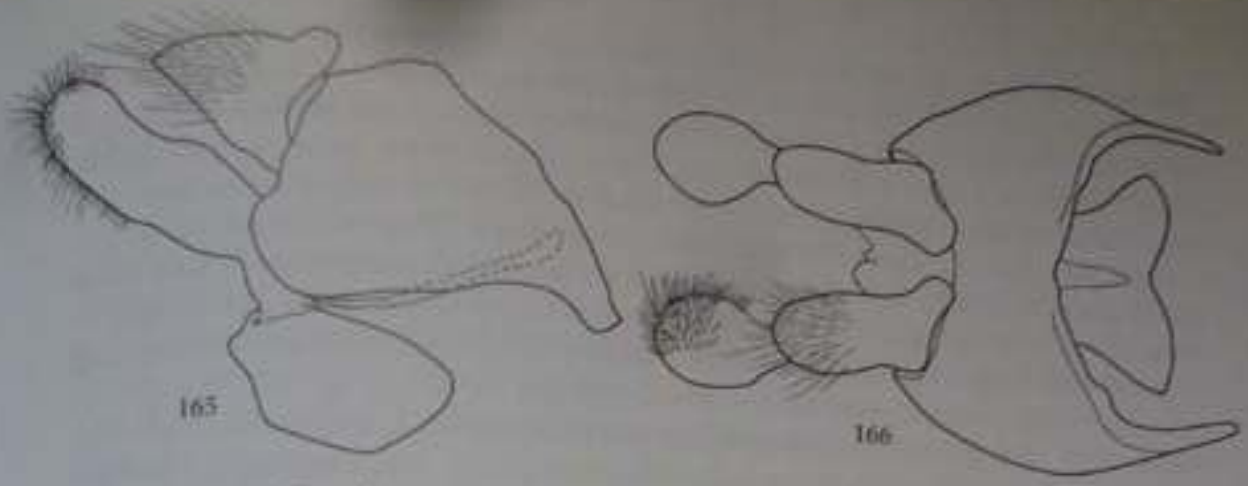
Kassebeer (2000: 64) collected 18 males and 5 females of a *Syritta* species on La Réunion in 1999. He compared his specimens with material of *S. nigrifemorata* Mac-



Figures 157-160. Male right hind tibia in anterior view of 157: *Syritta nigrifemorata* Macquart; 158: *S. leucopleura* Bigot; 159: *S. austeni* Bezzi and 160: *S. thompsoni* new species.



Figures 161, 162. Male right hind tibia in anterior view of 161: *Syritta hackeri* Klöcker and 162: *S. aenigmatopatria* Hardy.
Figures 163, 164. Female right hind tibia in anterior view of 163: *Syritta hackeri* Klöcker and 164: *S. aenigmatopatria* Hardy.



Figures 165, 166. Epandrium with appendages of *Syritta nigrifemorata* Macquart, Mauritius. – 165: lateral view; 166: dorsal view.

quart from Mauritius and concluded that the Réunion specimens were conspecific with Macquart's species. He also correctly came to the conclusion that *S. leucopleura* Bigot (with *S. tuberculifera* Keiser as a junior synonym), both described on specimens from Madagascar, is different from *S. nigrifemorata*. He reported on differences between the two species in characters of the hind femur, the hind tibia, and the male genitalia, but gave no details.

Diagnostic characters.
S. nigrifemorata is distinguished from its congeners by its largely blackish fore and mid femora and darkened fore and mid tibia. Hind femur with 6 to 8 stong tubercles, each of them with a setula; posteroventrally with 3 or 4 strong tubercles at the middle of the femur. No posteroventral subbasal setulae. The lamina formed by the anteroventral carina on the hind tibia continues on to the posteroventral side, forming a short, sharp-edged carina around the middle of the tibia.

Redescription – male.
Face slightly concave, yellow-grey tomentose. Oral margin level with frontal protuberance. Eye contiguity c. 3.5. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.5/1.5. Anterior ocellus separated from eye-margin by a distance shorter than width of ocellus. Largest facets c. 50 µm. Upper occipital marks distinct. Basoflagellomere orange-yellow; size c. 2.7 x 2.0; arista c. 4.5.

Tomentum of pleura greyish, of postpronotum and lateral scutal vitta to suture greyish with a brownish tinge. Scutal pilosity black and very short. Pilosity of scutellum much longer, especially along margin where c. 125 µm long; one pair of stronger marginal setae distinct.

Regular veins and spurious vein blackish, very well marked. Stigma brown-black. Part of wing apical to cross-vein R-M provided with punctiform microtrichia, but entirely bare strips occur along the longitudinal veins.

Fore and mid femora largely blackish, with about apical one-fifth yellow-brown. Fore and mid tibiae also darkened, especially in third quarter. Hind femur incrassate, more slender than in *S. leucopleura*, deep black, ventrobasal profile line straight.

Armature of the ventrobasal section of hind femur similar to the armature of *S.*

leucopleura Bigot, but with small differences: anteroventrally with a row of 6 to 8 strong tubercles, each tubercle with a blunt-tipped setula. Posteroventrally, at middle of femur, with 3 or 4 strong tubercles, each with a long pale seta; posteroventral subbasal setulae, as found in *S. leucopleura*, absent. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia has the same characteristic profile (fig. 157) as in *S. leucopleura*, but the lamina formed by the anteroventral carina not disappearing into ventral tibial surface, but continuing on to the posteroventral side where it forms a short, sharp-edged carina around middle of tibia. Colour deep black, interrupted by a yellow ring at middle; also some yellow colour at base.

Abdomen with a pattern of deep black and pale yellow. Tergum 1 blackish, with dull grey anterolateral areas. Tergum 2 with a broad black posterior fascia, a narrower anterior fascia, and a median vitta that at its narrowest occupies c. one-fourth of tergal width. Tergum 3 with a posterior fascia of c. one-third tergal length; a tap-like indication of a median vitta. Tergum 4 only slightly wider than tergum 3, black with narrow yellow posterior strip of integument; anterolateral areas of greyish tomentum small and continuing narrowly along side-margin to about middle of the tergum. Sternum 4 with a V-shaped incision in margin.

Genitalia. Very similar to those of *S. austeni* Bezzi and *S. leucopleura* Bigot. Lateral view of epandrium and its appendages (fig. 165): cercus subtriangular, rather sharply pointed; pilosity long and fine. Dorsal lobe of surstylus robust, nearly equally wide throughout, with slightly irregular profile lines. Entire ventro-median surface with a dense covering of short black setae that show along ventral margin of apical half; also intermixed here are very fine and longer setae. Ventral lobe of surstylus only slightly projecting posteriorly. Dorsal view (fig. 166): cercus almost equally wide, broadly rounded apically. Apical part of dorsal surstylar lobe almost circular. Surstylar apodemes fused for a short distance. Ejaculatory apodeme with a large hood.

Female.

Face as in male. Frons with a ratio between tomentose lower part and blackish upper part of c. 4.0/6.0; the pair of tomentose spots on upper frons are small and ill-defined, and also the border between the tomentose part and the blackish part. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Thorax and wings as described for male. Fore and mid femora nearly totally deep black, only extreme apex yellow. Fore and mid tibiae blackish in about apical half, but extreme apex paler. Hind femur with colour and armature as descibed for male, but the tubercles bearing white setae are weaker. Hind tibia at one-third from apex with a low lamina that runs from anteroventral carina and disappears into mid-ventral tibial surface. Hind tibia deep black; a paler ring at middle is only indicated. Abdomen wider than in the male, and colour pattern of terga 1 and 2 as in this sex. Terga 3 and 4 black, each tergum with small anterolateral areas that have both a yellow-brown colour and a white-grey tomentum, tergum 4 also with a posterior strip of yellow-brown integument.

Length: 7-8 mm.

Material examined.
The holotype in the MNHN is missing, Baylac in litt., 25.4.2003.
1 ♀, Aldabra, West Island, nr Settlement, 7.-12.III.1968, leg. B. Cogan & A. Hutson (BMNH);
2 ♂♂, 2 ♀♀, Mauritius, Anse Jonchée (N Mahébourg), mangroves / ruderal areas, 24.X.2003, leg. Barkemeyer (Bkm);
2 ♂♂, 2 ♀♀, Mauritius, Anse Jonchée (N Mahébourg), mangroves / ruderal areas, 25.X.2003, leg. Barkemeyer (Bkm);
7 ♂♂, Mauritius, Anse Jonchée (N Mahébourg), Domaine d'Ylang Ylang and nearby, secondary forest, 25.X.2003, leg. Barkemeyer (Bkm);
1 ♂, 1 ♀, Mauritius, Curepipe: Botanical Gardens, 18.XI.2003, leg. Barkemeyer (Bkm);
2 ♂♂, 1 ♀, Mauritius, Black River Gorges National Park, W Le Pétrin, 19.XI.2003, leg. Barkemeyer (Bkm);
5 ♂♂, Mauritius, Le Pousse (southern area) near Port Louis, 20.XI.2003, leg. Barkemeyer (Bkm);
Kassebeer (2000) recorded 18 specimens of *S. nigrifemorata* from two different localities on La Réunion.

Distribution.
Aldabra, Mauritius, and Réunion.

Habitats.
On Mauritius *S. nigrifemorata* was found in various habitats in 2003. Apparently this species is neither rare nor restricted to primary biotopes.

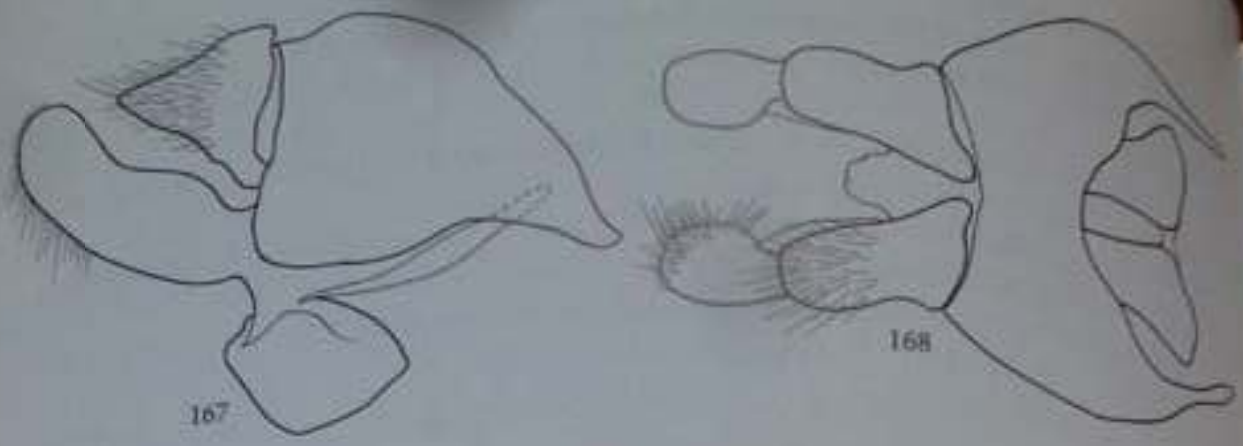
Syritta leucopleura Bigot, 1859

Figs 15, 38, 83, 158, 167, 168.

Syritta leucopleura Bigot, 1859: 437.
Syritta tuberculifera Keiser, 1971: 291.

S. leucopleura Bigot is a widely distributed species in Madagascar and continental Africa. It is a sister-species to *S. nigrifemorata* of Mauritius, La Réunion, and Aldabra. The easiest way to separate these two species is by the colour of the fore and mid femora, but there are also structural differences in the hind femur and tibia; it is important to recognise the presence of a couple of subbasal posteroventral setulae (see also the descriptions). The male genitalia of the three Afrotropical species of the species-group are very similar and can probably not be safely distinguished.

Diagnostic characters.
In the male the presence of subbasal posteroventral setulae on hind femur, a characteristic subapical lamina ventrally on the hind tibia, and brownish fore and mid legs distinguish this species from the other members of the species-group. Female with a notch at middle in the hind anteroventral carina.



Figures 167, 168. Epandrium with appendages of *Syritta leucopleura* Bigot, paratype of *S. fa-bercaulifera* Keiser, Madagascar, Tamatave. – 167: lateral view; 168: dorsal view.

Redescription – male.

Face sligthly concave, whitish-grey tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.5. Vertical triangle (fig. 38) with a ratio between tomentose lower part to blackish upper part of c. 3.2/2.2. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere orange-yellow; size c. 3.1 x 1.9; arista c. 3.6.

Tomentum of pleura, postpronotum and lateral scutal vitta to suture yellow-grey, often with a red tinge, yet more ash-grey on katepisternum. Marginal scutellar setae black; one or two pairs distinguish; their length c. 50 µm. Mesonotal pile pale.

Veins and spurious vein brown-black, well-marked. Stigma pale brown. Part of wing apical to cross-vein R-M with a poor provision with punctiform microtrichia in apical parts of the R-cells, in cell DM, and on area between marginal veins and wing margin.

Fore and mid legs yellow-brown to brown, femora sometimes darker than tibiae. Hind femur strongly incrassate, its colour variable, from yellow-brown with dark brown apex to entirely black. Ventrobasal profile line straight.

Ventrobasal section of hind femur anteroventrally with a row of 4 to 7 fine tubercles; especially the subbasal ones are fine; each tubercle is carrying a black setula. Posteroventral armature: a couple of fine subbasal setulae, often placed on a low ridge, and at middle of femur with 2 moderately large tubercles each of which is armed with a long thin pale seta. Ventroapical section of hind femur with the usual armature, including 4 black posteroventral setae before apex.

Hind tibia (fig. 158) has a characteristic profile: in anterior view the anteroventral carina raises from apex to form a lamina that curves towards posterior side at one-third from apex and suddenly disappears into the ventral tibial surface. Colour pale brownish, yellowish at base and in a ring at middle.

Tergum 1 (fig. 15) with a brown-black middle area, white-yellow tomentose anterolaterally. Tergum 2 yellow, with a narrow blackish anterior fascia, a broader posterior fascia, and a median vitta that may be ill-defined or may cover up to c. one-fifth of tergal width at its narrowest. Tergum 3 yellow with a dark posterior fascia. Tergum 4

blackish, only indistinctly brownish posteriorly; its anterolateral areas of tomentum of restricted distribution. Sternum 4 with a deep V-shaped incision.

Genitalia. Very similar to those of *S. austeni* Bezzi and *S. nigrifemorata* Macquart. Lateral view of epandrium and its appendages (fig. 165): cercus subtriangular, rather sharply pointed; pilosity of moderate length. Dorsal lobe of surstylus nearly identical in shape to that of *S. nigrifemorata*, but pilosity much weaker and more sparse. Ventral lobe of surstylus relatively small; only slightly projecting posteriorly. Dorsal view (fig. 166): cerci shaped as in *S. nigrifemorata*, and apical part of dorsal surstylar lobe smaller and with a finer and sparser pilosity.

Female.

Face as in male. Frons (fig. 83) with a ratio between tomentose lower part and polished black upper part of c. 4.0/5.0; the blackish upper part with a pair of small tomentose spots which are well separated. Basoflagellomere darker than in male. Thorax, wings, and legs as described for male, the femur with the same few setulae posteroventrally. The well-developed lamina as found in the male hind tibia (see fig. 158) is only indicated in the female, and is best recognised as a notch at middle into the anteroventral carina. (The presence of this notch is one of the distinguishing characters by which to separate the female *S. leucopleura* from the female of *S. longiseta* new species.) Abdomen wider than in male, almost parallel-sided throughout, and with the same pattern as in the male. Anterolateral areas of tergum 4 are larger than in male.

Length: 7-8 mm.

Material examined.

Type material.

Syritta leucopleura Bigot, 1859

Holotype: ♀. Small rectangular label with handwritten "Mad." / circular blue label with "Guerin / Mene / ville" in print / large square label of 20 x 20 mm with the following handwritten text: "*Syritta / Leucopleura* ♀ / nov. sp. Type / rf. Bigot / adhuc in litteris / 10 mars 1898" (MNHN). [The handwriting of labels 1 and 3 are not of the same person; condition: well preserved.]

Syritta tuberculifera Keiser, 1971

Paratypes of *Syritta tuberculifera* (Keiser 1971: 291): 4 ♂♂ and 1 ♀ (NHMB), all males labelled as paratypes and the female as allotype: Mad[agascar] (Tan.) Tananarive, 1 ♂, 1.IX.[19]58, leg. Keiser; Mad. (Tan.) Tananarive, 1 ♂, 15.XII.[19]57, leg. Keiser; Mad. (Tam.) Tamatave, 1 ♂, 8.X.[19]57, leg. Keiser (diss.); Mad. (Tam.) Tamatave, 1 ♂, 9.X.[19]57, leg. Keiser; Mad. (Fia.) Marofody, 1 ♀, 18.VIII.[1958], leg. Keiser.

Additional material.

2 ♂♂. Chad, Bebedjia, 300 m, 25.IX. & 30.XII.1972, leg. Bink-Moenen (ZMAN);

1 ♀. Senegal, 1 km N Touba-Kouta, 4. III. 1977, leg. Exp. (MZLU);

1 ♂. Gambia, River Gambia, 1-2 km W Georgetown, 27.II.1985, leg. Barkemeyer (Bkm);

1 ♂. DR Congo, Parc National Garamba, 343, I/b/3', 29.III.1950, leg. Miss. H. De Saeger (MRAC);

1 ♂. DR Congo, P.N.G., 944, I/o/I, 9.XI.1950, leg. Miss. H. De Saeger (MRAC);
1 ♂. DR Congo, P.N.G., Morubia/8, 14.VI.1951, leg. Miss. H. De Saeger (MRAC);
1 ♂. DR Congo, P.N.G., II/fd/17, 25.VI.1951, leg. Miss. H. De Saeger (MRAC);
1 ♂. DR Congo, Katanga, Luembe, VIII/IX 1956, leg. R. P. Th. de Caters (MRAC);
1 ♂, 1 ♀. DR Congo, Lubumbashi ["Elisabethville"], 1.XII.1929, leg. J. Bequaert (MRAC);
1 ♂. DR Congo, Parc National Albert, Sl. Eduard, r. Rwindi, 1 000 m, 8.II. 1936, leg. L. Lippens (MRAC);
2 ♂♂. DR Congo, Parc National Upemba, Mabwe (lac Upemba), 585 m, 4. IX.1947, leg. Miss. G. F. de Witte (MRAC);
1 ♂. DR Congo, P. N. U., Riv. Lupiala, 30.IV.1945, leg. G. F. de Witte: 173 (MRAC);
1 ♂. DR Congo, Baudouinville, 9.I.1933, leg. L. Burgeon (MRAC);
4 ♂♂. DR Congo, Congo Da Lemba, I.-II.1913, leg. R. Mayné (MRAC);
2 ♂♂. DR Congo, Bas-Congo, Boma, leg. Tschoffen (IRSNB);
1 ♀. Kenya, Nairobi, Tana River, 19.XI.1951, leg. Edwards (BMNH);
1 ♂. Kenya, Shimba Hills, 14.VIII.[19]81, leg. Freidberg (USNM);
2 ♂♂, 1 ♀. Kenya, Nguruman, 1°47.23' S 36°04' E, Agric. Area, 6.-8.X.[19]98, leg. Copeland (USNM);
1 ♂. Kenya, Nairobi, leg. Edwards (BMNH);
1 ♀. Tanzania, [northwest T., near Nata], Torina [= small river], 4.-18.III.1952, leg. D.O.Afrika Exp. [= German East Africa Expedition] (SMNS);
1 ♂. Tanzania, Langenberg, Nyassa-See, VI.-VII.1898, leg. Fülleborn (ZMHB);
1 ♀. Tanzania, Dar es Salaam, 20.VI.1979, leg. Stoltze (ZMUC);
2 ♂♂. Tanzania, East Usambara, Amani, 1 000 m, 2. & 15.VII.1980, leg. Stoltze & Scharff (ZMUC);
1 ♂. Tanzania, Myheza, VII.1980, leg. Phipps (BMNH);
3 ♀♀. Madagascar, Fort Dauphin Mandena, 1 000 m, 14.-18.IV.[19]68, leg. KMG & PD (BMNH);
1 ♂. Madagascar, Tam., Foulpointe, V.1995, leg. A. Pauly (MRAC);
2 ♂♂, 1 ♀. Madagascar, Fampanambo, 1962, leg. J. Vadow (MRAC);
1 ♀. Madagascar, NE, Maroantsetra, IX.1959, leg. J. Vadow (MRAC);
1 ♂, 2 ♀♀. Madagascar, Rogez, for. Analandraraka, VI.[19]37, leg. S. Seyrig (MRAC, RMHN);
4 ♂♂, 2 ♀♀. Madagascar, Rogez, VIII.1937, leg. S. Seyrig (MRAC);
1 ♂. Madagascar, Rogez, for. Analandraraka, VI.1937, leg. Seyrig (RMNH);
1 ♂. Mozambique, Lor. Marques, 9.XII.[19]08, leg. Howard (USNM);
1 ♂. Mozambique, Luabo, I. 1953, leg. P. J. Usher (NMSA);
1 ♂. Mozambique, Luabo, Lower Zambesi River, VI.-VIII.1957, leg. Usher & Stuckenberg (RMNH);
2 ♀♀. Mozambique, Luabo, Lower Zambesi river, VIII.1957, leg. Usher (NMSA);
4 ♂♂, 2 ♀♀. Mozambique, Lower Zambesi R., VIII.1957, leg. P. J. Usher (NMSA);
1 ♂. Malawi, Zomba, 1 100 m, 24.-27.XI.1980, leg. Londt & Stuckenberg (NMSA);
1 ♀. Zambia, N. Prov., Env. Kasyasya, 750 m, IX.82-III.83, leg. Willemse (RMNH);
3 ♀♀. South Africa, Durban, 18.V.1908, leg. Leigh (2 ♀♀: NMSA, 1 ♀: ZMUC);
1 ♀. South Africa, Tongaland, Ndumu Reserve, Ingwavuma District, 1-10.XII.1963, leg. B. & P. Stuckenberg (NMSA);

1 ♀, South Africa, Zululand, Empangeni, 5.XII.1980, leg. Reavell (NMSA);
1 ♀, South Africa, Transvaal, Kruger Nat. Park, 9.-12.1985, leg. Londt (NMSA).

Distribution.
This Afrotropical species is widely distributed ranging from Chad, Senegal, and The Gambia in the north to Durban in South Africa in the south. *S. leucopleura* is also widely distributed on Madagascar.

Habitats.
One of us (WB) observed this species in different habitats such as woods and forests, but also in agricultural fields, by rivers and on roadsides.

Syritta austeni Bezzi, 1915

Figs 24, 159, 169, 170.

Syritta austeni Bezzi, 1915: 107.

Together with *S. nigrifemorata* Macquart and *S. leucopleura* Bigot, *S. austeni* forms a subgroup within a larger *S. nigrifemorata* species-group. *S. austeni* is a widely distributed species in Africa, especially in the northern and central parts of the Afrotropical region. It even occurs in urban parks (see material: Dakar, Senegal).

Diagnostic characters.
S. austeni is usually easily recognised by the enlarged basoflagellomere, the brownish hind femur, and, in the male sex, by the hind tibial lamina having an anteriorly directed tooth-like process (fig. 159). The female tergum 2 (fig. 24) has an unique pattern. In the armature of the ventrobasal section of the hind femur, the 2 posteroventral tubercles, each with a pale seta, are remarkable for their large size.

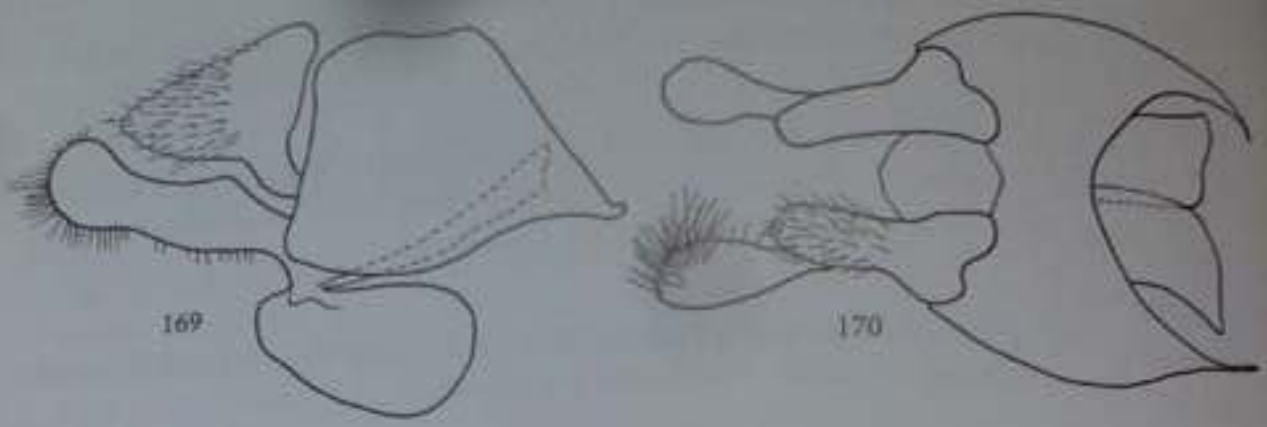
Redescription – male.
Face slightly concave, pale grey-yellow tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.0. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 4.0/1.0. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere orange-yellow; size c. 3.8 x 2.1; arista c. 4.8.

Tomentum of pleura, postpronotum and lateral scutum to suture yellow-grey, but katepisternum more pure grey. Scutellum without distinct subapical setae, or a minute pair of setae present; less than 20 µm long. Mesonotal pile pale in colour.

Regular veins and spurious vein blackish, well marked. Stigma pale brown. Area between marginal veins and wing margin as well as apical parts of cells R1, R2+3 and R4+5 well provided with microtrichia; basal parts of same cells with few and minute microtrichia.

Fore and mid legs yellow-brown to brown. Hind femur moderately incrassate, ventrobasal profile line slightly concave. Colour yellow-brown to red-brown, apical third darker brown.

Ventrobasal section of hind femur with 2 or 3 subbasal tubercles, each with a short blunt black setula; these tubercles have a true ventral position. Around middle of



Figures 169, 170. Epandrium with appendages of *Syritta austeni* Bezzi, Senegal, Dakar. – 169: lateral view; 172: dorsal view.

femur, and more posteroventrally, are 2 larger tubercles, each with a long white seta; also with a few short thin white setae on anteroventral surface. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia (fig. 159) with a specific shape: from apex the anteroventral carina is directed towards the posterior side, which is reached at about one-third tibial length from apex; it terminates here as an anteriorly directed tooth-like lamina which is opposed by an incision into the anterior tibial margin.

Tergum 1 with a large brown-black middle area, white-yellow laterally. Tergum 2 yellow with a narrow anterior fascia, and a broader posterior fascia which sends a gradually widening vitta of c. one-fifth tergal width to anterior fascia. Tergum 3 yellow with a posterior fascia which is widest in middle, and continues anteriorly as a triangular brown vitta. Tergum 4 shining brown-black to black, posteriorly rather broadly pale brown; moderately large anterolateral areas of grey tomentum present. Sternum 4 with deep, regularly V-shaped incision.

Genitalia. Very similar to those of *S. leucopleura* Bigot and *S. nigrifemorata* Macquart. Lateral view of epandrium and its appendages (fig. 169): cercus triangular, with "root". Dorsal lobe of surstylus short, wide, with a dorsal concavity; pile present on median surface for entire length, and especially rich at apex. Ventral lobe of surstylus pear-shaped. Dorsal view (fig. 170): cerci and apex of surstylar lobes appearing more slender than in the similar species: *S. leucopleua* and *S. nigrifemorata*. Surstylar apodemes separate but touching. Ejaculatory apodeme with a large hood.

Female.

In the female sex *S. austeni* can be rather easily recognised on the basis of several characters. First of all, the elongate basoflagellomere is characteristic and is even longer than in the male: average of 6 specimens measured is 4.2 (range 4.0-4.6). Hind femur brownish as in male, and with some coarse and irregularly arranged tubercles on ventral surface. As in *S. leucopleura* Bigot, the hind tibial anteroventral carina shows a low lamina in apical third, followed by an indistinctly marked incision in the carina. The pattern of tergum 2 (fig. 24) is remarkable, consisting of an anterior and a posterior fascia, the fasciae being connected by a vitta that is composed of two

parallel-sided sections, a very wide posterior one and a much narrower and shorter anterior one. The extreme lateral parts of tergum 2 are more or less distinctly yellow-brown, and the small areas lateral to the narrow part of the median vitta are white-grey tomentose. This pattern is very different from the hourglass-shaped pattern of tergum 2 in *S. leucopleura*. For other details: see diagnosis of the male.

Length: 7-9 mm.

Material examined.

Type material.

Syntypes: 1 ♂. Large brown handwritten label: "*Syritta austeni*, n. sp., type ♂"; handwritten label: "Freetown / Sierra Leone / W. Africa / 17.VIII.1899, E. E. Austin, 99.267" / typed round blue-margined label: "Syntype"; typed and handwritten round red-margined label: "♂ Type / *Syritta austeni* / Bezzi" (BMNH). Condition: good, but left hind leg missing, also right basoflagellomere missing, right wing has become loose.

1 ♀. Large handwritten label: "*Syritta austeni*, type ♀" / handwritten label: "Freetown / Sierra Leone / W. Africa / 26.VIII.1899 / E. E. Austen / 99.267" / typed round blue-margined label: "Syntype" / typed and handwritten round red-margined label: "♀ Type / *Syritta austeni* / Bezzi" (BMNH). Condition: as in male, left hind leg missing (identity: conspecific with male).

1 ♂, "Freetown, Sierra Leone, W. Africa, 17.VIII.1899, [leg.] E. E. Austin, 99.267" (BMNH);

1 ♀, "Freetown / Sierra Leone / W. Africa / 26.VIII.1899 / E.E. Austen / 99.267".

Additional material.

1 ♂, 2 ♀♀. Senegal, Dakar, City, Park d' Musee de l'Ifan, 20.II.1985, leg. Barkemeyer (Bkm);

1 ♂. Gambia, Bakau W of Banjul, 10.-20.I.1979, leg. Petersen (ZMUC);

1 ♂. Gambia, ca. 11 km W Banjul: Bakau – Atlantic coast, shore, 25.IX.1987, leg. Barkemeyer (Bkm);

3 ♀♀. Liberia, Gbanga, IX.1926, leg. J. Bequaert (MRAC);

1 ♀. Ghana ["Gold Coast"], Kumasi, 6.IX.[19]47, leg. J. Bowden (NMSA);

1 ♂. Nigeria, Kaduna, VIII.1952, leg. Nash (NMSA);

12 ♂♂, 2 ♀♀. Chad, Bebedjia, 400 m, IX.-X.1972, leg. Bink-Moenen (ZMAN) [remark: sympatric with *S. leucopleura*];

1 ♂, 3 ♀♀. Cameroon, Douala, 1.VIII.1975, leg. Lucas (ZMAN);

2 ♂♂. Cameroon: Yaoundé: City: Cemetary near main post office, 25.II. & 9.III.1985, leg. Barkemeyer (Bkm);

1 ♂. DR Congo ["Congo belge"], Parc National Garamba, 3418, II/fe/8, 3.V.1952, leg. Miss. H. De Saeger (MRAC);

1 ♂. DR Congo ["Congo belge"], Lac Kivu, Nyamule, rive E, 16.X.[19]35, leg. D. Damas (MRAC);

1 ♂. DR Congo ["Congo belge"], P. N. G., 2701, 30.X.1951, leg. Miss. H. De Saeger (MRAC);

2 ♂♂. DR Congo ["Congo belge"], P. N. G., 944, 9.XI.1950, leg. Miss. H. De Saeger (MRAC);

1 ♀. DR Congo ["Congo belge"], P. N. G., 4078, 22.IX.1952, leg. Miss. H. De Saeger (MRAC);
1 ♀. DR Congo ["Congo belge"], P. N. G., 2056, 9.VII.1951, leg. Miss. H. De Saeger (MRAC);
1 ♀. DR Congo [„Congo belge"], Elisabethville, leg. M. Bequaert (RMNH);
1 ♂. DR Congo, Uelé, Gangala na Bodo, 15.IV.[19]36, leg. L. Lippens (now: ZMUC);
1 ♂. DR Congo, Terr. Rutshuru, 7.IV.1937, leg. Mission Prophylactique (MRAC);
1 ♂. DR Congo, Bambesa, 30.X.1933, leg. H. J. Bredo (MRAC);
2 ♂♂. DR Congo, Lubumbashi ["Elisabethville"], 13.V. & 27.V.1920, leg. M. Bequaert (1 ♂: MRAC, 1 ♂: RMNH);
1 ♂. DR Congo, Lubumbashi ["Elisabethville"], 18.I.1921, leg. M. Bequart (MRAC);
3 ♀♀. DR Congo, Kisangani ["Stanleyville"], 21.-27.IV.1915, leg. Exp. Lang-Chapin (RMNH);
1 ♀. DR Congo, Basoko, X.1948, leg. P. L. G. Benoit (RMNH);
1 ♀. DR Congo, Uelé, Buta, II.1938, leg. J. Vrydagh (RMNH);
1 ♀. DR Congo, Congo da Lemba, X.1912, leg. R. Mayné (MRAC);
1 ♀. DR Congo, Bas-Congo, Boma, XI.1950, leg. I. Mesmaekers (RHNH);
2 ♀♀. DR Congo, Kinshasa ["Leopoldville"], IX.1950, leg. Leclercq (IRSNB);
1 ♂. Burundi, Kitaba, 1850 m, 10.VI.1949, leg. Francois (IRSNB);
1 ♀.Uganda, Entebbe, 20.XI.1972, leg. Falke (CNC);
1 ♀.Uganda, South, Mborara, 1220 m, V.1972, leg. Babyetagara (CNC);
1 ♀. Kenya, Nairobi Westlands, 1750 m, 28.-31-VII. 1975, leg. B. Petersen (ZMUC).
2 ♂♂. Zimbabwe, N. Vumba, 26. & 29.IV.1964, leg. Cookson (NMSA).

Distribution.
This Afrotropical species can be found in an area ranging from Senegal (Dakar) and Chad in the north to Zimbabwe in the south. It seems to be fairly common in Central Africa (DR Congo).

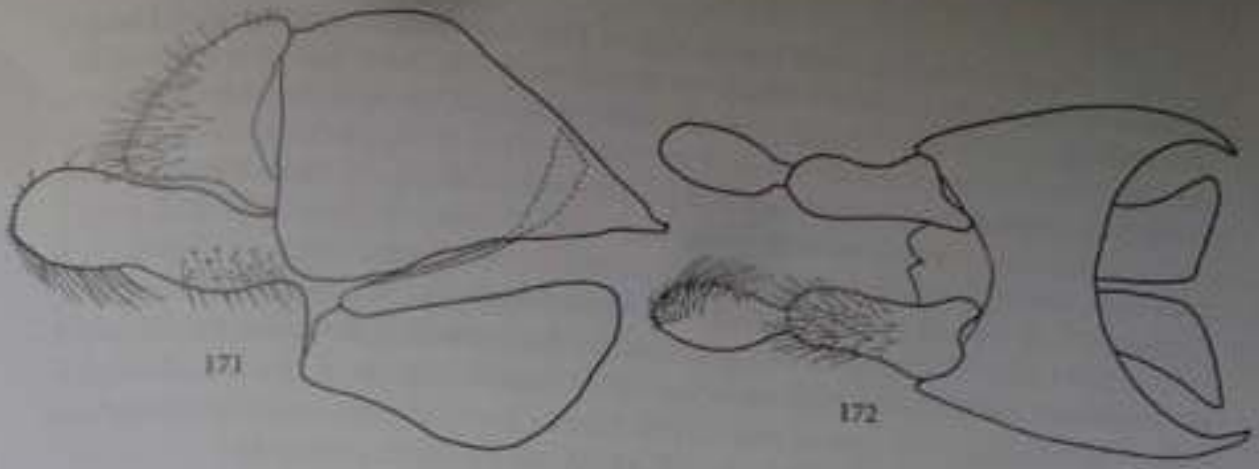
Habitats.
This species is apparently not restricted to natural habitats since one of us (WB) found specimens in a park (Dakar, Senegal) and in a cemetary (Yaoundé, Cameroon).

Syritta aenigmatopatria Hardy, 1964

Figs 162, 164, 171, 172.

Syritta aenigmatopatria Hardy, 1964: 409.

S. aenigmatopatria Hardy is a widely distributed Oriental and Pacific species (for more details, see below). It has a sister-species, *S. hackeri* Klöcker, in eastern Australia and Papua New Guinea. *S. thompsoni* new species from Taiwan and a small island near Java is a third related species. These three species are the non-Afrotropical members of a clearly monophyletic species-group, which is based on the modified hind femur and tibia.



Figures 171, 172. Epandrium with appendages of *Syritta aenigmatopatria* Hardy, The Philippines, Palawan. – 171: lateral view; 172: dorsal view.

Diagnostic characters.
This species has a black scutellum. The fore and mid femora are yellowish-brown, with basal one-fifth to one-third dark. The hind femur is uniformly blackish.

In the male, *S. aenigmatopatria* is characterised by a subbasal, low, knotty, ridge-shaped spina carrying 3 or 4 black setulae anteroventrally on the hind femur; there is also an irregular row of 5 to 7 small tubercles; posteroventrally on the hind femur subbasally with 1 to 3 tubercles, also with a weak spina and further towards apex of section with 1 or 2 tubercles. Hind tibia (figs 162, 164) with an elongate lamina that stretches onto the apical fourth. Terga 2 and 3 without complete median fascia. In the female the hind tibia has a low anteroventral lamina subbasally, fore and mid femora are basally darkened, the hind femur is blackish and tergum 4 has a characteristic coloration.

Redescription – male.
Face slightly convex below and above, mid section slightly concave; tomentum whitish golden-yellow. Oral margin level with frontal prominence. Eye contiguity c. 4.0. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.5/2.0; tomentum ash-grey. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 60 µm. Upper occiput with continuous tomentum. Basoflagellomere orange-yellow; size c. 3.2 x 2.3; arista c. 5.0.

Tomentum of pleura, postpronotum and lateral scutum to suture yellowish-grey, but more ash-grey on katepisternum and anterior anepisternum. Also a strip of yellow-grey tomentum along posterior margin of scutum from wing-base to wing-base. Scutellum black, with thin pale setae along margin; one pair of setae may appear slightly stronger, their length 50-60 µm. Pilosity of scutum appearing short and pale.

Regular veins and spurious vein dark brown and distinct; stigma also is dark brown. At level of cross-vein RM the R-cells have areas devoid of microtrichia; such occur towards apex of wing and along posterior margin.

Fore and mid legs yellow-brown, femoral bases distinctly darkened, dark brownish to blackish, for about basal one-fifth to one-third. Hind femur strongly incrassate, shining brown-black to black; ventrobasal profile line straight.

Ventrobasal section of hind femur with a rich armature that is arranged in an anteroventral and a posteroventral row. Anteroventrally, with a low, knotty, ridge-shaped spina subbasally which has 3 or 4 black setulae. Then follows an irregular row of 5 to 7 small tubercles, each tubercle provided with a black setula. Posteroventrally with 1 to 3 tubercles subbasally, similar to those just described. Then follows a weak but genuine spina with a whitish seta, and further towards apex of section 1 or 2 tubercles bearing a whitish seta. Ventroapical section of hind femur with the usual armature; 4 or 5 black posteroventral setae before apex.

Hind tibia (fig. 162) with an elongate lamina that raises on the ventral mid-line at the middle of the tibia and continues on to the fourth quarter of the tibia (compare with *S. hackeri*, fig. 161). Apical part of this lamina has the most anterior position on the tibia. Colour brownish, with base and a ring after middle yellowish.

Tergum 1 brown-black from side-margin to side-margin of posterior part; anterolateral areas yellowish with a thin white-grey tomentum. Terga 2 and 3 yellowish, each with a brown-black posterior fascia; both fasciae with convex anterior borders and occupying 5/8 and one-third of tergal length, respectively. Tergum 4 is c. 1.3 times as wide as tergum 3, shining black with posterior one-sixth yellow-brown, non-tomentose. Anterolaterally are small transverse bars of grey tomentum; they may be nearly absent. Sternum 4 with a deep incision in posterior margin; mid section U-shaped.

Genitalia. Lateral view of epandrium and its appendages (fig. 171): cercus higher than long; pile moderately long, rather sparse. Dorsal lobe of surstylus almost equally wide throughout, with a low subbasal bump dorsally and a larger subbasal lobe ventrally; the latter with c. 20 strong black setae on its median surface; they are clearly visible through the transparent integument. Apical third of dorsal lobe with short black setae along margin and on median surface; also a group of long pale setae which stretches anteroventrally. Ventral lobe of surstylus subtriangular, broadly rounded posteriorly. Dorsal view (fig. 172): the short cercus with concave sides and broadly rounded apically. Apical part of dorsal lobe of surstylus oval and both the short black and long pale setae on its median surface visible. Surstylar apodemes separate. Ejaculatory apodeme with a large hood.

Female.

Among the non-Afrotropical species of *Syritta*, the females of 2 (?3) species can be recognised by a characteristic convexity of the hind tibia (see figs 163, 164); this extension being caused by a low anteroventral lamina at one-third from tibial apex. The two sister-species *S. aenigmatopatria* Hardy and *S. hackeri* Klöcker (and probably also the unknown female of *S. thompsoni* new species) possess such a hind tibial lamina.

The female of *S. aenigmatopatria* can be separated from the *S. hackeri* female by the blackish scutellum, the basally darkened fore and mid femora, the blackish hind femur, and a tergum 4 that has a distinct posterior strip of yellowish integument as well as yellowish anterolateral areas of integument; these areas usually with some tomentum.

Length: 8-9 mm.

Material examined.

The holotype from Oahu, Hawaiian islands in the BPBM has not been examined.

1 ♀. Viet Nam, Dalat 6 km S., 1400-1500 m, 9.VI.-7.VII. 1961, leg. Spencer (BPBM);

6 ♂♂, 1 ♀. Indonesia, Sumatra, Fort de Kock, 920 m, 1925 & 1926, leg. E. Jacobson (ZMAN, SMF);

1 ♂. Indonesia, Java, Samarang, VII.1909, leg. E. Jacobson (ZMAN);

1 ♂. Indonesia, Java, Samarang, leg. E. Jacobson (ZMAN);

2 ♂♂. Indonesia, Java, Batavia, II.1908, leg. E. Jacobson (ZMAN);

1 ♂. Indonesia, Java Sea, Karimundjawa Is., Pulau, 25.X.-27.XI.1955, leg. A. Hoogerwert (RMNH);

3 ♂♂, 1 ♀. Indonesia, W. Java, Bandoeng, 700 m, 1940, leg. J. Olthof (RMNH);

1 ♂. Indonesia, Tandjong Priok, XII.1907, leg. E. Jacobson (ZMAN);

1 ♀. Philippines, Luzon, Manila, leg. McGregor (USNM);

1 ♂. Philippines, Negros, Victorias, 1930, leg. ? (USNM);

1 ♂. Philippines, Negros, Cuernos Mts, leg. Baker (USNM);

1 ♂. Philippines, Leyte, Utap, 10.XI.[19]59, leg. ? (USNM);

1 ♀. Philippines, Mindanao, Kolambugan, 1927, leg. Baker (USNM);

1 ♀. Philippines, N. Palawan, Binaluan, XI.-XII.1913, leg. G. Boettcher (MZHF);

2 ♂♂, 1 ♀. Philippines, Palawan, Brookes Point, Uring Uring, 16.-26.VIII. 1961, leg. Noona Dan Exp. (ZMUC);

1 ♂. Philippines, Palawan, Mt Beaufort, 17.IV.[19]68, leg. Delfinado (USNM);

1 ♀. Philippines, Danakuete, 29.XI.[19]14, (MZHF);

4 ♂♂, 2 ♀♀. Mariani Is, Guam, Yigo, X.1957, leg. Krauss (BPBM);

1 ♀. Palaus, Peleliu, 23.VII.1946, leg. Townes (BPBM);

1 ♂. Palaus Is, Arakabessan I, 18.VII.1946, leg. Townes (BPBM);

1 ♀. Palau Is., Koror, 15.-24.III.1948, leg. Maehler (BPBM);

1 ♂. Palaus Is, Koror, 15.-25.III.1948 (BPBM);

1 ♀. Palau Is., Ngaiangl Atoll, 9.VI.1957, leg. Sabrosky (BPBM);

1 ♂. Samoa, Tutulia, Pago Pago, 0-50 m, IV.1977, leg. Krauss (BPBM);

1 ♀. Tinian I., south end, 11.VI.1946, leg. Townes (BPBM);

1 ♂, 1 ♀. Meek I., 6.X.1969 (BPBM);

1 ♂. Haw. Isls, Maui, Kipalulu Val., 300-500 m, 22.VII.1980, leg. Nishida & Bishop (BPBM);

1 ♂. Haw. Isls, Oahu, Wahiawa Trail, 21.III.1958, leg. Yoshimoto (BPBM);

1 ♂. Haw. Isls, Oahu, Poamoho Trail, 9.III.1964, leg. L. W. Quate (BPBM);

1 ♀. Hawaii Is, Oahu, Kalihi, 5.V.1962, leg. Suehiro (BPBM);

2 ♂♂. Haw. Isls, Oahu, Kalihi Val., 1000-1350', 10.XI.1966, leg. L.W. Quate (BPBM);

1 ♀. Hawaii, Mt. Kaala, 4000', 19.V.1969, leg. Hocking (BPBM);

1 ♂. Haw. Isls, Kauai, Haena, 10.III.1963, leg. Krauss (BPBM);

1 ♂. Haw. Isls, Manoa, Hono, 5. IX.1962, leg. O. Tsuda (BPBM).

Distribution.

The range of *S. aenigmatopatria* covers an area from Indonesia and Vietnam in the west through the Pacific to the Hawaiian islands in the east.

Syritta hackeri Klöcker, 1924

Figs 161, 163, 173, 174.

Syritta hackeri Klöcker, 1924: 59.

S. hackeri Klöcker is a rarely collected species and seems restricted in distribution to eastern Australia and Papua New Guinea. It is the allopatric sister-species to *S. aenigmatopatria* Hardy, and some systematisists would probably prefer to treat them as subspecies of one and the same species. They can easily be separated by several characters in the external morphology as well as in the male genitalia (see the key.

The closest relative of this pair of sister-species may be *S. thompsoni* new species, which is only known from 4 males from Taiwan and a small island near Java. There are further three species, all Afrotropical, in an undoubtedly monophyletic species-group, characterised by the modified hind femora and tibiae: *S. austeni*, *S. leucopleura*, and *S. nigrifemorata*.

The note "rotting banana stem" on the label of a specimen from Alberton (Australia) gives a clue on the larval habitat (see material, and also Ferguson 1926).

Diagnostic characters.

In this species the scutellum has a distinctly different colour from the blackish scutum. The colour of the fore and mid femora is yellowish-brown and not darkened in basal part. The lamina of hind tibia is restricted to the third quarter of the tibia. Tergum 2 has a complete blackish median vitta. Tergum 4 almost entirely black.

Redescription – male.

Face, frons and occiput as described for *S. aenigmatopatria*. The largest facets are smaller than in this species, i.e. c. 50 µm, and the basoflagellomere is larger, in the holotype c. 3.7 x 2.6, arista c. 5.0.

The scutellum is at least leather-brown along posterior margin, markedly distinct from the black scutum. Otherwise thoracic characters, and also wing characters, as in *S. aenigmatopatria*.

Fore and mid femora are entirely yellow-brown, and not darkened at base. Hind femur pale leather-brown; a semicircular ventroapical aerea on both sides is usually darker brown. Males from N. Queensland and Papua New Guinea with a brown-black hind femur as in *S. aenigmatopatria*.

Armature of ventrobasal section of hind femur consisting of the same elements as described for *S. aenigmatopatria*, with the following differences: the 3 or 4 most basal of the anteroventral setulose tubercles are situated on a slightly elevated area, not on a knotty ridge as in *S. aenigmatopatria*, and the posteroventral spina situated at one-third of femoral length is much stronger.

Hind tibia (fig. 161) with an elongate lamina on third quarter; this lamina is rapidly disappearing, leaving apical quarter of the tibia "normal". Distribution of colours as indicated in the figure.

Abdomen shaped as in *S. aenigmatopatria*, but pattern of terga 2 and 3 is different, as tergum 2 shows a complete brown-black median vitta of one-fifth to one-fourth tergal width, measured at middle, the vitta of tergum 3 being incomplete. Tergum 4

Figures 173, 174. Epandrium with appendages of *Syritta hackeri* Klöcker, holotype, Australia, Brisbane. – 173: lateral view; 174: dorsal view.

practically uniformly black, with a slight violet tinge; posterior yellow-brown integument as well as tomentose anterolateral bars practically absent.

Genitalia (figs 173, 174). They are similar to those of *S. aenigmatopatria*, with the following differences (only the holotype was dissected): with fewer, i.e. c. 15, and weaker setae at subbasal lobe of surstylus; also ventral edge of surstylar lobe with black setae; and surstylar apodemes fused for a long distance.

Female.

The frons with a shining brownish callus above frontal prominence; this callus narrowly connected with blackish upper part of frons. Thorax, wings, and fore and mid legs as described for male. Armature of ventrobasal section of hind femur more simple than in male: anteroventrally with a row of 7 or 8 small tubercles, each tubercle carrying a blunt-headed, black setula; the posteroventral armature is reduced to a few minute tubercles, each tubercle with a whitish seta. A female from Wavell Heights (SE Queensland) shows a short posteroventral spina at level of middle of anteroventral row and also a fine subbasal tubercle; see description of male. Anteroventral carina of hind tibia (fig. 163) with a low lamina which makes largest tibial width c. two-fifths of tibial length from apex. Abdomen with same basic pattern as described for male, but width of vitta of tergum 2 difficult to state exactly, as the vitta is very vaguely demarcated. Tergum 4 markedly narrowing towards posterior margin which does not have any strip of paler integument and no tomentum; its anterolateral corners of restricted size and brownish with slight tomentum.

Length: 9-10 mm.

Material examined.

Type material.

Holotype: ♂. Queensland, Brisbane, 12.II.1918, leg. H. Hacker (ZMUC).

Additional material.

1 ♀. Australia, Q.[ueensland], Brisbane, 12.II.1918, leg. H. Hacker (QM);

1 ♂. Australia, Qld. [=Queensland], Hambledon, XI.1921, Pemberton coll. (BPBM);

1 ♀. Australia, Q. [ueensland], Alberton, 15.IX. 1925, leg. J. L. F. [= Ferguson] (QM) [remark: note on label: „Rotting banana stem"];
1 ♀. Australia, S.E. Q., Wavell Heights, 24.XII.1954, leg. I.G. Filmer (QM);
1 ♂. Australia, N. Queensland, Mulgrave R. 7 km W Gordonvale, 18.I.1991, leg. McAlpine & P. Day (AMS);
1 ♂, 1 ♀. Australia, N.S.W., Newport, 21.-28.III.1973, leg. Fonseca (BMNH).
1 ♂. Australia, N.S.W., Willoughby, 7.XII.1975, leg. J. K. McAlpine (AMS);
1 ♂. Australia, N.S.W., Chastwood, 16.III.76, leg. Taylor (AMS);
1 ♀. Papua, Laloki, IV.1909, leg. F. Muir (BPBM);
1 ♀. Papua New Guinea, NE Wau, 1100-1200 m, VI. 1968, leg. N. L. H. Kraus (BPBM);

Distribution.
S. hackeri is only known from Australia (New South Wales and Queensland) and Papua New Guinea.

Bionomics.
Ferguson (1926) reports that the larva was found in rotting banana stems (see material).

Syritta thompsoni new species

Figs 63, 160, 175, 176.

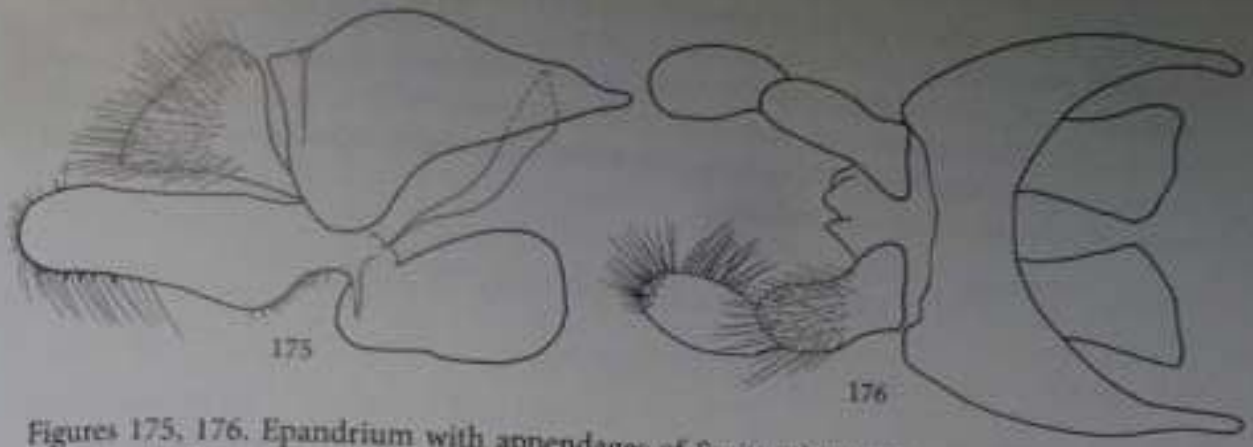
This is a very rare Oriental species (only 4 males are known to us), belonging to a group of 3 Afrotropical and 3 Oriental-Australian-Pacific species. They form an undoubtedly monophyletic group, the synapomorphic characters being modifications of the hind femur (fig. 63) and tibia (figs 157-164).

Diagnostic characters.
The species is distinguished from its congeners by the ventral lamina and deep excavation on the hind tibia and the large ventral knob on the hind femur.

Description – male.
Face with a distinct concavity and covered by rather thin grey-yellow tomentum. Oral margin level with frontal prominence. Eye contiguity c. 4.5. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.5/1.5; tomentum dark grey. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 45 µm. Grey tomentose occipital marks appear in dorsal view, followed by a narrow blackish section of the margin; in posterior view the entire occipital margin is tomentose. Basoflagellomere orange-yellow; size c. 2.5 x 1.9, i.e., small compared to size of species; arista c. 4.0.

Pleura, postpronotum and wide scutal vitta to suture with a thick ash-grey to yellow-grey tomentum. A narrow border of similar tomentum anterior to postalar calli. Remaining part of scutum and scutellum black with a short pale pilosity; one pair of minute setae, c. 60 µm long, visible on scutellum.

Spurious vein as distinct as the regular veins which are coarse and brown-black.



Figures 175, 176. Epandrium with appendages of *Syritta thompsoni* new species, holotype, "Formosa" [Taiwan]. – 175: lateral view; 176: dorsal view.

Stigma pale brownish, and entire wing surface with a pale brownish tinge. Major part of wing distal to cross-vein R-M covered with punctiform microtrichia; with totally bare areas in posterior part of all R-cells and in basal part of cell DM.

Fore and mid femora brownish-black in slightly more than basal half; rest yellowish. Fore and mid tibiae yellowish with a slight darkening of the third quarter of each tibia. Hind femur strongly incrassate, black; ventrobasal profile line concave, short.

Ventrobasal section of hind femur (fig. 63) with a unique armature which is dominated by a large ventral black knob arranged on middle of the femur. Additional armature as follows: anteroventrally a row of 3 or 4 setulae arranged on small tubercles in some distance from profile margin; posteroventrally first a moderately large subbasal tubercle bearing a setula and with a whitish seta next to it; then at one-fourth of femoral length a larger tubercle with a whitish seta of some size, and finally a strong white seta on the posterior surface of the mentioned ventral knob. Ventroapical section of hind femur with the usual armature; posteroventrally with 4 black setae before apex.

Hind tibia (fig. 160) in anterior view with a deep excavation in third quarter of the anteroventral carina; this excavation followed by a tooth-shaped lamina, which connects to an elongate lamina on the posterior side. Colour dark brownish, but yellowish at base, and also a distinctly paler ring on the section with the excavation.

Tergum 1 brown-black posteriorly, with grey-brown tomentum anterolaterally. Terga 2 and 3 yellow, each with a narrow, brownish posterior fascia, that on tergum 3 separated from actual posterior margin by a strip of yellow integument. Tergum 4 in dorsal view has its largest width at middle and is wider than tergum 3; its colour shining brown-black, with a wide strip of yellow-brown integument posteriorly, and minute bars of grey tomentum anterolaterally. Sternum 4 with a regular, deep V-shaped incision.

Genitalia. These are similar to those of *S. hackeri* Klöcker and *S. aenigmatopatria* Hardy. Lateral view of epandrium and its appendages (fig. 175): cercus subtriangular, with a "root"; pile very dense, consisting of thin, pale setae. Dorsal lobe of surstylar wide, wider at base than at apex which is broadly rounded. About 25 short, black, spine-like setulae on ventral median surface of dorsal lobe; the apex of some of these setulae shows. At the same place some very long thin setae. Subbasally, at ventral

margin, a field with c. 20 short black setae. Ventral lobe of surstylus with broadly rounded posterior margin; lobe increasing in width towards anterior margin. Dorsal view (fig. 176): cercus about equally wide throughout, with broadly rounded posterior margin. Dorsal lobe with spoon-shaped apex; some of the black setulae visible as well as short and long pile of fine pale setae. Ejaculatory apodeme with a much larger hood than aedeagal apodeme.

Length: 7-8.5 mm.

Female.
Unknown.

Material examined.
Holotype: ♂. "Formosa [= Taiwan], Pingtung Pref., Oluampi, 18.VII.1968, leg. K. Tsuneki" (USNM).

Paratypes:
1 ♂. Indonesia, "P. Tinjit, Trouwars ailand, zu Java, 28.VI.1955, leg. R. M. R. Wagner" (RMNH);
2 ♂♂. Taiwan, "Kankau (Koshun), Formosa, 7.VIII.1912", leg. H. Sauter (SMF & DEI).

Distribution.
S. thompsoni is only known from Taiwan and Trouwars island near Java.

Etymology.
The species is dedicated to Dr. F. C. Thompson (Washington) in recognition of his major contributions to the knowledge of the Syrphidae.

X. The *orientalis* species-group

We refer to the introduction to the *Syritta nigrifemorata* species-group.

Syritta orientalis Macquart, 1842

Figs 16, 177-179.

Syritta orientalis Macquart, 1842: 136 (76).
? Senogaster lutescens Doleschall, 1856: 410.
? Syritta amboinensis Doleschall, 1858: 97.
Syritta illucida Walker, 1859: 121. New synonym.

S. orientalis is a variable species, especially with regard to colour of the hind femora and of tergum 2. It is a widely distributed species ranging from India and Sri Lanka through Indonesia, continental SE Asia and the Philippines to Australia in the south and the Hawaiian islands in the east (see "Distribution"). The information on the distribution of *S. orientalis* given by Shiraki (1963) must be taken with caution because his *S. orientalis* is a mixture of Macquart's *S. orientalis* and *S. aenigmatopatria* Hardy.

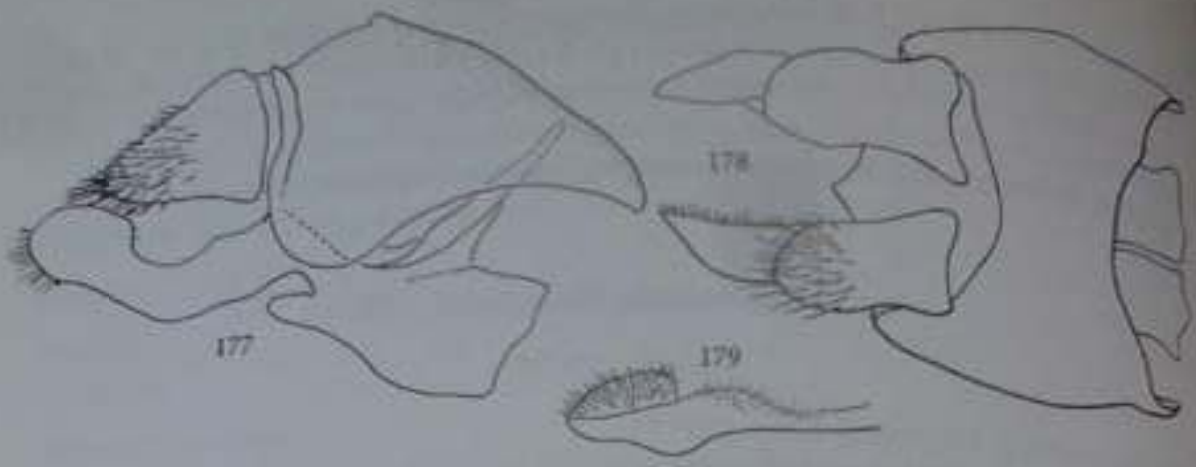
Diagnostic characters.
Among the *Syritta* species occurring within its area of distribution, *S. orientalis* can be distinguished by a combination of the presence of a well sclerotised spurious vein and of a cone-shaped subbasal spina on the posteroventral surface of the hind femur; however, in the female this spina is minute.

The experienced student will also recognise the male sex of *S. orientalis* by its characteristic tergum 4: in dorsal view about as wide as tergum 3, with greatest width about 1/3 of tergal length from posterior margin; side-margins from this point and to posterior margin slightly concave; colour violet-black with yellow-brown strip of integument posteriorly, and anterolateral areas of tomentum very restricted in size.

Redescription – male.
Face almost straight to slightly concave, thinly greyish tomentose. Oral margin level with frontal prominence. Eye contiguity c. 3.5. Vertical triangle ratio between tomentose lower part and blackish upper part c. 3.0/2.0; tomentum ash-grey. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital marks distinct. Basoflagellomere orange-yellow; size c. 2.5 x 1.6; arista c. 4.0.

Tomentum of katepisternum pure grey, of anepisternum, postpronotum and lateral scutum to suture yellowish-grey. A tomentose strip present anterior to the brownish postalar callus. Remaining part of scutum and scutellum deep black with very short pale pilosity. Marginal pilosity of scutellum very weak and pale; one pair of pale or dark setae visible; setae c. 30 µm long.

Regular veins and spurious vein brownish and well marked. Stigma pale brown, often indistinct. Wing surface hyaline. Apical part of wing with a sparse covering of



Figures 177-179. Epandrium with appendages of *Syritta orientalis* Macquart, India, Coimbatore. – 177: lateral view; 178: dorsal view; 179: ventral view of surstylar lobe.

punctiform microtrichia, the best covering found along posterior wing margin and in apical part of cell R2+3.

Fore and mid legs yellowish; middle 1/3 of femora slightly darkened. Hind femur moderately incrassate; ventrobasal profile line straight; colour variable; may be entirely brown-black, or brown-black dorsally and apically with a paler brown coloration on ventrobasal 2/3, or pale brown except for darker brown apex.

Ventrobasal section of hind femur has an anteroventral row of 4 to 6 tubercles, each tubercle with a short black setula; posteroventrally a moderately large cone-shaped subbasal spina which has 1 or 2 small setulae; at level of the most apical of the anteroventral tubercles with an additional tubercle in a more posterior position. Ventroapical section of hind femur with the usual armature which includes 4 or 5 black posteroventral setae before apex; also one long white seta basally to the row of black posteroventrals, plus additional shorter white setae.

Hind tibia with a sharp anteroventral carina; otherwise unmodified and of even width throughout. Colour dirty brown, with an ill-marked paler brown ring, and also pale brown at base.

Tergum 1 (fig. 16) largely brown-black, with yellowish anterolateral areas that are thinly white-grey tomentose. Tergum 2 yellow, with a brown-black posterior fascia occupying only about c. 1/5 of tergal length; also a still narrower anterior fascia. The two fasciae may be totally separated by yellow, or may be connected by an ill-defined shadow of a vitta, or by a more well-defined, but narrow, black-brown vitta. Posterior fascia of tergum 3 may occupy c. 1/3 of tergal length and tergum 2 may or may not show a median vitta. Tergum 4 about as wide as tergum 3, greatest width occurs one-third before posterior margin, and posterior third of the side-margin is distinctly concave in dorsal view; anterolateral areas of tomentum are of a very restricted distribution, often hardly visible; posterior margin may show brownish integument. Sternum 4 with a characteristically very narrow and deep incision.

Genitalia. Lateral view of epandrium and its appendages (fig. 177): cercus elongate-triangular, with fine pilosity. Dorsal lobe of surstylus upcurved, terminating in an apical plate the dorsal margin of which is somewhat medially directed. Median surface of this plate covered by short setae which may be pale or partly blackish. Also

with very fine pilosity on basal stem. A short lobe may be present on posterior part of ventral lobe of surstylus, but is absent in two Indian specimens examined. Dorsal view (fig. 178): cerci short and broadly rounded apically. The slightly twisted apical plate of the dorsal surstylar lobe with its dense pilosity visible. Surstylar apodemes separate. Ejaculatory apodeme with a large hood. The theca has a strong subbasal ventral concavity not observed in other species.

Female.
Face as in male. Frons with a ratio between tomentose lower part and blackish upper part of c. 4.0/4.5; the blackish part with a pair of tomentose areas that may touch in mid-line. Thorax, wings, and legs as described for male, but the posteroventral subbasal spina is much smaller. Tergum 2 with a well-marked, almost parallel-sided blackish median vitta of c. one-sixth of tergal width. Tergum 4 gradually narrowing towards posterior margin; its colour violet-black with a yellow-brown strip of integument posteriorly, and with large greyish tomentose anterolateral areas that extend along side-margin beyond middle of the segment.

Length: 5-8 mm.

Material examined.
Type material.
Syritta orientalis Macquart.
Holotype: ♂. Old handwritten label of "No. 1201 / *Syritta* / *orientalis*". Old handwritten label (not same handwriting as above) with "Pondicheri". Red label with "TYPE / Vockeroth 69". Condition: the head, wings, legs and abdomen (with partly dissected genitalia) intact. Has been restored with glue. Genitalia exposed. Length of holotype c. 5 mm (MNHN).

Syritta illucida Walker.
Holotype. ♀. Old, round, handwritten label: "Mak." [= Indonesia. Maluku: "Celebes" = Halmahera Island]. Old, elongate label: "*illucida*" in Walker's handwriting. Younger, handwritten label: "*Syritta* / *illucida* Wlk.". Round, blue-margined printed/handwritten label: "Type". Round, red-margined printed/handwritten label: "Holotype". Condition: Both aristae missing; head glued; right hindleg and parts of other legs missing; from abdomen segment 4 missing (BMNH).

Additional material.
We have examined c. 175 specimens of *S. orientalis* from various museums, and present a summary of the distribution below.

Distribution.
This species is widespread in the Oriental-Australian-Pacific regions including India (Calcutta, Coimbatore); Sri Lanka (Haragama, Trincomali Hot Wells); Thailand (Krabi); Indonesia (N. Borneo, Java, Bali, Ambon); Malaysia (Pahang Distr.); Vietnam; Taiwan; Philippines (N. Palawan, Luzon); New Guinea area (Irian Jaya, Papua New Guinea, New Britain, New Ireland); Australia (Northern Territory, Queensland, Western Australia); Solomon Is. (Guadalcanal, Kolombangara I.); New Caledonia; Caroline Is (Truk, Yap Group); Guam; Koror, Fiji Is. (Viti Levu); Palmyra I.; Garakaya I.; Hawaii Is. (Hawaii, Maui, Oahu, Kavai).

XI. The *oceanica* species-group

We have recognised 16 species of *Syritta* in which the spurious vein is just a shadow, is a thin incomplete line, or is undiscernable (see keys). These 16 species probably represent at least six clades. With the exception of *S. stylata* new species from India, which we have included as a terminal taxon in the *S. pipiens* species-group, we have established five species-groups to contain the known species in the other clades.

The *S. oceanica* species-group with five species is treated as the first of these species-groups, and will be followed by treatments of the *S. vitripennis* species-group with four species, the *S. flaviventris* species-group with three species, the *S. dilatata* species-group with one species, and the *S. latitarsata* species-group with three species.

We regard the *S. oceanica* species-group to be the most plesiomorphous of these species-groups: the katepisternum is uniformly tomentose; tergum 2 has the ground pattern composed of an anterior and a posterior fascia connected by a more or less parallel-sided median vitta (see figs 17, 18), and the male genitalia possess relatively simple dorsal surstylar lobes and simple cerci.

The species-group contains two very rare Afrotropical species (*S. londti*, *S. albopilosa*) and three Australian-Pacific species (*S. luteinervis*, *S. oceanica*, *S. papua*), two of which are widely distributed.

Syritta londti new species

Figs 180, 181.

Only one male specimen from northern KwaZulu-Natal (South Africa) is known of this interesting species that represents a species-group characterised by plesiomorphous character states; see the introduction to the species-group.

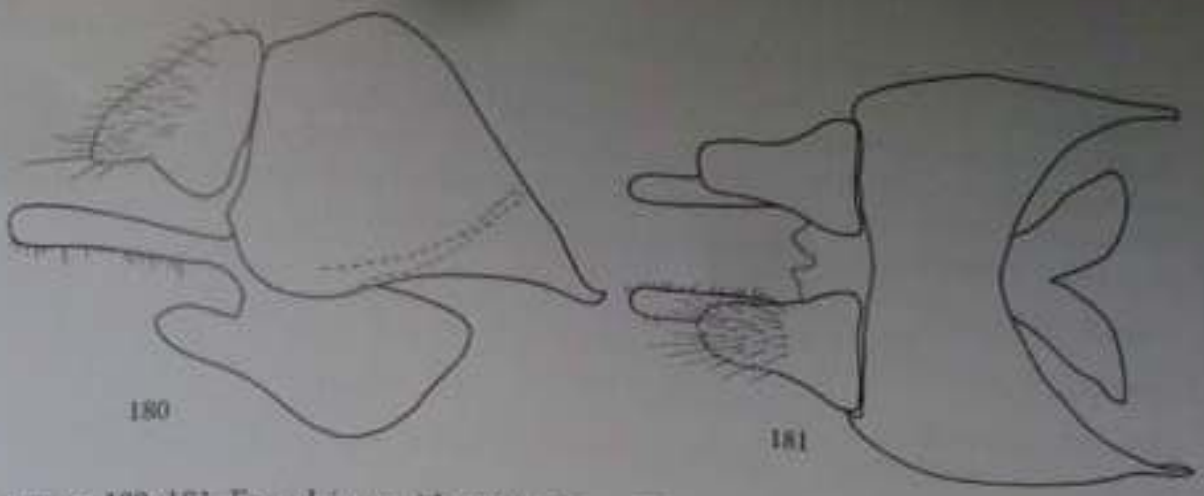
Diagnostic characters.

A combination of an indistinct spurious vein, a uniformly greyish tomentose katepisternum, and a narrow vitta on tergum 2 characterises *S. londti* new species and *S. albopilosa* new species. *S. londti* can be distinguished from *S. albopilosa* in having only an elevated area subbasally on hind femur, a narrower vertical triangle with less tomentum, and a narrow and indistinctly demarcated vitta on tergum 2.

Description – male.

Face with a moderate concavity; its tomentum silvery-grey, but lower third of carina blackish. Oral margin projecting beyond frontal prominence. Eye contiguity c. 2.0. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 2.6/1.2; tomentum ash-grey. Anterior ocellus separated from eye-margins by a distance equal to width of ocellus. Largest facets c. 40 µm. Upper occipital margin semishining blackish. Vertex with long pale pilosity. Basoflagellomere blackish, dark red-brown baso-ventrally; size c. 3.0 x 1.8; arista c. 3.8.

Pleura, postpronotum, and scutal vitta to suture covered by rather dark grey to



Figures 180, 181. Epandrium with appendages of *Syritta londti* new species, holotype, South Africa, KwaZulu-Natal. – 180: lateral view; 181: dorsal view.

mentum, scutal vitta sharply demarcated from the shining black remaining part of scutum, and with a strongly concave dorsal margin. Mesonotal pile moderately long and pale; scutellum also with one rather strong black seta, c. 125 µm long, that probably represents a marginal pair.

Spurious vein indistinct. Regular veins brownish in basal and apical parts, darker apically and posteriorly. Stigma pale yellow. Wing surface hyaline and with a very sparse provision of microtrichia.

Fore and mid legs uniformly yellow-brown. Hind femur moderately incrassate, bicoloured: yellow-brown in basal 3/4, dark brown in apical 1/4; ventrobasal profile line slightly concave.

Ventrobasal section of hind femur with a slightly elevated subbasal area on posteroventral surface; this area carries 3 small setulae. On ventral and anteroventral surfaces with c. 15 small to very small setulae which are randomly spread and either sharp-tipped or blunt-tipped; the largest of them placed on tubercles. Ventroapical section of hind femur with the usual armature, which includes 4 black posteroventral setae before apex.

Hind tibia of almost equal width, and with the usual anteroventral carina. Colour pale yellow at base, yellow-brown in a band around middle, and dark brown basally and apically of this band. Hind basotarsomere symmetric, longer than tarsomeres 2 and 3 together.

Tergum 1 blackish with greyish tomentose anterolateral areas. Tergum 2 largely yellow-brown, as the blackish anterior fascia is very narrow, the blackish posterior fascia also relatively narrow, and the median vitta very narrow and indistinctly demarcated. Tergum 3 without any median vitta, but only a posterior fascia occupying about 1/3 of the tergum. Tergum 4 narrower than tergum 3, brownish-black to black, with narrow bars of tomentum anterolaterally; the bars not spreading along side-margin, and posterior margin of tergum without paler integument or tomentum. Sternum 4 with a deep incision; the lumen is covered by a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 180): cercus short, subtriangular, with a marked concavity on ventral margin; pile pale and very fine. Dorsal lobe of surstylus a simple slender rod that becomes slightly wider towards

apex. A sparse pile of stiff black setulae present on median surface; the apex of some setulae visible along ventral margin. Ventral lobe of surstylus with a prominent posterior process and anteriorly strongly increasing in width. Dorsal view (fig. 181): cercus wide at base, with concave margins, and a broadly rounded apex. Apical part of dorsal surstylar lobe with its sparse pilosity visible. Surstylar apodemes fused. Ejaculatory apodeme with a larger hood than the aedeagal apodeme.

Female. Unknown.

Length: c. 7 mm.

Material examined.
Holotype: ♂. South Africa, Natal, Umtamvuna Nature Reserve, SE 3030 CC, 23.-27.III.1985, leg. J. G. H. Londt, open grass forest margin (NMSA).

Distribution.
The only known specimen was collected in the northern part of the South African province of KwaZulu-Natal.

Etymology.
The species is named after the former director of the Natal Museum (Pietermaritzburg), Dr. J. G. H. Londt, who collected the holotype.

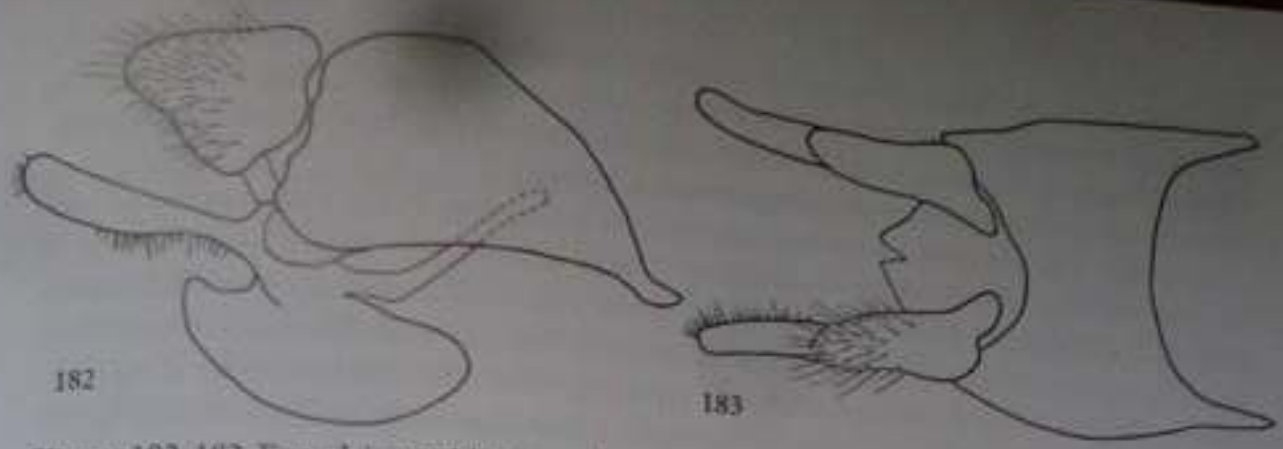
Syritta albopilosa new species

Figs 32, 70, 182, 183.

Syritta vitripennis Bigot, 1885: 248 – Smith & Vockeroth, 1980: 507; p.p., the Tanzania record.

A small series of one male and two female specimens of a *Syritta* species collected in SE Arusha in Tanzania in 1952 was misidentified, first by Lindner as *S. nigrofemorata* [sic!] Macquart and later by Vockeroth as *S. vitripennis* Bigot. We have shown that Macquart's *S. nigrifemorata* belongs in a group of species with a well sclerotised spurious vein and modified hind tibiae. *S. vitripennis* belongs to a species-group with an indistinct spurious vein (as *S. albopilosa*), a partly blackish, non-tomentose katepisternum, and a broad, column-shaped black pattern on tergum 2. On the basis of this small series we are describing *S. albopilosa* new species, and have placed it in the *S. oceanica* species-group of five species. These species probably represent relatively plesiomorphous forms having katepisternum uniformly tomentose and tergum 2 pattern composed of anterior and posterior fasciae and a relatively narrow median vitta.

Diagnostic characters.
S. albopilosa new species and its sister-species, *S. londti* new species are separated from the other Afrotropical *Syrittas* by the combination of an indistinct spurious vein, a uniformly tomentose katepisternum, and a relatively narrow vitta on tergum 2. The frons in both sexes of *S. albopilosa* (figs 32, 70) is wider and more extensively tomentose than in *S. londti*; the blackish hind femur has a subbasal tuberculate spi-



Figures 182, 183. Epandrium with appendages of *Syritta albopilosa* new species, holotype, Tanzania, SE Arusha. – 182: lateral view; 183: dorsal view.

na, whereas *S. londti* only has a slightly elevated area in this position. The long pale mesonotal pile is remarkable.

Description – male.

Face markedly concave; its tomentum pure grey but oral margin non-tomentose. Oral margin projects well beyond level of frontal prominence. Eye contiguity c. 2.0. Vertical triangle (fig. 32): ratio between tomentose lower part and blackish upper part is c. 4.5/0,6; tomentum pure grey. Anterior ocellus separated from eye-margins by a distance c. 1.5 x width of ocellus. Largest facets c. 40 µm. Upper occipital margin brown-black, without pale tomentose marks. Vertex with long pale pilosity. Basoflagellomere blackish; size c. 4.0 x 2.3; arista c. 4.5.

Tomentum of pleura, postpronotum and lateral scutum to suture pure ash-grey with a silvery shine; dorsal margin of scutal vitta concave, sharply delimited from remaining part of scutum which is deep black and has a remarkably long, pale pilosity; setal length c. 125 µm. Scutellum similarly coloured and pilosed, along posterior margin 6 minute black setae c. one-third as long as the pale setae on disc.

Spurious vein indistinct. Regular veins thin, yellowish-brown in basal and anterior parts of wing, darker brown apico-posteriorly. Wing surface hyaline. Stigma very indistinct. Microtrichia very sparse and punctiform; regular microtrichia only present at extreme apex.

Fore and mid femora brownish in about basal third, yellow-brown in apical two-thirds. Fore and mid tibiae yellow-brown. Hind femur moderately incrassate, black; ventrobasal profile line straight.

Ventrobasal section of hind femur with a subbasal tuberculate spina in posteroventral position; the spina with a couple of small setulae. Further towards apex of section 6 to 8 small tubercles, each with a setula. Ventroapical section of hind femur with the usual armature; 5 black posteroventral setae before apex.

Hind tibia unmodified except for the usual anteroventral carina. Its colour dark brownish, yellow-brown at base and in ring after middle. Hind basotarsomere symmetric and longer than tarsomeres 2 and 3 together.

Tergum 1 coal-black, anterolateral areas being grey-brown tomentose. Terga 2 and 3 appearing very dark yellow-brown on lateral areas; both terga with a black posterior fascia, tergum 2 also with a median vitta of c. one-fifth tergal width, and an-

teriorly a narrow fascia. Tergum 4 slightly wider than tergum 3, shining blackish, narrowly brownish posteriorly; tomentose anterolateral areas fading out at middle of side-margin. Sternum 4 with a deep incision, its anterior part covered by a membrane; rather strong pale setae along anterior margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 182): cercus irregularly triangular, with broadly rounded corners; a solid "root" present. Dorsal lobe of surstylus a simple rod which is wider in apical two-thirds than at base. Pile mainly present on ventral median surface of basal half. Ventral surstylar lobe with a short wide upcurved hook posteriorly. Dorsal view (fig. 183): the rather slender cerci partly covering the much longer dorsal surstylar lobes. Surstylar apodemes not visible because of the relatively long dorsal extension of epandrium. Ejaculatory apodeme with a very large hood compared to that of the aedeagal apodeme.

Female.

Face as in male. Frons (fig. 70) with a ratio between tomentose lower part and blackish upper part of c. 4.0/4.5; tomentum of lower part silvery-grey; only small indistinctly marked areas of tomentum on blackish part. Frons very wide: anterior ocellus separated from eye-margins by a distance almost 2x width of ocellus. Basoflagellomere even larger than in male: c. 4.5 x 3.0. Pleura and scutum patterned as in male, and pale mesonotal pile appears even longer than in male. Wings and legs as described for male. Abdomen wider than in male, median vitta of tergum 2 being c. one-third as wide as tergal width. Tergum 4 black, with yellow-white tomentose anterolateral areas which laterally occupy less than half of tergal side-margin; posterioly a strip of brownish integument margined with yellow-white tomentum.

Length: c. 8 mm.

Material examined.

Holotype: ♂. Tanzania, Usangi, Pare Gebirge [mountains], [SE Arusha], 5.VI.1952, D.O. Afrika Exp. [= Deutsche Ostafrika Expedition] (SMNS).

Paratypes:

1 ♀, same data as holotype;

1 ♀, same locality as holotype, but dated "25.V.-8.VI.1952", both D.O. Afrika Exp. [Deutsche Ostafrika Expedition] (SMNS).

Both female paratypes identified as *Syritta vitripennis* Big. by J. R. Vockeroth, 1980. The first listed paratype is also labelled with "Comp. with ♂ T. of *Syritta vitripennis* Bigot / Vockeroth 74". All three type specimens bear also labels with "*Syritta nigrofemorata* Mac. / Lindner det."; these labels were attached before Vockeroth's examination of the specimens. It is doubtful whether the holotype of *S. albopilosa* new species was examined by J. R. Vockeroth.

Distribution.

S. albopilosa has so far only be found in mountainous northern Tanzania.

Etymology.

The name refers to the whitish elongate mesonotal pilosity.

Syritta luteinervis de Meijere, 1908

Figs 17, 33, 73, 184, 185.

Syritta luteinervis de Meijere, 1908: 226.

We suggest that the two non-Afrotropical species, *S. luteinervis* de Meijere and *S. oceanica* Macquart, should be regarded as the sister-group of the two very rare Afrotropical species, *S. londti* new species and *S. albopilosa* new species.

Some authors have synonymized *S. luteinervis* with *S. oceanica*, but we have found no difficulty in separating them, and as the two taxa have allopatric distributions, we shall keep them as distinct species.

Diagnostic characters.

Easily distinguished by the hyaline wings that have translucent veins, no indication of a spurious vein, a pale yellow stigma, and a poor provision with microtrichia apically. The tomentum of face, lower frons, and pleura pure grey. Tergum 2 with a restricted dark pattern compared with *S. oceanica* Macq.

Redescription – male.

Face concave, pure greyish tomentose. Oral margin projecting beyond level of frontal prominence. Eye contiguity c. 3.0. Vertical triangle (fig. 33): ratio between tomentose lower part and blackish upper part c. 3.0/1.5; tomentum pure ash-grey. Distance between anterior ocellus and eye-margins shorter than width of ocellus. Largest facets c. 35 µm. Greyish upper occipital marks distinct. Basoflagellomere red-brown; a narrow blackened margin present from arista along dorsal margin and around apex; size c. 3.0 x 2.2; arista c. 4.2.

Tomentum of pleura, postpronotum, and lateral scutum to suture uniformly greyish. Subapical pair of marginal setae black, minute, c. 25 µm in length. Mesonotal pile whitish.

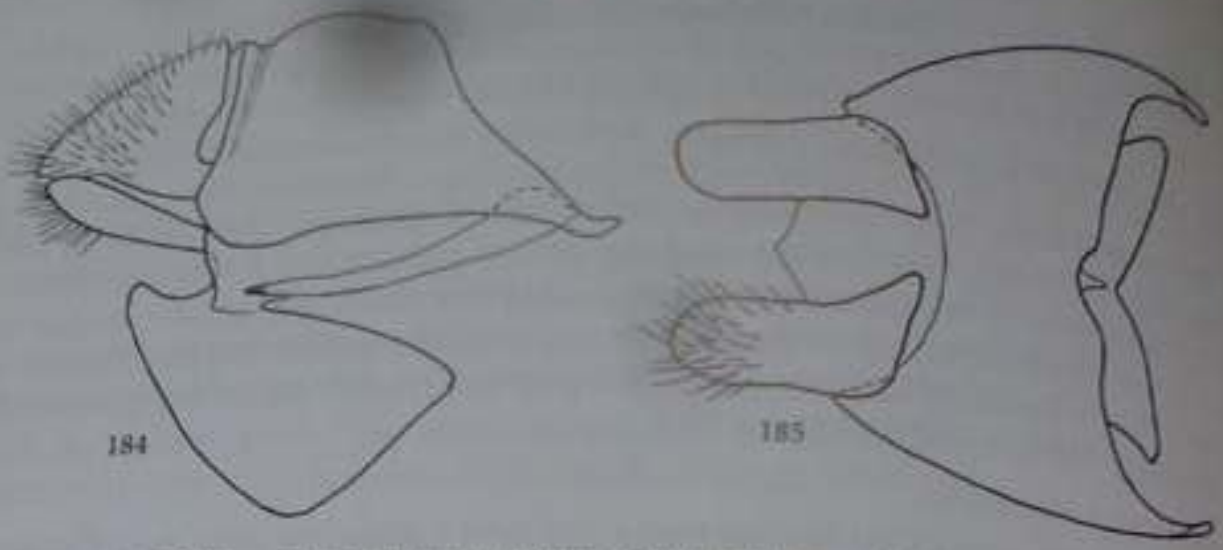
Spurious vein indistinct. Regular veins thin, pale brownish, at base of wing as if formed by two black lines. Stigma indistinct, pale yellowish. Microtrichia of apical part of wing punctiform and very sparsely distributed.

Fore and mid legs yellowish, the femora dark brown in basal fourth to third. Hind femur relatively slender, ventrobasal profile line slightly concave; colour unicolorous brownish-black.

Ventrobasal section of hind femur with a broadly based, cone-shaped subbasal spina with 2 or 3 small black setulae on its apex. Also with a row of 4 or 5 short black setulae arranged obliquely on minute tubercles. Ventroapical section of hind femur with the usual armature, including 4 black posteroventral setae before apex.

Hind tibia of "normal" shape, in lateral view with its largest width less than 200 µm. Colour dark brown, with pale brown base and a pale brown ring around middle. Hind basotarsomere symmetric and longer than combined length of tarsomeres 2 and 3.

Tergum 1 (fig. 17) with large brown-black spot, leaving anterolateral areas yellow-white tomentose. Tergum 2 yellow with a very narrow parallel-sided brown-black anterior fascia, a similarly coloured vitta of c. one fourth tergal width, and a broad brown-black posterior fascia. Tergum 3 yellow with a broad brown-black posterior



Figures 184, 185. Epandrium with appendages of *Syritta luteinervis* de Meijere, Australia, Brisbane. – 184: lateral view; 185: dorsal view.

fascia, and a similarly coloured vitta which does not reach anterior margin. Tergum 4 slightly wider than tergum 3, shiny reddish-brown to brown-black, palest anteriorly and posteriorly, and with extensive anterolateral areas of whitish tomentum. Sternum 4 with a deep, V-shaped incision, which is partly covered by a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 184): cercus triangular, with "root". Dorsal lobe of surstylus short, simple, slightly wider towards apex which does not overhang apex of cercus; pilosity weak and arranged on median surface of distal part. Ventral lobe of surstylus with a posterior projection. Dorsal view (fig. 185): the broadly rounded, parallel-sided cerci completely covering the surstylar lobes. Surstylar apodemes fused for a short distance. Ejaculatory apodeme with a large hood.

Female.

Face and projection of oral margin as in male. Frons (fig. 73) distinctly different from that of the closely related *S. oceanica* Macquart; ratio between tomentose lower part and blackish upper part is c. 5.0/4.0; the pair of tomentose spots on upper part are of variable size; very few species have a tomentose part that is longer than the blackish part. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. The basoflagellomere is usually more extensively blackish than in male. Thorax, wings, and legs as in male, the posteroventral subbasal spina of hind femur not appearing weaker, as it is often the case in other species.

The abdomen with a more distinctly marked black pattern than in male. Terga 2 and 3 may have large antero-lateral areas of yellow-brown integument, but may also be nearly all black with only traces of yellow-brown most laterally on tergum 2. Characteristic for the species, and also for *S. oceanica* and *S. papua* new species, is an equally wide vitta of thin white-grey tomentum stretching along lateral margin from abdominal base to anterior corner of posterior fascia on tergum 2 (with abdomen viewed in a dorso-lateral view). Such a vitta is not present in the females of other species in the region. Terga 3 and 4 with triangular anterolateral areas of tomentum. Tergum 4 narrower than tergum 3, gradually tapering from base to one-fifth before

apex; then suddenly constricted into a narrow posterior section, the posterior margin of which is yellowish to a variable extent.

Length: c. 6-8 mm.

Material examined.

Type material.

Type(s) in the Budapest Museum lost. A well preserved male specimen in ZMAN is labelled "♂ [!], N. Guinea / Biró 96 / "Friedrich-/Wilh.hafen" "47" "39." "*Syritta* / *luteinervis* / det. de Meijere. / Cotype" [handwritten except third line, de Meijere] "*Syritta* / *luteinervis* / de Meijere, 1908 / ZMAN type DIPT.1014.1". We regard this specimen as a syntype, designate it as a lectotype and have labelled it accordingly.

Other material.

1 ♂. Papua New Guinea (NE), Mt. Piora, 6'45" S, 146' E, 1650 m, 12.IV.1966, leg. Wilken (BPBM);
1 ♂, 1 ♀. Papua New Guinea (NE), Simbai, 1600-1800 m, X.1968, leg. Krauss (BPBM);
1 ♀. Papua New Guinea (NE), Okapa, 64 km S. of Kainantu, 1800 m, 29.IX.1959, leg. Maa (BPBM);
1 ♂. Australia, WA, Wembley Downs (Perth), 1.III.2001, leg. O. Mueller (WAMP);
1 ♂ Australia, WA, Greenwood (Perth), 24.I.1977, leg. Kendrick (WAMP);
1 ♀. Australia, WA, Cottesloe (Perth), 26.IV.1987, leg. McMillan (WAMP);
1 ♀. Australia, WA, nr New Norcia, 16.III.1962, leg. Douglas (WAMP);
1 ♀. Australia, WA, Perth, 6.III.1978, leg. Easton (WAMP);
1 ♂, 1 ♀. Australia, WA, Bibra L., 22.III.1968, leg. Boyes (ZMAN);
1 ♀. Australia, NSW, 4 km NE Harrington, litoral rainforest, 6.XI.1991, leg. Williams (AMS);
1 ♀. Australia, NSW, Blue Mountians, Wentworth Falls, 2.II.1957, leg. McAlpine (AMS);
1 ♂. Australia, NSW, Amosfield, 15.XII.1969, leg. Ashby (ANIC);
1 ♂. Australia, NSW, [exact locality:] ?, leg. ? (ZMUC);
1 ♂. Australia, N. Qld, Canal Creek nr. Russell River, 25.V.1958, leg. McAlpine (AMS);
1 ♂. Australia, Qld, Bundaberg, 17.X.1974, leg. Frauca (ANIC);
2 ♀♀. Australia, Qld, Warraber I. (Sue), 9.XII.1978, leg. Edwards (ANIC);
1 ♀. Australia, Qld, N. Bundaberg, 6.III.1972, leg. Frauca (ANIC);
1 ♀. Australia, Qld, Bundaberg, IX.1971, leg. Frauca (ANIC);
1 ♀. Australia, Qld (SE), Beerburrum, 9.IX.1971, leg. Dahms (ANIC);
1 ♂. Australia, Qld, Brisbane, 24.II.1912, leg. Hacker (ZMUC);
1 ♂. Australia, Qld, Brisbane, 15.II.1916, leg. Hacker (ZMUC);
2 ♂♂. Australia, N.T., Nourlangie Ck. 8 km N of Mt. Cahill, 16. & 17.VI.1973, leg. Colless (ANIC);
1 ♀. Australia, NT, Jabaluka Lagoon, 14 km N Mudginbarry, 14.XI.1972, leg. Colless (ANIC);
2 ♂♂. Vanuatu ["New Hebrides"], Aneityum, XI.1930, leg. Chessman (1 ♂: BMNH; 1 ♂: CNC);
1 ♂. Vanuatu, Maewo I., Kerepei, XII.1983, leg. Krauss (BPBM);
1 ♂, 1 ♀. New Caledonia, N, Puebo, 0-1500 ft., 1949, leg. Chessman BMNH);

1 ♂. New Caledonia, Poüebo, 11.I.1964, leg. Straatman (BPBM);
7 ♂♂, 10 ♀♀. New Caledonia, Noumea, 22.-23.XI.63, leg. Straatman (BPBM);
1 ♂. New Caledonia, Noumea, 23.-26.II.63, leg. Straatman (BPBM);
2 ♂♂, 3 ♀♀. New Caledonia, Anse Vata, 25.X.-2.XI.1958, leg. Joyce (BPBM);
1 ♂. New Caledonia, Ponerihoven, 7.II.1962, leg. Krauss (BPBM);
1 ♂. New Caledonia, Bourail, III.1959, leg. Krauss (BPBM);
1 ♀. New Caledonia, Canala, 11.XI.1958, leg. Joyce (BPBM);
1 ♀. New Caledonia, La Crouen, 150-250 m, II.1973, leg. Krauss (BPBM);
7 ♂♂, 11 ♀♀. Loyalty Is, Ouvéa, Fayaoue, I.1969, leg. Krauss (BPBM);
1 ♂. Solomon Is, Guadalcanal, I.1921, leg. Kusche (BPBM);
1 ♂. Solomon Is, Malaita, Auki, 22.IX.1957, leg. Gressitt (BPBM);
1 ♀. Solomon Is, Malaita, 6 km N Auki, 60 m, 3.VI.1964, leg. Sedlaček (BPBM);
9 ♂♂, 4 ♀♀. Solomon Is, Santa Ysabel, Tamatahi, 450 m, 3.VII.1960, leg. O'Brien (BPBM);
1 ♂. Solomon Is, New Georgia Group, Gizo I., 30 m, 19.VII.1964, leg. Sedlaček (BPBM);
1 ♂. Solomon Is, Florida Group Gairava, 14.IX.1960, leg. O'Brien (BPBM);
1 ♀. Solomon Is, San Cristóbal, Kira-Kira, 0-50 m, 10.XI.1964, leg. Straatman (BPBM);
1 ♀. Solomon Is, Bougainville S., Kieta, 28.XI.1959, leg. Maa (BPBM);
3 ♀♀. Solomon Is, Rennell, Niupani, 22.-24.VIII.1962, leg. Noona Dan Exp. (ZMUC).

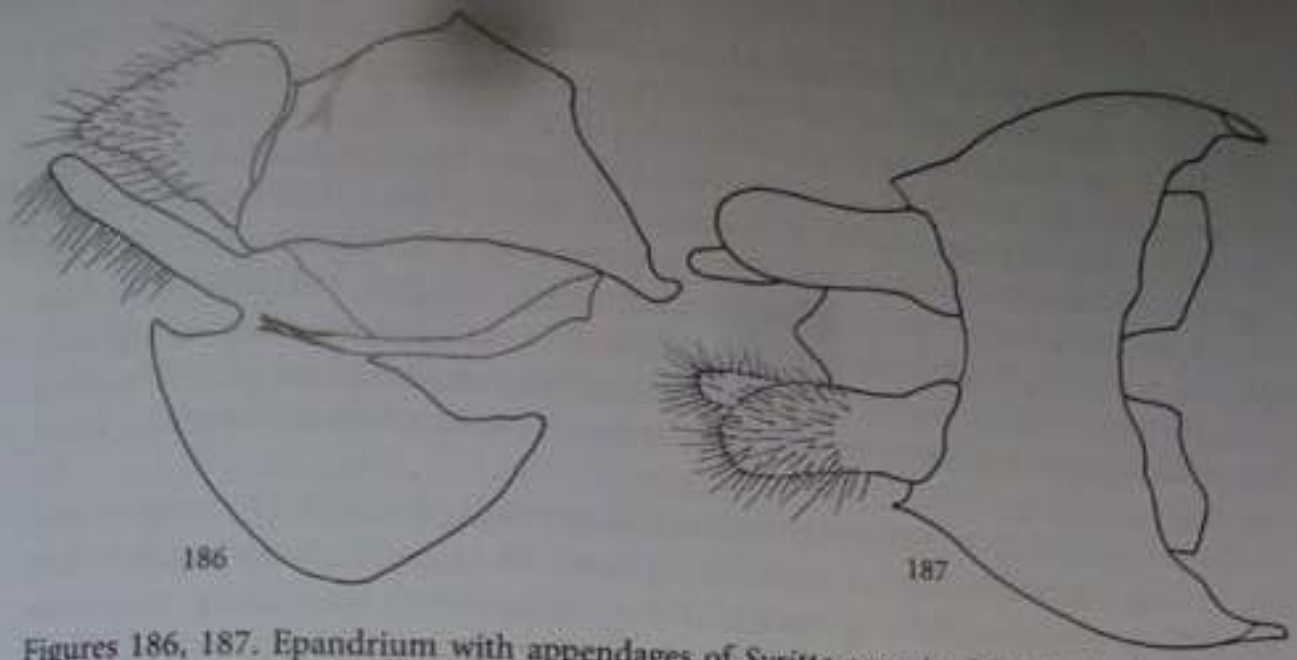
Distribution.
The distribution of *S. luteinervis* de Meijere seems restricted to Australia and islands in the South West Pacific, and reaches to c. 170° E. It can be summarised as follows: Australia (Western Australia, New South Wales, Queensland, Northern Territory); New Caledonia; Loyalty Is (Ouvéa); Vanuatu; Solomon Is (Rennell, San Cristóbal, Malaita, Guadalcanal, Santa Isabel, Florida Group, New Georgia Group); Papua New Guinea (Bougainville, New Guinea).

Syritta oceanica Macquart, 1855

Figs 18, 34, 71, 186, 187.

Syritta oceanica Macquart 1855: 112 (92).
Syritta occanica Macquart, 1855: 92, misspelling.

Some authors, such as Shiraki (1963) and Hardy (1964), have treated *S. luteinervis* de Meijere as a junior synonym of *S. oceanica* Macquart. We have found that the characteristic wing pattern, and also differences in the male and female frontal pattern (see figs 33 and 34) distinguish the two taxa; see also the keys. On the other hand, the male genitalia (figs 184, 185 and 186, 187) are probably not distinctive enough to secure a safe separation. The two taxa represent allopatric sister-species, *S. oceanica* being distributed from the Austral Islands over the Cook Islands, the Marquesas Islands and the Society Islands to the Hawaiian Islands, i. e. the south-central and central parts of the Pacific, whereas *S. luteinervis* is distributed in the south-western Pacific, including Australia.



Figures 186, 187. Epandrium with appendages of *Syritta oceanica* Macquart, French Polynesia, Ruruta. – 186: lateral view, 187: dorsal view.

Diagnostic characters.
It can be separated from its sister-species, *S. luteinervis* de Meijere, by the wings, which have a brownish tinge, their apical part having a dense cover of microtrichia; at the position of the spurious vein is a shadow composed of elongate brownish microtrichia; stigma dark brown. Tergum 2 with an extensive blackish pattern. The tomentum of face, lower frons, and pleura is yellowish-grey.

Redescription – male.
Face concave, golden-grey tomentose. Oral margin slightly projecting beyond frontal prominence. Eye contiguity c. 2.5. Vertical triangle (fig. 34): ratio between tomentose lower part and blackish upper part is c. 5.0/1.0; tomentum on lower part with the same yellow-grey tinge as on face. Largest facets c. 35 µm. Upper occipital margin with grey-brown tomentum. Basoflagellomere dark red-brown to almost black; size c. 3.0 x 2.2; arista c. 4.0.

Tomentum of pleura, postpronotum, and lateral scutum to suture unicolorous yellowish-grey. Marginal subapical scutellar setae may be pale and/or blackish, and are up to 80 µm long. Mesonotal pile pale brownish.

Veins black. Spurious vein not appearing like the regular veins, but merely as a brown shadow; its appearance is strengthened by presence of elongate microtrichia. Stigma dark brown. Whole apical part of wing with a uniform cover of distinct microtrichia, without any bare streaks. Wing surface usually has a smoky appearance.

Fore and mid legs yellow-brown, with femora brown-black for at least basal third, but often by as much as two-thirds or more. Hind femur relatively slender, ventrobasal profile line distinctly concave. Colour shining blackish.

Ventrobasal section of hind femur with a large, broad-based, cone-shaped subbasal spina which has 2 or 3 black setulae. Also with 4 to 8 minute tubercles in an irregular row, each tubercle with a minute black setula; 2 setulae side-by-side may be present. Ventroapical section of hind femur with the usual armature; 4 or 5 posteroventral setae before apex.

Hind tibia brownish, pale brown at base and in a ring around middle. Anteroventral carina with a low lamina c. one-fourth before apex; maximum tibial width thus c. 250 µm. see *S. luteinervis*.

Tergum 1 (fig. 18) black, anterolateral areas tomentose. Tergum 2 with a large, hourglass-shaped pattern of black, leaving only relatively small lateral areas yellow. Tergum 3 with a broad black posterior fascia and a median vitta of one-third tergal width, the vitta hardly reaching the anterior margin. Tergum 4 slightly wider than tergum 3, shining black, with large anterolateral tomentose areas which along side-margins reach halfway towards posterolateral corners; posterior margin often with a brownish integument. Sternum 4 as in *S. luteinervis*, with a similar triangular membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 186): cercus irregularly triangular, with a "root". Dorsal lobe of surstylus a simple, almost parallel-sided rod slightly projecting beyond apex of cercus; covered with setae along most of its ventral surface. Ventral lobe of surstylus large, sharply projecting posteriorly. Dorsal view (fig. 187): cerci nearly parallel-sided, broadly rounded at apex where the extreme apex of the dorsal surstylar lobes are visible. Surstylar apodemes broadly separated. Ejaculatory apodeme with a large and well pigmented hood.

Female.

In this sex, *S. oceanica* is easily recognised by the unique frontal pattern (fig. 71): entire upper two-thirds to four-fifth of frons shining black, in some specimens with a pair of very weakly developed spots of tomentum. The lower part of frons is yellow-grey tomentose, the tomentum stretching dorsally along eye-margins. The characters of the thorax, wings and legs as in male, hind tibia possessing the same low lamina anteroventrally.

Abdomen almost totally shining black, only tergum 2 with some yellow-brown colour mid-laterally. As in *S. luteinervis*, there is a tomentose lateral vitta from base of abdomen to anterior corner of the posteror fascia of tergum 2. Terga 3 and 4 black with grey-brown tomentose anterolateral areas.

Length: c. 7.5-9 mm.

Material examined.

Type material.

Syntypes: Two ♀♀ are present in the Oxford University Museum of Natural History. Both are in reasonable good condition and are labelled as "Syntype", and "*S. oceanica* / ex Coll. Bigot". One of the specimens also has an old handwritten label with "*Syritta* / *oceanica* / ♀ Macq. n. sp.". They are conspecific and easily recognised as belonging to the species treated here under the name of *Syritta oceanica* Macquart. The label in the drawer reads "*S. oceanica* ♀ / Nov. Zeland. / Macq.".

Additional material:

1 ♂. Cook Is, Mitiaro I., Takave, 0-30 m, II.1979, leg. Krauss (BPBM);
1 ♂. Cook Is, Rarotonga, Titi Kaveka, 0-100 m, XII.1977, leg. Krauss (BPBM);
1 ♂. Cook Is, Rarotonga, Tupapa, 25.XI.1979, leg. Krauss (BPBM);
3 ♂♂, 1 ♀. Cook Is, Rarotonga, Avarua, XII.1979, leg. Krauss (BPBM);
2 ♂♂. Cook Is, Rarotonga, Avana Valley, 2. III.1979, leg. Krauss (BPBM);

3 ♂♂. Cook Is, Rarotonga, Titi Kaveka, 0-100 m, XII.1977, leg. Krauss (BPBM);
1 ♂. Cook Is, Rarotonga, Avarua, 0-100 m, XII.1977, leg. Krauss (BPBM);
1 ♂. Cook Is, Rarotonga, Avatiu Valley, III.1979, leg. Krauss (BPBM);
1 ♂. Cook Is, Aitutaki Atoll, Amuri, 0-100 m, XII.1977, leg. Krauss (BPBM);
1 ♂. Cook Is, Atiu I., Central part, 0-70 m, III.1976, leg. Krauss (BPBM);
1 ♂. Marquesas Is, Nuku Hiva I., Taipivai to Toovii, 300-700 m, 15.VI.1984, leg. Nishida (BPBM);
1 ♂. Society Is, Huahine I., Fare, 14.III.1979, leg. Krauss (BPBM);
1 ♂. Society Is, Raiatea, Uturoa, 0-100 m, III.1971, leg. Krauss (BPBM);
5 ♂♂, 1 ♀. Austral Is, Rurutu I., Moerai, 0-150 m, XII.1977, leg. Krauss (BPBM);
10 ♂♂, 3 ♀♀. Austral Is, Rurutu I., Moerai, 0-100 m, XII.1977, leg. Krauss (BPBM);
3 ♂♂. Austral Is, Tubuai I., Mahu, 0-50 m, III.1977, leg. Krauss (BPBM);
1 ♂. Austral Is, Tubuai, Mahu, 0-60 m, III.1977, leg. Krauss (BMNH);
7 ♂♂, 4 ♀♀. Austral Is, Rapa Island, 7-9.XII.1934, leg. Crocker Exp. (AMNH).

In the BPBM there is extensive, old, material which is not listed here in detail. The following islands have been noted, all from Hawaii Islands: Maui, Molokai, Hawaii, Kauai, Oahu.

Distribution.

S. oceanica Macquart is distributed in the south-central and central parts of the Pacific between c. 140° W and 160° W. The material from the south-central area includes French Polynesia (Ruruta, Tubuai, Rapa, Raiatea, and Huahino); the Cook Islands (Rarotonga, Atiu, Mitiaro, Aitutaki); and the Marquesas Islands (Nuku, Hiva and Futa Hiva). The distribution areas of *S. luteinervis* de Meijere and *S. oceanica* thus appear to be separated in the south-central Pacific by a distance of c. 3,000 km. Also in the Hawaiian Islands (Maui, Molokai, Hawaii, Kauai and Oahu). It is strange that neither *S. luteinervis* nor *S oceanica* has reached New Zealand, which has acquired a number of other "trash" species. The record of *Syritta oceanica* in New Zealand is an error that originates from Macquart's original description where the distribution was given as "De l'Oceanie, Otaiti et Nouvelle Zealande".

Bionomics.

Apart from descriptions and figures of the egg, larva, and egg of *S. oceanica*, Terry (1910) gives some notes on the biology of the species near Honululu on Oahu where this species was "common in the plains and lower elevations, hovering around flowers, especially Compositae". The author observed a female "ovipositing under the partially detached bark of a small twig upon the ground in a damp location". Terry counted 33 eggs and placed the larvae in material consisting of wet decaying Hepaticae and guavas on which the larvae fed.

Syritta papua new species

Fig. 72.

The Papua New Guinea area appears to contain a largely unknown fauna of Syritta. Earlier in this study we have described *S. noona* new species from New Ireland and *S. polita* new species from New Britain, and *S. papua* new species represents a third species. The first two species are only known from their male holotypes, whereas there are two female specimens of *S. papua* new species.

Diagnostic characters.
The very narrow frons (fig. 72) is diagnostic. The oral margin, which projects less than the frontal prominence, and the lack of a genuine subbasal spina to the hind femur (as in *S. luteinervis*) are additional characters of importance. The wing is hyaline, with an indistinct spurious vein, an almost indistinct stigma, and a poor covering of microtrichia.

Description – male.
Unknown.

Female.
Face slightly concave, tomentum silvery grey, but lower part of carina non-tomentose. Oral margin less projecting than frontal protuberance. Frons (fig. 72) narrow; ratio between tomentose lower part and blackish upper part is c. 3.5/4.5, the blackish upper part with a tomentose transverse band. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Upper occipital margin uniformly dull brownish. Basoflagellomere orange-yellow, size c. 3.0 x 2.0; arista c. 4.8.

Pleura, postpronotum, and lateral scutum to suture uniformly greyish tomentose. Remaining part of scutum and scutellum deep black and provided with a very short, dark pilosity. No stronger setae on scutellar margin visible.

Spurious vein indistinct. Regular veins thin and pale brownish. Stigma almost indistinct and wing entirely hyaline. Covering of punctiform microtrichia very restricted.

Fore and mid femora darker brownish in basal parts than in apical parts, but are not as pronounced bicoloured as in *S. luteinervis*. Fore and mid tibiae yellow-brown. Hind femur moderately incrassate, blackish, ventrobasal profile-line nearly straight.

Ventrobasal section of hind femur with an anteroventral row of 5 tubercles, each tubercle with a blunt-tipped setula. At level of subbasal tubercle and more posteriorly, an additional tubercle with a setula; a genuine spina as in *S. luteinervis* is missing. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Tergum 1 blackish, anterolateral areas tomentose. Tergum 2 with a wide, almost parallel-sided black posterior fascia occupying c. two-fifths of tergal area; also with a parallel-sided median vitta of c. one-fourth tergal width and an anterior fascia of c. one-tenth tergal length. Terga 3 and 4 blackish, both with relatively small anterolateral areas of tomentum and brownish integument posteriorly. Tergum 4 slightly narrower than tergum 3, rapidly narrowing from one-third of tergal length from posterior margin.

Length: *c.* 6-7 mm.

Material examined.

Holotype: ♀, "Z. [= S.] Nieuw Guinea / Lorentz / 10.II.[19]10, Rivierkamp"/, identified as *Syritta luteinervis* by de Meijere (ZMAN).

Paratype: ♀, Papua New Guinea, Lavongai, Banatam, 23.III.1962, Noona Dan Exp. 61-62 (ZMUC).

Distribution.

S. papua is only known from Papua New Guinea.

Etymology.

The name refers to the collecting site.

XII. The *vitripennis* species-group

This is a species-group of four allopatric Afrotropical species; all are rarely collected. The species-group can be founded as monophyletic on the basis of the following synapomorphies: ventral part of katepisternum blackish and semishining, devoid of any tomentum; oral margin projecting beyond frontal prominence; upper occipital margin dark tomentose; tergum 2 (fig. 19) has a wide column-shaped black area that is a combination of the anterior and posterior fasciae and the median vitta; cerci elongate in dorsal view. *S. montana* new species from Kivu and Uganda is unique among the known *Syritta* species in possessing a dense cover of microtrichia on the entire wing surface. Three of the species in the species-group, viz. *S. montana*, *S. vitripennis* Bigot, and *S. carbonaria* new species have a posteroventral spina on the hind femur; in the fourth species, *S. natalensis* new species, a low ridge is present in the same position. The male genitalia demonstrate the relationship of these four species and also show specific differences. *S. montana* has a membrane that covers the anterior part of the incision in the posterior margin of sternum 4; the other three species do not have such a membrane, which is also present in the members of the *S. oceanica* and *S. flaviventris* species-groups.

Syritta montana new species

Figs 188, 189.

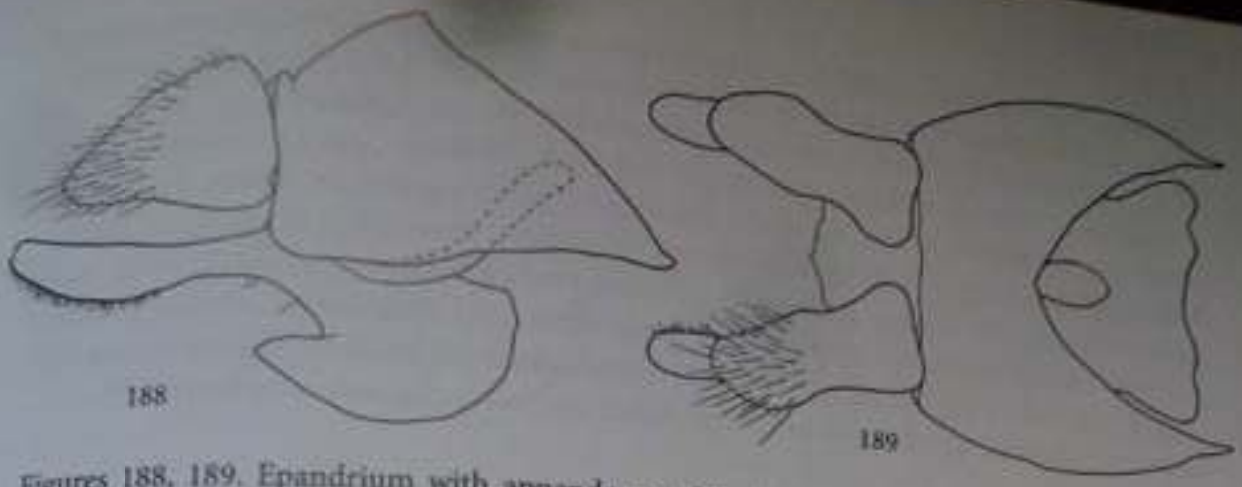
This is a species of the Central African highlands, occurring at heights over 2000 m. *S. montana* new species possesses characters unique for the genus. The partly black katepisternum at once places it in the *S. vitripennis* species-group. It is easily separated from the other three known species of this group by the darkened and densely microtrichose wings; even the alula being completely covered by microtrichia; the tomentose frons is also unique.

Diagnostic characters

S. montana new species has a character that is unique in the genus, namely entirely microtrichose wings, even the alula being entirely covered by microtrichia (see the discussion in the introduction to the *divergata* species-group). The frons in both sexes is totally tomentose. As the only species in the species-group *S. montana* does possess a membrane which partly covers the lumen of the incision in the posterior margin of tergum 4. Both sexes with a ventrally dull blackish katepisternum and a subbasal spina on hind femur.

Description – male.

Face with a very strong concavity, yellow-grey tomentose but lower third of median carina blackish. Oral margin projecting well beyond level of frontal prominence. Eye contiguity c. 2.5. Vertical triangle: entirely tomentose, ratio between pale tomentose lower part and dark tomentose upper part c. 2.0/2.0. Anterior ocellus separated



Figures 188, 189. Epandrium with appendages of *Syritta montana* new species, holotype, Uganda, Kanaba. – 188: lateral view; 189: dorsal view.

from eye-margins by more than width of ocellus. Largest facets c. 40 µm. Upper half of vertical triangle with long pilosity of blackish and brownish setae. Upper occiput brown-black, dulled by brownish tomentum as is also upper vertical triangle; no tomentose occipital marks visible. Basoflagellomere black; size c. 2.6 x 2.0; arista c. 4.5.

Katepisternum coal-black on entire ventral area, but dorso-posterior area ventral to anepimeron ash-grey tomentose. Anepisternum, postpronotum and lateral scutum to suture yellow-grey tomentose, scutal vitta being diffusely demarcated against the brownish dulled scutal disc which shows a pair of pale vittae on anterior half. Marginal scutellar setae all black; a subapical pair of setae distinct; c. 125 µm long. Mesonotal pile short and dark.

Veins brown-black. Spurious vein indistinct. Stigma dark brown, and entire wing surface with a distinct grey-brown tinge. The wing, except for first costal cell and basal half of second costal cell, with a dense covering of microtrichia; also alula totally microtrichose.

Fore and mid femora dark brown in about basal half, yellow-brown in the apical part; corresponding tibiae yellowish. Hind femur moderately incrassate, uniformly shining brown-black; ventrobasal profile line slightly concave.

Ventrobasal section of hind femur with a very strong, almost cylindrical, but slightly curved, posteroventral spina placed at a distance from femoral base equal to hind tibial width, and raised at a right angle to longitudinal axis of femur. The spina c. 250 µm long and with 3 or 4 short black setulae on its apex. This section also with a row of 6 anteroventral tubercles, each tubercle with a black setula. Ventroapical section of hind femur with the usual armature, which includes 4 strong black posteroventral setae before apex.

Hind tibia unmodified, except for a strong anteroventral carina; greatest width, c. 275 µm, occurs one-fourth before apex. Colour remarkable: basal three-fourths yellowish, apical one-fourth dark brownish. Hind basotarsomere symmetric and longer than tarsomeres 2 and 3 together.

Terga 1 and 2 with a continuous wide blackish column-shaped vitta that at its narrowest occupies about 7/10 of tergal width, and posteriorly on tergum 2 reaches lateral margin. Laterally both terga are yellow-grey. Tergum 3 with a similar vitta, becoming narrower towards anterior margin. Tergum 4 rather short, wider than ter-

gum 3, shining black, with a narrow tomentose strip posteriorly, and anterolateral areas of tomentum that laterally only cover anterior one-third of margin. Sternum 4 with a V-shaped incision, its anterior part covered by a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 188): cercus subtriangular; pilosity very fine. Dorsal lobe of surstylus longer than cercus, apical two-thirds with a long drooping lobe which is densely beset with short black setulae; also a few similar setulae subbasally. Ventral lobe of surstylus relatively small, with a rather sharp posterior projection. Dorsal view (fig. 189): cercus almost parallel-sided, but sides with curvature. Apex of dorsal lobe with black setulae on the medial surface. Surstylar apodemes very large, fused for some distance anteriorly.

Female.

Face as in male. Frons wide: width at level of anterior ocellus c. 4 times width of ocellus, and frons without shining black areas but totally tomentose; colour of tomentum ranging from yellow-grey below to chocolate-brown on upper half, the latter coloured tomentum also covering ocellar plate and upper occipital margin. Basoflagellomere much larger than in male: c. 3.5 x 2.7. Thorax, wings, and fore and mid legs as in male. Also hind leg as in male, but posteroventral subbasal spina weaker and shorter, c. 100 µm long. Pattern of abdomen as described for male, but terga wider, and the column-shaped black vitta of terga 1 and 2 consequently also wider. Tergum 4 with a strip of yellow-brown integument posteriorly.

Length: c. 7 mm.

Material examined.

Holotype: ♂. Uganda, Kigezi Dist., Kanaba, 7 800 ft [= c. 2 400 m], XI.1934, leg. F. W. Edwards, B. M. E. Afr. Exp., B.M. 1935-203 (BMNH).

Paratypes:

1 ♀. Uganda, Kigeri [sic!] Dist., Kanaba Gab, 7 500 ft [= c. 2 300 m], 19.XI.1934, leg. F. W. Edwards (BMNH);

1 ♀. DR Congo, Kivu, Terr. Uvira, Ht Luvubu, 2 750 m (humus), V.1954, leg. N. Leleup (RMNH, ex coll. van Doesburg);

1 ♀. DR Congo, Kivu, Munagana, 2 200 m, 18.VIII.1934, leg. G. F. de Witte (MRAC).

Distribution.

The distribution range seems limited to the highlands of central Africa.

Etymology.

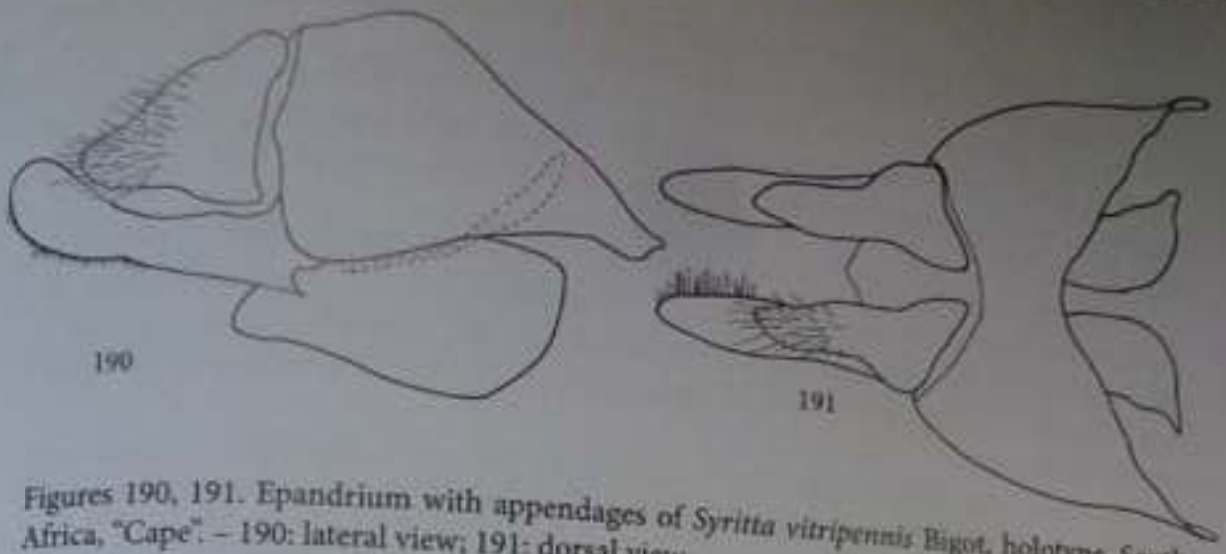
The name refers to the central African mountains where this species occurs.

Syritta vitripennis Bigot, 1885

Figs 31, 190, 191.

Syritta vitripennis Bigot, 1885: 248.

Syritta vitripennis Bigot, 1885 – Smith & Vockeroth, 1980: 507 p.p.: the Tanzania record refers to *S. albopilosa* new species.



Figures 190, 191. Epandrium with appendages of *Syritta vitripennis* Bigot, holotype, South Africa, "Cape". – 190: lateral view; 191: dorsal view.

We first believed that a small series collected by one of us (WB) in 2000 in the Pietermaritzburg Botanical Garden (Province KwaZulu-Natal, South Africa) was identical with *Syritta vitripennis* described by J. Bigot from one male specimen collected in the Cape area. The dissection of the *S. vitripennis* holotype, however, demonstrated that its genitalic structures are different from those of the KwaZulu-Natal population, which we have described as *Syritta natalensis* new species. Both belong to a distinctly monophyletic Afrotropical species-group; see the introduction to the species-group, where the characters are described.

Diagnostic characters.

The ventral part of the katepisternum of this species is blackish and semishining without any tomentum. Marginal scutellar setae blackish; one pair of c. 100 µm long scutellar setae distinct. The spina of hind femur is short and cone-shaped. Tergum 2 (fig. 19) has a wide column-shaped black area that is a combination of the anterior and posterior fasciae and the median vitta; cerci elongate in dorsal view. Frons of both sexes with a fifty / fifty ratio between tomentose lower part and shiny upper part.

Description – male.

Face with a marked concavity, yellowish-grey tomentose, but lower part of median carina non-tomentose and thus blackish. Oral margin projecting well beyond level of frontal prominence. Eye contiguity c. 3.5. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 2.5/2.5; tomentum yellow-grey. Largest facets c. 40 µm. Upper occipital margin semi-dulled by a brownish tomentum; pale marks do not occur; pilosity of vertex long and pale. Basoflagellomere black; size c. 3.0 x 1.7; arista c. 5.0.

Katepisternum largely coal-black (i. e. non-tomentose) and semishining, but dorso-posterior area ventral to anepimeron greyish tomentose. Anepisternum, postpronotum and lateral scutum to suture yellow-grey tomentose, the scutal vitta being strongly concave dorsally. Marginal scutellar setae weak and blackish, one subapical pair appearing longer: c. 100 µm long. Mesonotal pile short and black.

Spurious vein indistinct. Veins brownish. Stigma pale brownish. The provision

with microtrichia is very sparse, only punctiform microtrichia present in apical parts of R-cells and cell DM, and along posterior wing-margin.

Fore and mid femora yellow-brown, with fore femur dark brown for about basal third, and mid femur for about basal half. Fore and mid tibiae yellow-brown. Hind femur moderately incrassate, uniformly brown-black; ventrobasal profile line nearly straight.

Ventrobasal section of hind femur with a moderately strong subbasal spina in a posteroventral position; its length c. 125 µm; with 2 or 3 small setulae on its apex. Also with a row of 3 or 4 anteroventral tubercles, each tubercle with a setula. Ventroapical section of hind femur with the usual armature; 3 or 4 black posteroventral setae before apex.

Hind tibia unmodified, with largest width (c. 290 µm) one-fourth before apex. Colour pale leather-brown, but yellowish at base and in a ring after middle. Hind basotarsomere symmetric, and longer than tarsomeres 2 and 3 together.

Tergum 1 largely brown-black, anteroventral areas brownish with a slight greyish tomentum. Tergum 2 yellow-brown laterally, with a broad, column-shaped, brown-black to black vitta on middle, at its narrowest occupying about half of tergal width. Also tergum 3 extensively brown-black to black, but anterolateral areas yellowish. Tergum 4 slightly wider than tergum 3, shining black, indistinctly paler posteriorly, with bars of tomentum anterolaterally that laterally occupy c. one-third of sidemargin. Sternum 4 with a deep V-shaped incision; without a membrane covering anterior part of the lumen.

Genitalia. Lateral view of epandrium and its appendages (fig. 190): cercus small, subtriangular, with broadly rounded corners; pilosity short, sparse and very fine. Dorsal lobe of surstylus a slightly curved and almost equally wide rod, that is broadly rounded apically. Its median surface is densely covered with short, stiff, black setulae; the apex of some of these setulae shows along ventral margin. Ventral lobe of surstylus large, broadly rounded posteriorly. Dorsal view (fig. 191): cercus relatively short, with undulating side-margins, and a rather pointed apex. The pile on the median side of dorsal lobe is dense, and the setulae appearing longer than in related species. Surstylar apodemes separate. Ejaculatory apodeme with a much larger hood than aedeagal apodeme.

Female.

Frons wide: width in front of anterior ocellus c. 4 times width of anterior ocellus. Frons bicoloured: yellow-grey tomentose on lower half of distance from antennal bow to anterior ocellus, upper half being shining black and without tomentose areas; also ocellar area shining black; upper occipital margin as described for male. Frons with pale pilosity, the setae on upper part long, gradually decreasing in length towards antennae. Basoflagellomere black, basoventral area dark red-brown; size c. 3.6 x 2.3, i. e. distinctly larger than in male. Thorax and wings as described for male. Fore and mid femora paler than in male, uniformly yellow-brown, as are also the corresponding tibiae. Hind femur without a genuine spina; in its place with a moderately large tubercle with a couple of setulae. Abdomen wider than in male, and black column-shaped vitta on terga 1 and 2 consequently wider than in male. Tergum 3 largely black, only relatively small yellow-brown anterolateral areas. Also tergum 4

shining black, with yellow-brown anterolateral areas which are thinly tomentose; similarly coloured integument appearing as a narrow rim along lateral margin, and as a wider rim along posterior margin.

Length: c. 8 mm.

Material examined.

Type material.

Holotype. ♂. South Africa, "Holo/type" and "*S. vitripennis* / ex Coll. Bigot". The Bigot collection label reads "*S. vitripennis* ♂ / Cap. Bon. Esp. / J. Bigot" (UMO) [well preserved].

Additional material.

1 ♂. South Africa, Western Cape Province, Du Toits River, Franschoek Pass, Stellenbosch, 25.II.1981, leg. Stuckenberg (NMSA);

1 ♂. South Africa, Western Cape Province, 12 km N of De Rust, Meiringspoort area, 33°25' S 22°34' E, 900 m, 23.XI. 1990, leg. Whittington & Londt (NMSA);

1 ♀. South Africa, Cape Prov., XI.1920, leg. R. E. Turner (BMNH);

1 ♂. South Africa, Cape T[own], Lightfoot, I.1913, leg.: ? (SAMC).

Syritta carbonaria new species

Figs 192, 193.

This large and beautiful species is the only one of the *S. vitripennis* species-group found in East Africa, and more precisely in the highlands of southwestern Kenya and northern Tanzania.

Diagnostic characters.

The ventral part of katepisternum is blackish and semishining, devoid of any tomentum. Ventrobasal section of hind femur with a very strong subbasal spina in a posteroventral position. Tergum 2 (as in fig. 19) has a wide column-shaped black area that is a combination of the anterior and posterior fasciae and the median vitta; cerci elongate in dorsal view. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.0/1.5.

Description – male.

Face with a strong even concavity; its tomentum greyish with a slight yellowish tinge; a shining black wedge on lower half of median carina. Oral margin projecting strongly beyond frontal prominence. Eye contiguity c. 3.0. Vertical triangle with a ratio between tomentose lower part and blackish upper part of c. 3.0/1.5. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Largest facets c. 40 µm. Upper occipital margin brown-black, dulled by a thin brownish tomentum; pale marks do not appear. Vertex with a very long pilosity. Basoflagellomere black; size c. 3.0 x 1.8; arista c. 4.0.

Katepisternum largely coal-black, i. e. non-tomentose and semishining, but dorso-posterior area ventral to anepimerion dulled by pure grey tomentum. Anepister-

192 193

Figures 192, 193. Epandrium with appendages of *Syritta carbonaria* new species, holotype, Kenya, Ngong. – 192: lateral view; 193: dorsal view.

num, postpronotum and lateral scutum to suture yellow-grey tomentose, the scutal vitta being narrow compared to size of species, and strongly concave. The marginal scutellar setae weak and yellowish, intermixed with smaller setae. Other mesonotal pile short and dark.

Veins blackish. Spurious vein indistinct, appearing merely as a row of microtrichia. Stigma pale brownish. In the region of cross-vein R-M, all wing cells are practically devoid of microtrichia, but they are present in the apical parts of cells as well as along posterior wing margin.

Fore and mid femora black in basal half, rest brownish. Corresponding tibia are brownish, pale yellowish in basal parts. Hind femur black, strongly incrassate; ventrobasal profile line straight.

Ventrobasal section of hind femur with a very strong subbasal spina in posteroventral position; its length c. 200 µm. Towards apex of this section an anteroventral row of 3 small tubercles, each tubercle with a minute blunt setula. Ventroapical section of hind femur with the usual armature, including 4 black posteroventral setae before apex, which are long and slender.

Hind tibia unmodified, with largest width one-fourth from apex, and the usual anteroventral carina. Colour nearly uniformly dark brown, and only indistinctly paler in basal part and in a ring around middle. Hind basotarsomere symmetric and longer than tarsomeres 2 and 3 together.

Pattern of terga 1 and 2 very similar to that of *Syritta natalensis* (see fig. 19). Tergum 3 with a posterior fascia occupying about one-third of tergal length, and a broad median vitta occupying more than half tergal width and becoming wider towards anterior margin. Tergum 4 forms a perfect oval in dorsal view, shining black, with a sharply demarcated posterior strip of tomentum, and also with well developed anterolateral areas of tomentum. Sternum 4 with a very wide incurvation in its posterior margin; without a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 192): cercus gradually narrowing towards a broadly rounded apex; its pilosity short and weak. Dorsal lobe of surstylus projecting beyond cercus, slightly increasing in width towards apex and with a drooping lobe in apical half. Median surface of dorsal lobe densely covered with very short black setulae; the apex of the most ventral of these setulae vis-

pointing towards mid-line; the densely pilose median surface of the dorsal lobes visible. Surstylar apodemes separate. Hood of ejaculatory apodeme only slightly larger than hood of aedeagal apodeme.

Female.
Unknown.

Length: c. 9 mm.

Material examined.
Holotype: ♂. Kenya, Ngong Forestry Station, 13-18.I.1968, Malaise trap, leg. Krombein & Spangler (USNM).

Paratype: ♂. "Van Someren / [Tanzania] Meru 7/43" (BMNH).

Distribution.
According to the sparse material this species is limited to East Africa: Kenya and Tanzania.

Etymology.
The name refers to the blackish area on the katepisternum.

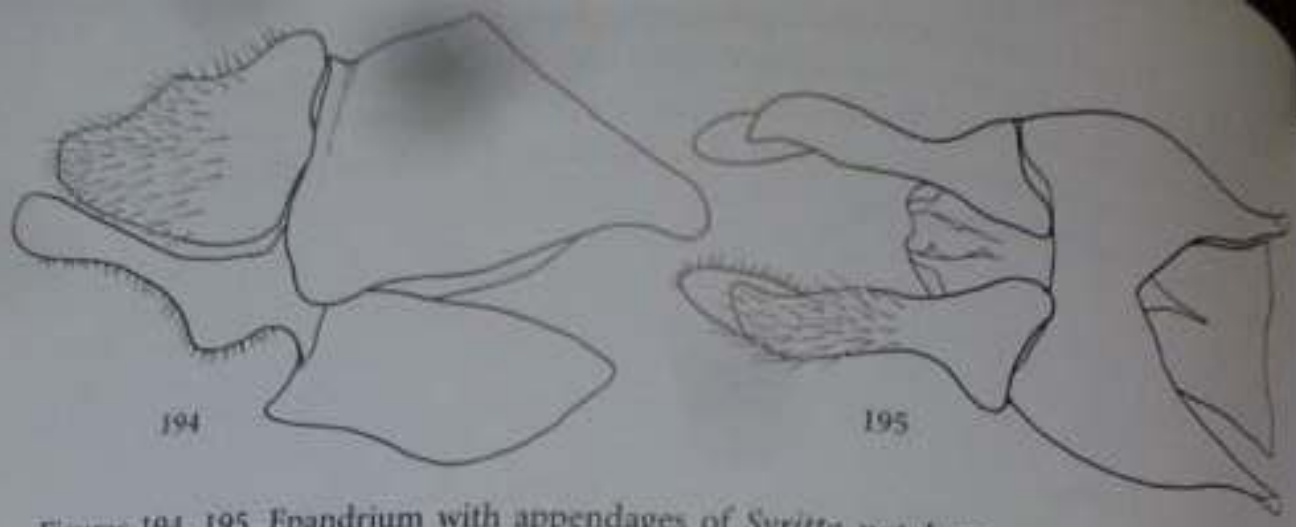
Syritta natalensis new species

Figs 19, 30, 67, 194, 195.

It is surprising that an undescribed *Syritta* could be collected in numbers in the well-kept Botanical Garden of Pietermaritzburg (Province KwaZulu-Natal, South Africa). The ventrally blackish katepisternum and the pattern of tergum 2 shows that it belongs to the *S. vitripennis* species-group, which contains 4 Afrotropical species with allopatric distributions.

Diagnostic characters.
Within the *S. vitripennis* species-group, *S. natalensis* new species is distinguished by the low ridge instead of a posteroventral spina on the hind femur. In the male genitalia the cerci are very large and irregularly shaped. Dorsal lobe of surstylus with a drooping subbasal lobe. Ventral lobe only slightly projecting posteriorly.

Description – male.
Face markedly concave; tomentum silky-grey with a golden tinge; a narrow black triangle on lower part of median ridge. Oral margin projecting well beyond level of frontal prominence. Eye contiguity c. 3.5. Vertical triangle (fig. 30): ratio between tomentose lower part and blackish upper part c. 2.0/3.0; tomentum brownish-grey. Anterior ocellus separated from eye-margin by less than width of ocellus. Largest facets c. 40 µm. Upper occipital margin brown-black and semi-dulled; pale marks do not appear. Vertex with long pale pilosity. Basoflagellomere black, a slight red-brown coloration may occur basoventrally; size c. 3.0 x 2.0; arista c. 4.2.



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Figures 194, 195. Epandrium with appendages of *Syritta natalensis* new species, paratype, South Africa, Pietermaritzburg. – 194: lateral view; 195: dorsal view.

Ventral part of katepisternum coal-black and semishining, posterodorsal area ventral to anepimeron greyish tomentose, sharply delimited from the rest. Anepisternum, postpronotum and lateral scutum to suture yellow-grey tomentose, dorsally with a reddish tinge. Marginal scutellar setae black, one pair of subapicals distinct, they are c. 25-30 µm long. Mesonotal pile very short, pale.

Veins brownish to black, well-marked. Spurious vein indistinct. Stigma brown. Wing surface hyaline. Apical part of wing very sparsely covered with punctiform microtrichia; these best represented along posterior wing margin and in the extreme apical parts of cells R1 and R2+3.

Fore and mid femora blackish in about basal third, red-brown to yellow-brown in the remaining parts; corresponding tibiae yellowish at base, becoming gradually darker red-brown towards apices. Hind femur moderately incrassate, shining black, ventrobasal profile line slightly concave.

Ventrobasal section of hind femur without a genuine spina, but with a low subbasal ridge. This ridge is postero-ventral in position, and in the area between it and the femoral base has a distinct polished black concavity which fits the apicoventral ridge of the tibia when the leg is closed. The remaining structures are 4 or 5 small tubercles in an anteroventral row; each tubercle with a small setula. Ventroapical section of hind femur with the usual armature, also including 4 strong black posteroventrals before apex.

Hind tibia with an evenly concave anteroventral carina. Colour: yellowish at base, followed by a brown ring of c. one-third tibial length, then a narrower red-brown ring, and apical third brownish-black. Hind basotarsomere symmetric and longer than tarsomeres 2 and 3 together.

Terga 1 and 2 patterned as shown in fig. 19. Tergum 3 yellow with posterior third black, connected to a gradually narrower median vitta. Tergum 4 black, sometimes with a slight violet shine. Anterolateral areas of tomentum extensive and continuing along side-margins. Posterior margin of tergum 4 with a narrow strip of tomentum. Sternum 4 with a wide and deep incision; without a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 194): cercus very large and of irregular shape. Dorsal lobe of surstylus projecting beyond cercus, slightly increasing in width towards apex, and with a drooping subbasal lobe. Its pile is ar-

ranged on the median surface, and only the setal apices are visible along the ventral edge. Ventral lobe of surstylus only slightly projecting posteriorly. Dorsal view (fig. 195): cerci with a double concavity on median side, with a single concavity on lateral side. The pile of dorsal surstylar lobes shows. Surstylar apodemes fused. Ejaculatory apodeme with a much larger hood than aedeagal apodeme.

Female.

Face as in male. Frons (fig. 67) wide, but relatively narrower than in *S. vitripennis*, i.e. width in front of anterior ocellus c. 3 times width of ocellus; its lower half tomentose as face, and upper half shining black with a pair of grey-brown tomentose areas; in some specimens also a slight tomentum of similar nature in mid-line. Upper posto-cular margin with a grey-brown tomentum, indicating a pair of occipital marks. Pilosity of frons and vertex pale. Basoflagellomere c. 3.2 x 2.0, i.e. larger than in male. Thorax, wings, and legs as in male. Abdomen wider than in male, black vitta of tergum 2 at its narrowest slightly less than half of total tergal width. Pattern of tergum 4 similar to that of *S. vitripennis*, but yellowish rim along side-margin not connected to yellowish posterior rim.

Length: 7.5-9 mm.

Material examined.

Holotype: ♂. South Africa, KwaZulu-Natal, Pietermaritzburg Bot. Garden, 13.XI.2000, leg. Barkemeyer (NMSA).

Paratypes:

1 ♂. Zimbabwe, ["S. Rhodesia"], N. Vumba, 4.VII.1964, leg. D. Cookson (NMSA);

1 ♀. South Africa, KwaZulu-Natal, Zulu L., Hongosi, XII.1914, leg. W. E. Jones (SAMC);

1 ♂, 2 ♀♀. South Africa, KwaZulu-Natal, Oribi Gorge Reserve, UmzimKulwana Valley, 21.-28.XI.1960, leg. B. & P. Stuckenberg (NMSA);

1 ♀. South Africa, KwaZulu-Natal, Pietermaritzburg, Bot. Garden, 23.II.2000, leg. Barkemeyer (Bkm);

6 ♂♂, 1 ♀. South Africa, KwaZulu-Natal, Pietermaritzburg, Bot. Garden, 13.XI.2000, leg. Barkemeyer (Bkm, ZMUC) [same data as holotype];

1 ♀. South Africa, KwaZulu-Natal, Richmond, 22.XI.1973, leg. Zumpt (BMNH);

1 ♂. South Africa, KwaZulu-Natal, Cumberland, Nature Res., 29°30' S, 30°31' E, *Acacia* savannah, 13.I.2004, leg. Londt, Dikow, Moskovski, Davies (Bkm).

Distribution.

This species is only known from eastern Zimbabwe and the KwaZulu-Natal province in northeastern South Africa.

Etymology.

The name refers to the collecting site of the holotype.

XIII. The *flaviventris* species-group

This species-group of three species is evidently monophyletic. The synapomorphies for the species are as follows:

(a) ventral surface of fore trochanter of male with short stiff black setulae;
(b) hind basotarsomere of male (figs 35-37) asymmetric, with a posterobasal hump;
(c) tergum 2 (fig. 20) of male usually without a median vitta, if present very indistinct;
(d) sternum 4 of male with a very deep incision covered by a membrane.

S. flaviventris Macquart is one of the most widely distributed species of Syritta and can be recorded from all parts of the Afrotropical region, including the Cape Verde Islands and Madagascar. It was therefore a surprise to find that closely related – but very distinct – species have evolved: *S. caboverdensis* new species on Santo Antão (Cape Verde Islands) and *S. hova* new species in Madagascar and Kenya. The three species are easily separated with the assistance of couplets 4 and 5 in the key to males and couplets 10 to 13 in the key to females. It should be noted that *S. hova* possesses a ventrally black katepisternum, as do the members of the *S. vitripennis* species-group.

Syritta caboverdensis new species

Figs 25, 35, 62, 69, 196, 198, 199.

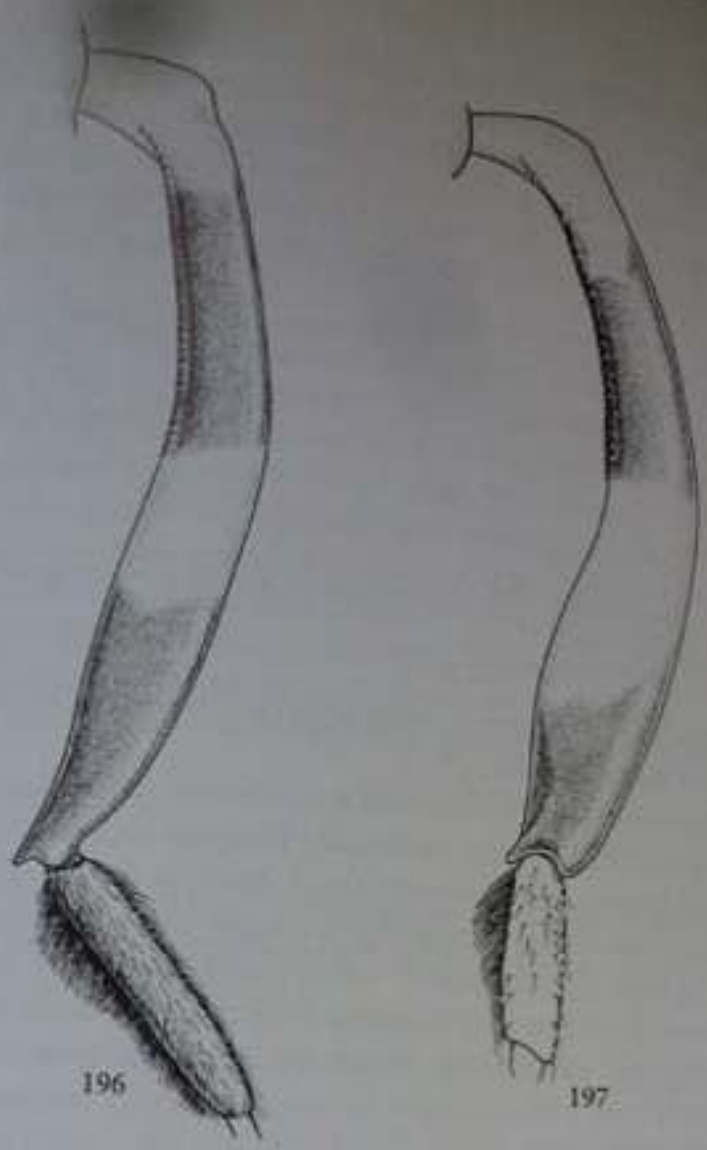
We regard *S. caboverdensis* new species as the most plesiomorphous of the three species of the *S. flaviventris* species-group. Its plesiomorphous character states are the uniformly tomentose katepisternum, the microtrichose wings, the slender hind tibia (fig. 196) with only the indication of a lamina anteroventrally, the moderately dilated hind tibial apex, and the elongate, only slightly asymmetric hind basotarsomere (fig. 35); the last three characters only apply to the male sex.

This is one of the largest species in *Syritta*, some male specimens reaching 11 mm in total length. We have only been able to locate specimens collected on Santo Antão, which is the most northwestern of the Cape Verde Islands. One of us (WB) collected most of the specimens in March 2001 (Barkemeyer 2002, under *S. flaviventris*), but among the material reported as *S. flaviventris* by Frey (1958) were two further male specimens of *S. caboverdensis* (see list of material).

Santo Antão is the only one of the Cape Verde Islands which has water during all months of the year and especially in the mountains and in deep valleys has more green vegetation. *S. flaviventris* was collected on the other islands of the archipelago (see Frey 1958).

Diagnostic characters.

Within the *S. flaviventris* species-group, *S. caboverdensis* new species can be identified by the microtrichose wing which is covered with microtrichia at the "usual position" for a spurious vein; the part distal to cross-vein R-M is uniformly covered with microtrichia. The hind femur and the hind tibia are slender, the tibia apically with



Figures 196, 197. Male hind tibia and basotarsomere in anterior view of 196: *Syritta cabowerdensis* new species and 197: *S. flaviventris* Macquart.

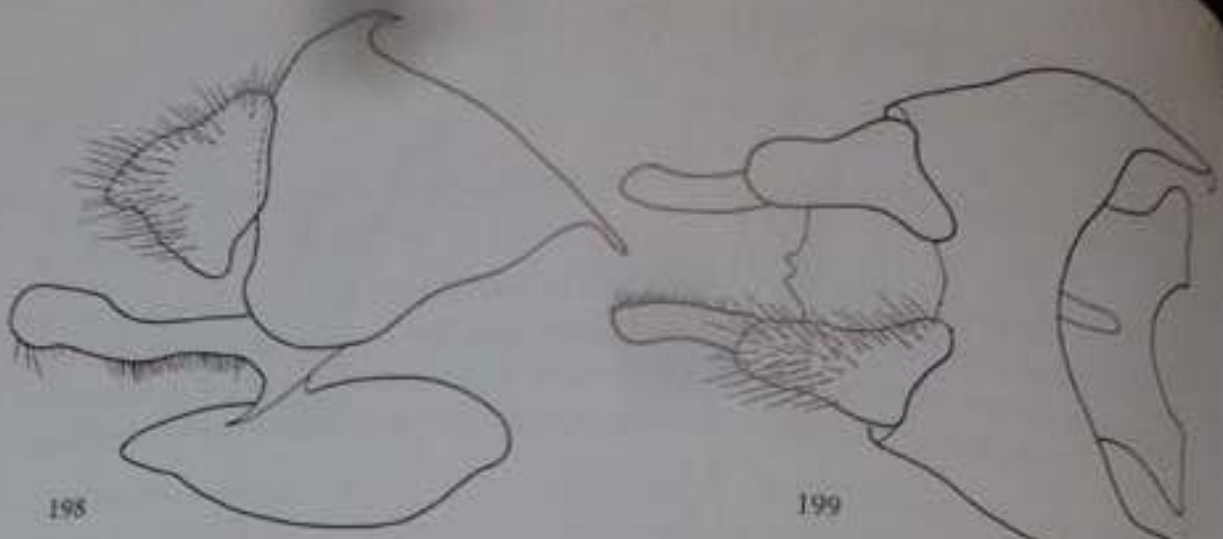
a low lamina. The hind basotarsomere is long and slender, only with the trace of a posterobasal hump.

Description – male.

Face concave, yellow-grey tomentose. Oral margin projecting well beyond frontal prominence. Eye contiguity c. 3.5. Vertical triangle (fig. 25): ratio between tomentose lower part and blackish upper part c. 4.5/0.5; tomentum brown-grey. Anterior ocellus separated from eye-margins by width of ocellus. Largest facets c. 50 µm. Upper occipital margin with a thin grey-brown tomentum. Basoflagellomere blackish, slightly red-brown ventrobasally; size c. 3.8 x 2.0; arista c. 5.6.

Tomentum of pleura, postpronotum and lateral scutal vitta to suture pure greyish, more yellow-grey on the most dorsal parts, with a sharp demarcation line against the shining black remaining part of scutum. Marginal scutellar setae black; holotype with two strong pairs of setae distinct; c. 140 µm long. Mesonotal pile blackish.

Veins strongly blackish. Spurious vein not appearing as a vein, but the fold reveals its position by a covering of mutiple microtrichia, arranged in several irregular rows.



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Figures 198, 199. Epandrium with appendages of *Syritta caboverdensis* new species. – 198: lateral view; 199: dorsal view.

Stigma dark brown. Entire part of wing distal to cross-vein R-M with uniform and dense covering of microtrichia.

Fore trochanter on ventral surface with a number of short black setulae. Fore femur with 1 or a few short black setulae subbasally. Fore and mid femora much darker than in the two related species, *S. flaviventris* and *S. hova*. In the holotype, both femora are brown-black for about basal two-thirds, brownish towards apices, and also slightly paler brownish at base. Paratypes with less brown-black coloration, and one paratype has entirely brownish fore and mid femora. Fore and mid tibiae yellow-brown.

Hind femur (fig. 62) moderately incrassate, ventrobasal section sligthly concave; its colour predominantly black, more or less extensively red-brown at base and on ventral surface after middle.

Ventrobasal section of hind femur (fig. 62) with a moderately long, cone-shaped subbasal spina in a posteroventral position which has a few black setulae at its apex. Further towards apex of section 4 to 8 small tubercles, each tubercle with a minute setula. Ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia (fig. 196) more slender, less curved, and less dilated at apex than in the other two species of the species-group, and with an only indicated anteroventral lamina in apical half. Its colour dark leather-brown, yellow-brown at base and in a ring around middle. Hind basotarsomere (fig. 35) nearly twice as long as in *S. hova* and *S. flaviventris*, almost symmetric, but with a slight posterobasal hump.

Tergum 1 brown-black from side-margin to side-margin of posterior part, anterolaterally with a pale grey tomentum. Terga 2 and 3 orange-yellow, both with a narrow, dark brownish or blackish posterior fascia, tergum 2 also with an anterior fascia of variable shape, from a narrow lense-shaped spot to a triangular area, the apex of which may reach to middle of the tergum. Tergum 4 slightly wider than tergum 3, shining black with a very narrow strip of brown integument posteriorly; anterolateral areas more or less distinctly yellowish, with sparse tomentum that does not reach beyond middle of side-margin. Sternum 4 with a very deep incision covered by a membrane.

Genitalia. Lateral view of epandrium and its appendages (fig. 198): cercus subtriangular, with soft pale pilosity. Dorsal lobe of surstylus of increasing width towards apex, with dense black pilosity in basal half; at apex with a few setae appearing along ventral margin. Ventral lobe of surstylus tapering both anteriorly and posteriorly. Dorsal view (fig. 199): very similar to that of *S. flaviventris*. The genitalia of *S. caboverdensis* can probably not be safely distinguished from those of *S. flaviventris*.

Female.
Face as in male. Frons (fig. 69): ratio between tomentose lower part and blackish upper part c. 4.5/3.5; the blackish upper part with an indistinctly demarcated transverse band of dark brown tomentum. Anterior ocellus separated from eye-margins by width of ocellus. Remaining characters of head, and characters of thorax, wings, and legs as described for male, but fore and mid femora only slightly darkened, and spina of hind femur shorter and weaker. Pattern of terga 2 and 3 very different from that of the male, tergum 2 having a black median vitta of c. 1/3 tergal width as well as anterior and posterior fasciae, and tergum 3 being black with anterolateral areas yellow-brown and showing tomentum on most lateral parts. Tergum 4 with tomentose anterolateral areas which on lateral margin occupy less than half tergal length.

Length: 9-11 mm.

Material examined.
Holotype: ♂. Cape Verde Islands., S. Antão, Ribeiro Grande: "Unterer Bereich nahe Vila da R. Grande" [lower area near Vila da R. Grande], N 17°10.818 / W 25°04.408', 14.III.2001, leg. Barkemeyer (ZMUC).

Paratypes (all from Santo Antão, Cabo Verde, leg. Barkemeyer, see Barkemeyer 2002):
1 ♂. As above, but N 17°10.124', / W 25°05.612', 14.III.2001 (BMNH).
2 ♂♂. Ribeira Grande, lower area near Vila da Ribeira Grande, 14.III.2001 (Bkm) [same data as holotype];
2 ♂♂. Ribeira Grande, lower area (shrubs), 14.III.2001, N 17°10.224' / W 25°05.612' (Bkm);
1 ♂. Ribeira Grande, lower area: 18.III.2001 (Bkm);
2 ♂♂, 3 ♀♀. Ribeira da Torre, 12.III.2001 (Bkm);
2 ♂♂, 2 ♀♀. Ribeira do Paúl, upper area (Bkm);
2 ♂♂. Ribeira da Torre: Xôxô and 0.5 km N Xôxô, 17.III.2001 (Bkm);
1 ♂. Ribeira da Torre: Xôxô-Lombo de Beatrix, 17.III.2001 (Bkm);
1 ♀. Ribeira da Torre: near Xôxô, 17.III.2001 (Bkm).

Distribution.
S. caboverdensis has only been found on the island of Santo Antão (Cape Verde Islands).

Etymology.
The name refers to the collecting site.

Syritta hova new species

Fig. 37.

S. hova new species is a large and beautiful species that occurs in Madagascar and Kenya, and is probably sympatric in places with *S. flaviventris* Macquart. We believe that it is the evolutionary result of the isolation of an ancient *S. flaviventris* species-group member when Madagascar, millions of years ago, had a more northern position and was situated closer to the African east coast.

Several remarkable external characters separate *S. hova* and *S. flaviventris*. However, the male genitalia are very similar in the two, as is often the case when external characters are so different.

Diagnostic characters.

In this species the tomentum of the lower frons is brownish. The eye contiguity is long. The katepisternum is greyish tomentose on dorso-posterior area ventral of anepimeron, ventrally with a triangular coal-black area which is semishining. The ventral surface of the fore femur is provided with 2 to 4 short black subbasal setulae. The tomentose anterolateral areas of tergum 4 occupy only c. one-sixth of the lateral tergal margin.

Description – male.

Face concave, silvery white-yellow tomentose. Oral margin projecting well beyond frontal prominence. Eye contiguity c. 3.5. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 3.0/1.0; tomentum of lower part brownish, and thus clearly different in colour from facial tomentum. Anterior ocellus separated from eye-margins by a distance equal to width of ocellus. Largest facets c. 40 µm. Upper occipital margin dark brown tomentose. Basoflagellomere blackish, red-brown baso-ventrally; size c. 3.5 x 1.8; arista c. 4.2.

Tomentum of pleura greyish, but ventroposterior part of katepisternum untomentose, appearing coal-black as in species of the *S. vitripennis* species-group. Tomentum of postpronotum and lateral scutal vitta to suture grey with a brownish tinge. Remaining part of scutum and also scutellum deep black, with short black pile. scutellum with 1 or 2 pairs of marginal setae; up to 80 µm long.

Veins blackish, but paler at base of wing. Spurious vein indistinct. Whole wing surface is slightly fumigated. Stigma dark brownish. Covering of microtrichia very sparse.

Fore trochanter on ventral surface with about a dozen short black setulae. Fore femur at ventral base usually with 2 to 4 short, black setulae that are characteristically directed backwards, so that they "go free" of the tibia when the leg is closed. Fore and mid femora uniformly brownish; corresponding tibiae slightly paler brownish. Hind femur moderately incrassate, ventrobasal section slightly concave, red-brown at base and to a variable extent ventrally around middle, otherwise brown-black.

The armature of hind femur about the same as in *S. flaviventris*: with the same long and slightly conical, setulae-bearing posteroventral spina, and in apical part of ventrobasal section 4 or 5 irregularly arranged tubercles, each tubercle provided with a small setula. The ventroapical section of hind femur with the usual armature, including 4 or 5 black posteroventral setae before apex.

Hind tibia as described for *S. flaviventris*, and as in this species its dilated apex rubs against anterior surface of the femoral spina. In the female, this is different (see later). Hind basotarsomere (fig. 37) short and asymmetric, but less so than in *S. flaviventris* (fig. 36).

Terga 2 and 3 largely yellow as in *S. flaviventris*, both terga with a narrow posterior fascia, tergum 2 also with an anterior fascia which is evenly convex posteriorly. Tergum 4 usually all blackish, but integument sometimes slightly brownish both anteriorly and posteriorly; anterolateral areas of tomentum form transverse bars that on lateral margin cover only c. 1/6 of tergal length; these tomentose bars yellow-grey, not white-grey as in *S. flaviventris*. Sternum 4 with a very deep, membrane-covered incision in posterior margin.

Male genitalia. These cannot be safely distinguished from those of *S. flaviventris* (see figs 200, 201) and *S. caboverdensis* new species (see figs 198, 199).

Female.

Face as in male. Frons: ratio between tomentose lower part and blackish upper part c. 8.0/1.0; uppermost part of tomentum brownish-grey as in male and with a pair of indistinctly demarcated blackish areas at eye-margin; tomentum on lower part yellow-white as on face. Anterior ocellus separated from eye-margins by width of ocellus. Other characters of the head as in male, and thorax and wings also as described for male. Fore trochanter without short black setulae, but fore femur with the same black ventral setulae subbasally as in male. Hind femur usually uniformly brownish; its subbasal spina smaller, more slender, and directed towards femoral apex. Hind tibia more simple than in male, still curved, but apex less dilated. It is evident that the concave ventro-apical part of hind tibia operates with the subbasal spina (compare with the male). Hind basotarsomere longer than in male and symmetric. Tergum 2 yellow-brown with posterior and anterior black fasciae and a median black vitta of c. one-third tergal width. On tergum 3 the posterior fascia occupies about three-fifths of tergal length; anterior two-fifths yellow-brown with a black median vitta of one-third tergal width. Tomentose anterolateral areas on the otherwise black tergum 4 relatively small as in male; also a posterior strip of yellow integument.

Length: 7-9 mm.

Material examined.

Holotype: ♂. Madagascar, Antananarivo, Lac Anosy, 20.III.1982, leg. Barkemeyer (ZMUC).

Paratypes:

1 ♂. Kenya, 37 ml. S.E. of Eldoret, 26.I.1968, leg. Boyes (CNC);

2 ♂♂. Madagascar, Antananarivo, [date:] ?, leg. Sikora S. (ZMHB);

4 ♂♂, 4 ♀♀. Madagascar, Centre, Lac Froid, 1 620 m, 11.-15.XII.1957, leg. Stuckenberg (NMSA & RMNH);

2 ♂♂. Madagascar, C[entre], Moramanga, 1 000 m, 18.-24.XII.[19] 57, leg. Stuckenberg (NMSA);

1 ♂. Madagascar, Centre, Moramanga, 46 km W, 7.I.1971, leg. Daly (BMNH);

1 ♂, 1 ♀. Madagascar, Centre, Station Agric. Alaotra, 800 m, 24.XII.1957, leg. Stuckenberg (NMSA);

6 ♂♂, Madagascar, Antananarivo, Lac Anosy, 20.III.1982, leg. Barkemeyer (Bkm) [same data as holotype];
1 ♀, Madagascar, Antananarivo ["Tananarive"], 12.IX.1980, leg.: ? (RMNH);
1 ♂, 1 ♀, Madagascar, Manditsara, [date] ?, leg. Wulsin (CNC);
1 ♂, Madagascar, Andasibé ["Perinet"], 12.II.1968, leg. Boyes (CNC);
1 ♀, Madagascar, Oriental Forest Dist. between Taomasina ["Tamatave"] and Antanativo ["Tananarive"], 1.V.1937, leg. Lambarton (CNC);
3 ♂♂, 1 ♀, Madagascar, Antananarivo: Parc Tsimbazaza, 26.X.2003, leg. Barkemeyer (Bkm);
4 ♂♂, 6 ♀♀, Madagascar, near Ihosy (10 km W): shore of river Ihazofotsy, 6.XI.2003, leg. Barkemeyer (Bkm, 1 ♂, 1 ♀ in BMNH);
1 ♂, Madagascar, Marozevo (E' Manjakadriana & W Moramanga), 28.X.2003, leg. Barkemeyer (Bkm);
1 ♀, Madagascar, near Ambavalo, 2.5 km NE Anara SW Larintsena, 6. XI.2003, leg. Barkemeyer (Bkm).

Distribution.
S. hova new species seems to be rare in Kenya. In Madagascar it was found in the centre, east and south of the island. It occurs in parks in the centre of the country's capital Antananarivo.

Etymology.
The species is named after the original indigenous human population of Madagascar.

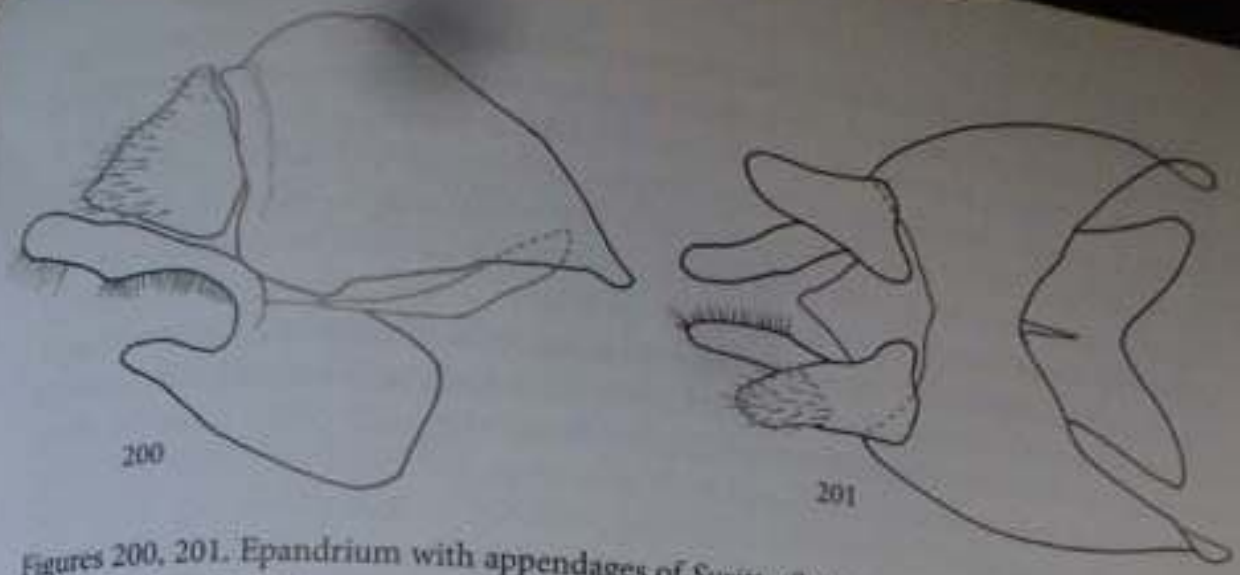
Syritta flaviventris Macquart, 1842

Figs 20, 26, 36, 68, 197, 200, 201.

Syritta flaviventris Macquart, 1842: 135.
Syritta nigricornis Macquart, 1842: 134.
Syritta spinigera Loew, 1848: 331.
Syritta albifacies Bigot, 1859: 439.
Syritta aculeipes Schiner, 1868: 367.
Syritta spinigerella Thomson, [1869]: 502.
Syritta armipes Thomson, [1869]: 503.
Austrosyritta cortesi Marnef, 1967: 269.

After *S. pipiens* (Linnaeus), *S. flaviventris* Macquart is the best known species of the genus. It has a very wide distribution in the Afrotropical region and the south-western part of the Palaearctic region. It is also present in the Nearctic and Neotropical regions.

Diagnosis.
S. flaviventris can be distinguished from its congeners by the lack of a spurious vein, a typical morphology of the hind legs, and a uniformly greyish tomentose katepisternum. In the female, the frontal tomentum does not usually reach the anterior ocellus.



Figures 200, 201. Epandrium with appendages of *Syritta flaviventris* Macquart. – 200: lateral view; 201: dorsal view.

Redescription – male.

Face concave, silvery-grey tomentose. Oral margin projecting well beyond frontal prominence. Eye contiguity c. 2.2, i.e. short compared to related species. Vertical triangle (fig. 26): ratio between tomentose lower part and blackish upper part c. 3.5/1.0; tomentum silvery-grey as on face (compare with related species). Anterior ocellus separated from eye-margins by a distance equal to, or slightly longer than, width of ocellus. Largest facets c. 40 µm. Upper occipital margin grey-brown tomentose; tomentose marks not distinct. Basoflagellomere blackish, ventrobasal section red-brown to a variable extent; size rather variable, in holotype c. 3.5 x 1.8; arista c. 4.2.

Tomentum of pleura greyish, of postpronotum yellow-grey. Tomentum of lateral scutal vitta to suture greyish as on pleura. Marginal scutellar setae minute; one pair of setae, c. 30 µm long, may be distinct. Mesonotal pile whitish.

Spurious vein indistinct. Veins Sc and R1 pale brownish, distinctly paler than other veins which are brownish. Stigma yellowish. Microtrichia of apical part of wing punctiform and very sparse.

Trochanter of fore leg with some short black setulae on ventral surface. Fore and mid legs reddish yellow-brown. Hind femur relatively slender, ventrobasal profile line slightly concave. Its colour variable, but usually red-brown at base and black at apex, the intermediate area with a broad blackish ring followed by a red-brown ring up to the black apex.

Ventrobasal section of hind femur with a long, slightly conical, subbasal spina in posteroventral position; it carries 2 to 4 short black setulae on its blunt apex. Further along ventrobasal surface with 1 to 5 small black setulae arranged on low tubercles. Ventroapical section of hind femur with the usual armature, including 3 or 4 black posteroventral setae before apex.

Hind tibia in lateral view (fig. 197) wider in about apical half than on the remainder, this extension caused by a long lamina of the anteroventral carina. In dorsal view, the tibia with an extraordinarily strong curvature, and apex dilated, especially posteriorly. Hind basotarsomere (fig. 36) asymmetric by possessing a posterodorsal hump; shorter than combined length of tarsomeres 2 and 3.

Tergum 1 (fig. 20) with a large blackish spot on middle, white-yellow tomentose

laterally; this blackish spot is distinct even in specimens with a pale coloured abdomen. Tergum 2 yellow from side-margin to side-margin, with a dark anterior fascia of variable extent, but usually triangular; also with a posterior dark fascia. Tergum 3 with a similar dark posterior fascia. Tergum 4 brownish to blackish, with anterolateral areas of white-grey tomentum which extend laterally to about middle of the tergum. Sternum 4 with a very deep incision which is covered by a membrane, and anteriorly is surrounded by some strong pale setae.

Genitalia. Lateral view of epandrium and its appendages (fig. 200): cercus irregularly triangular; pilosity short and weak. Dorsal lobe of surstylus projecting beyond cercus. It is slender in basal third, with a low hump at middle of the ventral surface; apical third about parallel-sided and with thin setae; pile black and more stiff in basal half. Ventral lobe of surstylus projecting posteriorly. Dorsal view (fig. 201): cerci gradually tapering. Apices of dorsal surstylar lobes exposed. Surstylar apodemes fused anteriorly. Hood of ejaculatory apodeme large.

Female.

Face with similar silvery-grey tomentum to male. Frons (fig. 68): ratio between tomentose lower part and blackish upper part is 7.0-8.0/1.0; tomentum silvery-grey as on face, but tomentum often interrupted by irregularly shaped non-tomentose areas at some distance from dorsal edge of tomentum. Anterior ocellus separated from eye-margins by a distance longer than width of ocellus. Other characters of head and characters of thorax, wings, and legs as in male, but fore trochanter without black setulae, hind femoral spina shorter, and hind basotarsomere fully symmetric. Tergum 2 with black anterior and posterior fasciae and a black vitta of 1/5 to 1/4 tergal width. Tergum 3 may be extensively black with yellowish anterolateral areas, but specimens with a much paler tergum 3 occur. Tergum 4 with a similar variation as regards distribution of black and tomentose areas, but usually the anterolateral tomentose areas occupying more than anterior tergal half at lateral margin, and both yellow-brown integument and a tomentose strip present along posterior margin.

Length: 7-8 mm, but "hunger"-specimens only 5 mm long occur.

Material examined.

Type material.

Syritta flaviventris Macquart, 1842

Holotype:1 ♂ and 1 ♀ are present under no. 24.94 (MNHN). Macquart described only the male sex on a specimen "du Senegal" collected by M. Guérin.

The ♂ is labelled with a circular label with "Senegal / Guerin", and a large handwritten old label of "No. 1217 bis / Syritta / flaviventris" and a red label of "Type / Vockeroth 69".

The ♀ has only a circular label of "Senegal / Guerin". Both are in reasonably good condition.

We regard the ♂ as the holotype, as the female was not described.

Syritta nigricornis Macquart, 1842

There are 2 ♂♂ syntypes unter the name *S. nigricornis* in the MNHN. One has an old handwritten label of "No. 1200 / Syritta / nigricornis" and a circular blue label

with illegible text. The other has only the same circular label as above (MNHM). The condition of both specimens is reasonably good.

S. spinigera Loew, 1848

Described from several syntypes from Asia Minor, Greek islands, and Sicily. Two male syntypes from Syria and Asia Minor were examined.

Syritta albifacies Bigot, 1859

Holotype: ♂. "Holotype" and "*S. albifacies* / ex Coll. Bigot". The attached label reads "*Syritta albifacies* ♂ / Madagasc. / Bigot" (UMO).

Syritta aculeipes Schiner, 1868

Holotype: ♂. "*Syritta aculeipes* Schin." in Schiner's handwriting, and "D", "*aculeipes* / Alte Sammlung", and "Novara-R. / Cap". Also label with "Holotype / *Syritta aculeipes* Schiner / det. FC Thompson 1977" (NMW). [In good condition]

Syritta spinigerella Thomson, [1869]

Holotype: ♀. "St. Helena", "Kinb.", indicated as holotype by P. H. v. Doesburg Jr. 2002 (NHRS). [In good condition; "Kinb." probably = J. G. M. Kinberg, surgeon and zoologist of the Swedish "Eugenie" expedition (see Brinck 1955).]

Syritta armipes Thomson, [1869]

Holotype. ♂. "Cap. B. Sp.", "Kinb.", indicated as holotype by P.H. v. Doesburg Jr., 2002 (NHRS). In good condition; "Kinb." probably = J. G. M. Kinberg, surgeon and zoologist of the Swedish "Eugenie" expedition (see Brinck 1955).

Distribution.

We believe that *S. flaviventris* Macquart evolved in Africa south of the Sahara. In the Afrotropical region we have seen specimens from the following countries: Cape Verde Is, Ghana, Chad, Cameroon, DR Congo, Ethiopia, Kenya, Tanzania, Burundi, Zambia, Malawi, Zimbabwe, Botswana, Namibia, Mozambique, South Africa, Lesotho, Swaziland, Mauritius, Madagascar, and La Réunion.

The Palaearctic distribution seems restricted to the Mediterranean subregion and the Middle East, eastwards to Ahvaz in the south-western Iran. We have examined specimens from Morocco, Tunisia, S. Spain, Italy, Sicily, Greece, Cyprus, Turkey, Egypt, Israel, Lebanon, Syria, Jordan, and Iran. There are records of *S. flaviventris* from Texas and Mexico (Thompson 1990: 70). Fluke (1960) has recorded the species from Brazil, and Marnef (1967) recorded it from Chile as *Austrosyritta cortesi* Marnef. Argentina was added to the list of records by Thompson et al. (1976: 119). Smith & Vockeroth (1980: 507) recorded it from Easter Island. All these New World records are to be regarded as introductions with man.

Biology.

Pérez-Bañón & Marcos-García (2000) reared *S. flaviventris* from saprophagous larvae found in the decaying platyclades of *Opuntia maxima* cacti on the Spanish Mediterranean coast. The authors gave a description of the larvae and reported on the biology of *S. flaviventris*-larvae, which may be found together with larvae of *S. pipiens*.

XIV. The *dilatata* species-group

Syritta dilatata Keiser, 1971

Figs 21, 28, 66, 202-205.

Syritta dilatata Keiser, 1971: 287.

Syritta dilatata is a very distinct and divergent species which appears to be endemic to Madagascar. It possesses a number of autapomorphous characters (see below). Its sister-group shall probably not be searched for among some of the other species-groups with a reduced spurious vein. A possible candidate for its sister-group could be *S. rufa* new species of the *S. bulbus* species-group from Maputaland in eastern South Africa. If this is accepted, then *S. dilatata* represents one of several examples of parallel evolution as regards reduction of the spurious vein.

Diagnostic characters.
This species with an indistinct spurious vein can be identified by the very narrow frons which has a slight tomentum below. The hind tibia of both sexes is dorsally dilated in apical one-third. The tarsomeres 3 to 5 of the hind leg are blackish and dilated.

Redescription – male.
Face markedly concave; tomentum greyish with a rouge tinge. Oral margin not projecting beyond level of frontal prominence. Eye contiguity c. 1.0. Vertical triangle (fig. 28): ratio between tomentose lower part and blackish upper part c. 1.0/4.0; tomentum greyish. Largest facets c. 30 µm. Upper occipital tomentose marks distinct. Basoflagellomere dark brownish, blackish along dorsal and apical margins; size c. 3.0 x 2.0; arista c. 5.0.

Tomentum of katepisternum ash-grey, of anepisternum, postpronotum and lateral scutum to suture grey with an orange tinge. Marginal scutellar setae fine and blackish, one pair c. 40 µm long distinct. Mesonotal pile whitish.

Veins dark brown, well marked. Spurious vein indistinct. Stigma indistinct, pale brownish. Microtrichia of apical part of wing minute and sparsely distributed.

Fore and mid legs yellow-brown, both femora indistinctly darkened in about basal half. Hind femur relatively slender, ventrobasal profile line straight; colour uniformly pale brownish.

Ventrobasal section of hind femur with 4 to 6 uniformly sized minute tubercles which are irregularly arranged; each with a minute blunt black setula. Ventroapical section of hind femur with the usual armature, including 5 or 6 black posteroventral setae before apex.

Hind tibia (fig. 202) of a characteristic shape: its width gradually increases from base to about 1/4 from apex, caused by an extension of the dorsal side. Colour brown, with yellowish ring beyond middle. Hind basotarsomere (fig. 203) cylindrical and about as long as other tarsomeres together. Tarsomere 3, and especially tarsomeres 4 and 5, broadened and flattened. First two tarsomeres brown, others black.

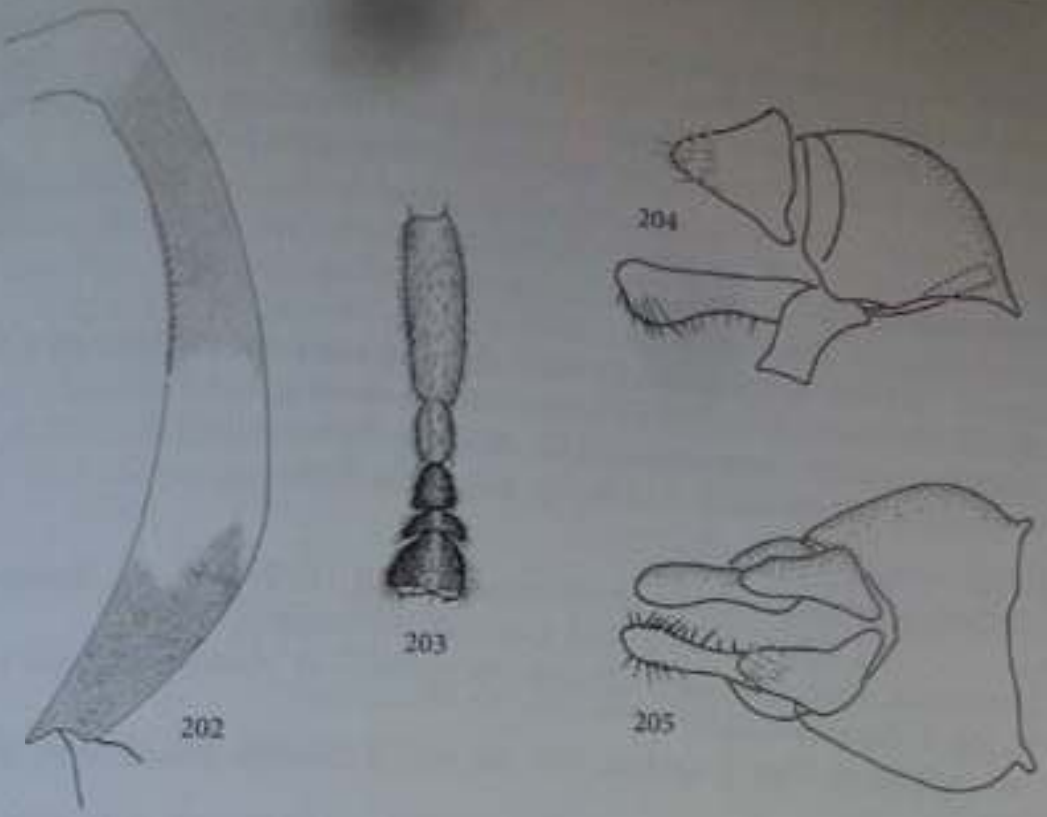


Figure 202. Male hind tibia in anterior view of *Syritta dilatata* Keiser.
Figure 203. Male hind tarsomeres in dorsal view of *Syritta dilatata* Keiser.
Figures 204, 205. Epandrium with appendages of *Syritta dilatata* Keiser, Madagascar. – 204: lateral view; 205: dorsal view.

Tergum 1 (fig. 21) with a large blackish area, yellow anterolaterally. Tergum 2 yellow with an hourglass-shaped blackish area composed of anterior and posterior fasciae connected by a vitta c. 1/5 of tergal width. Tergum 3 yellow with a blackish posterior fascia which continues as a vitta not reaching anterior margin. Tergum 4 narrower than tergum 3, nearly parallel-sided, shining black, with tomentose anterolateral areas that at side-margin only occupy about 1/4 of this. Sternum 4 with a low indentation.

Genitalia. Lateral view of epandrium and its appendages (fig. 204): cercus triangular, without a "root". Dorsal lobe of surstylus short, dorsal margin straight, ventral margin drooping before apex; pilosity stiff, black, mainly positioned on median surface. Ventral lobe of surstylus of unique shape. Dorsal view (fig. 205): median margins of cerci concave. Dorsal surstylar lobes slightly dilated towards apex, and pilosity present on both sides. Surstylar apodemes not visible because of the great extension of the dorsal part of epandrium.

Female.

Face as in male. Frons (fig. 66) with a ratio between tomentose lower part and blackish upper part of c. 3.0/5.5; blackish part with a pair of small tomentose areas at eye-margins; also area above antennal bow blackish. Anterior ocellus separated from eye-margins by less than width of ocellus. Upper occipital tomentose marks more distinct than in male. Basoflagellomere darker than in male: blackish, dark reddish brown in basoventral area. Thorax, wings and legs as in male, with the same dilated

hind tibia, but with normal hind tarsomeres. The abdomen almost 2 times as wide as in male, and the black colour on terga 2 and 3 more extensive than in male. Tergum 4 almost triangular, as posterior margin is only about 1/4 as long as anterior margin, colour shining black, with white-grey tomentose anterolateral areas.

Length: 7-8 mm.

Material examined.

Type material.

Paratypes: 1 ♂, 2 ♀♀, Madagascar, Tul.[éar], Mandromodromotra, 24.II.1958, Keiser (NHMB) [the holotype in MNHN belongs to this series of 2 ♂♂, 6 ♀♀].

1 ♂. Madagascar, Man., Tananarive, 15.XII.1957, leg. Keiser (NHMB).

1 ♀. Madagascar, Fia., Ihosy, 30.I.1958, leg. Keiser (NHMB).

Additional material.

2 ♂♂. Madagascar, Périnet, 20 km E Moramanga, 6. & 15.IV. 1982, leg. Barkemeyer (Bkm);

1 ♂. Madagascar, Tam., Morarano-Chrome 25 km W forêt, *Acacia famesiana* forest, IV.1992, leg. A. Pauly (MRAC);

1 ♂. Madagascar, S, Fort Dauphin, 100 m, 14.-18.IV.1968, leg. K.M.G. & P.D. (BMNH);

1 ♀. Madagascar, S., 5 km W Fort Dauphin, 21.IV.1991, leg. Freidberg (USNM);

1 ♀. Madagascar, Tuléar, Betioky, 275 m, 15.III.1968, leg. K.M.G. & P.D. (BMNH);

1 ♀. Madagascar, Tam, Foulpoints forêt, I.1995, leg. A. Pauly (MRAC);

2 ♀♀. Madagascar, Nord, Montagne d'Ambre, 23.XI.-4.XII.1957, leg. Stuckenberg (NMSA);

2 ♀♀. Madagascar, Antanarivo, date: ?, Sikora S. (ZMB);

1 ♀. Madagascar, N., Ambohitra Joffreville, 800 m, 9-12.IV.1991, leg. Freidberg & Kaplan (USNM);

1 ♂. Madagascar, Ranomafana, 1-1.5 km SW E Moramanga, 30.X.2003, leg. Barkemeyer (Bkm).

Distribution.

There are records from all over the island of Madagascar apart from the west.

XV. The *latitarsata* species-group

We have placed three species in this species-group. Each of them has strong autapomorphies; for details, see the introduction to the species. The synapomorphies holding these three species together are weak: an intensively tomentose scutum and an indistinctly sclerotised or very thin spurious vein. What makes the species-group of special interest is the fact that it is one of the few species-groups with a distribution in the Palaearctic region, although only in its periphery: *S. latitarsata* Macquart in the Middle East, *S. vittata* Portschinsky in a large area from S Russia to W Pakistan, and *S. asiatica* new species in Tajikistan.

Syritta latitarsata Macquart, 1842

Figs 22, 27, 65, 206, 207, 210-213.

Syritta latitarsata Macquart, 1842: 135.

This is the only species of the species-group occurring in the Afrotropical region, where it is widely distributed. It is distinguished from all its congeners by all the tarsomeres of the hind legs being broadened and flattened.

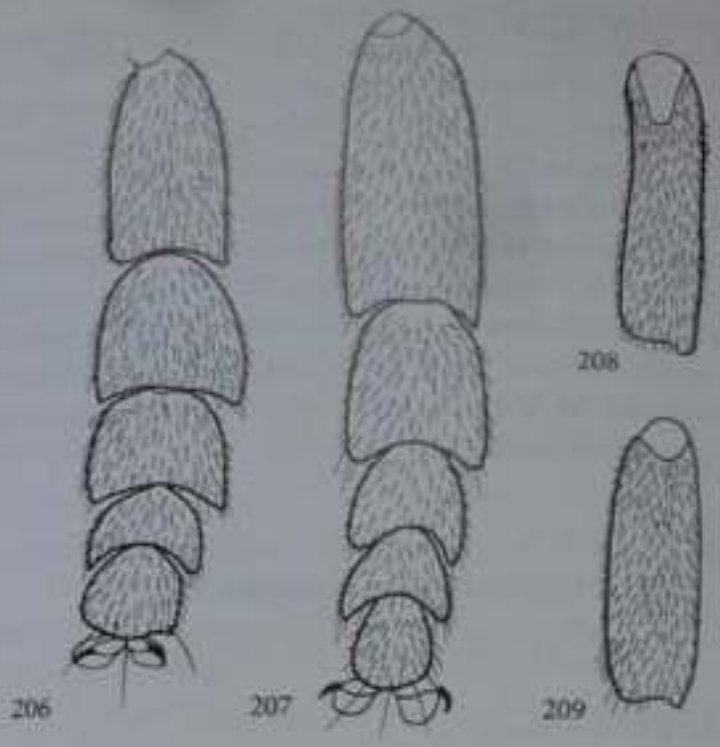
Diagnostic characters.
In this species all tarsomeres of the hind leg are broadened and flattened. The scutal vitta is not sharply delimited dorsally. In the male, the vertical triangle is parallel-sided for a distance, and with extensive tomentum. The shape of the median vitta of tergum 2 is diagnostic. There is a knob-like projection at posterolateral corner of epandrium.

Description – male.
Face only slightly concave, white-grey to yellow-grey tomentose. Oral margin level with frontal prominence. Eye contiguity short, only 1.0-1.5. Vertical triangle (fig. 27): ratio between tomentose lower part and blackish upper part c. 5.0-6.0/<0.5; tomentum white-grey. Anterior ocellus separated from eye-margins by less than width of ocellus. Upper occipital margin tomentose. Pilosity on vertex sparse and short. Largest facets c. 40 µm. Basoflagellomere orange-yellow; size c. 3.0 x 2.0; arista c. 4.0.

Tomentum of pleura pure grey, of postpronotum grey-yellow. Tomentum of lateral scutum to suture pure grey as on pleura; the vitta not sharply demarcated dorsally as in most species of *Syritta*, but the tomentum spreads on to disc of scutum, especially anteriorly and along suture. One pair of marginal scutellar setae distinct, c. 35 µm long. Mesonotal pile very short, whitish.

Veins weak, thin and pale. Spurious vein indistinct. Stigma indistinct, pale yellow. Microtrichia of part of wing apical to cross-vein R-M punctiform and very sparsely distributed.

Fore and mid legs yellow-brown. Hind femur elongate, very moderately incrassate; ventrobasal profile line slightly concave. Colour predominantly brownish-black, but paler brown at base and in a more-or-less complete, oblique ring around middle.



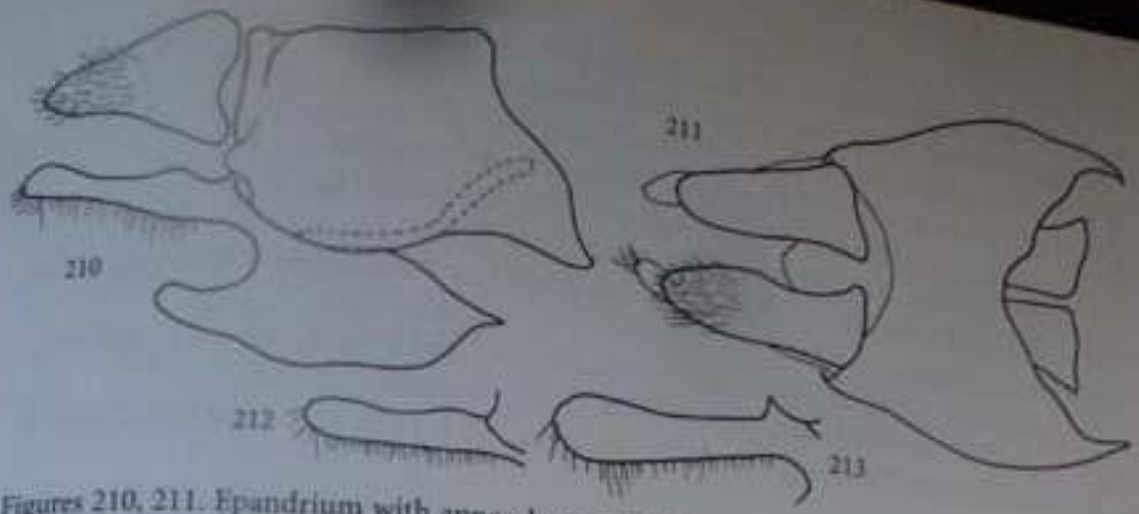
Figures 206, 207. Left hind tarsomeres in dorsal view of *Syritta latitarsata* Macquart. – 206: male, South Africa; 207: female, Gambia.
Figures 208, 209. Left hind basotarsomere in dorsal view of 208: *Syritta vittata* Portschinsky and 209: *S. asiatica* new species, both females.

Ventrobasal section of hind femur without a genuine spina, only with a low, ridge-shaped subbasal tubercle which has 2 or 3 short blunt black setulae. Also with 2 to 4 additional small tubercles in a row, each with a minute black setula. Ventroapical section of hind femur with the usual armature, but setulae forming the ctenidium more spaced, and the 6 setae in the anteroventral row longer, than in most species; also 3 or 4 black posteroventral setae before apex.

Hind tibia in lateral view wider in apical half than in basal half; the widening is a combination of a slight expansion of the dorsal surface and the presence of an elongate lamina on the anteroventral carina. Colour brown basally and apically, slightly paler brown around middle. Hind tarsus (figs 206, 207) remarkable: all tarsomeres are dorso-ventrally flattened, with dorsal surface concave.

Abdomen slender-bodied. Terga 1 and 2 patterned as in fig. 22; note the relatively narrow posterior fascia of tergum 2, which also has a almost parallel-sided vitta which rapidly narrows anteriorly before reaching anterior margin. Tergum 3 yellow with a blackish posterior fascia and an indicated vitta posteriorly. From certain angles, a whitish tomentum appearing on lateral areas of terga 2 and 3. Tergum 4 slender, nearly 2 times as long as wide, brownish to blackish, posterior one-fourth palest and with a narrow tomentose strip along margin; anterolateral tomentose areas reaching beyond middle of tergum at lateral margin. Sternum 4 only slightly incised posteriorly.

Genitalia. Lateral view of epandrium and its appendages (fig. 210): cercus triangular. Dorsal lobe of surstylus slightly longer than cercus, shaped as a simple rod



Figures 210, 211. Epandrium with appendages of *Syritta latitarsata* Macquart, Egypt, Fayad. 210: lateral view; 211: dorsal view.
Figures 212, 213. Dorsal lobe of surstylus of *S. latitarsata* Macquart. 212: specimen from South Africa; 213: specimen from Namibia.

with apical and ventral pilosity; shape somewhat variable: specimens from Egypt, KwaZulu-Natal and Namibia are illustrated to show variation. Ventral lobe of surstylus weakly sclerotised. A knob-like projection at posterolateral corner of epandrium represents an autapomorphy. Dorsal view (fig. 211): extreme apex of dorsal surstylar lobes appearing beyond the cerci. Surstylar apodemes separate. Ejaculatory apodeme big-hooded.

Female.
This sex is more heavily built than male. Face with same concavity as in male. Entire head (fig. 65) white-grey tomentose, except for ocellar plate which is polished black. Also a narrow strip of black in front of anterior ocellus which is separated from eye-margins by less than width of ocellus. Thorax, wings and legs as described for male, but the low subbasal ridge of hind femur less prominent. Hind tarsomeres (fig. 207) slightly narrower than in male. Abdomen broad, almost parallel-sided. Tergum 2 with a blackish median vitta showing the same characteristics as described for male. Tergum 3 with or without a median vitta; if present it falls far short of anterior tergal margin. Tergum 4 at anterior margin as wide as tergum 3, gradually narrowing, so that at posterior margin it is about half as wide as tergum 3; black with large tomentose anterolateral areas which reach posterior corners; also with a wide tomentose posterior fascia. Sternum 4 distinctly longer than wide and polished black (compare with other species of the group).

Length: 7-9 mm.

Material examined.
Type material.
Reported missing in the Paris Museum, Baylac, pers. comm., 25.4.2003.
1 ♀. Pakistan, 32 km E of Karachi, 30.V.1984, leg. Rozen et al. (AMNH);
2 ♂♂. United Arab Emirates ["UAE"], Abu Dhabi, 3.III.1983, leg. Hamer (BMNH);
1 ♀. Israel, Ein-Feshbhg., 15.III.1973, leg. Kaplan (CNC);

1 ♂, 3 ♀♀. Egypt, Siwa, 31.VIII.1935, leg. J. Omer-Cooper (ZMUC);
1 ♂. Egypt, Siwa, 2.IX.1935, leg. J. Omer-Cooper (BMNH);
1 ♀. Egypt, Siwa, 8.V.1935, leg. J. Omer-Cooper (BMNH);
1 ♂. Egypt, Fayed, IV.-V.1943, leg. H. Priesner (coll. Claußen);
1 ♂. Eritrea, Wadi Damas, 26.I.1957, leg. Greathead (BMNH);
1 ♂. Eritrea, Ailet, 7.II.1957, leg. Greathead (BMNH);
1 ♀. Gambia, River Gambia, northern shore, 1-2 km W Georgetown, 27.II.1985, leg. Barkemeyer (Bkm);
1 ♀. Angola, R. Curoca, NE P. Alexandre, 25.-26.II.1972, leg. S. Afr. Exp. (BMNH);
1 ♂. Namibia, Swakopmund, 29.-30.II.1970, leg. Lindner (SMNS);
1 ♂. South Africa, KwaZulu-Natal, Richards Bay, 24.X.1994, leg. Danielsson (MZLU).

Distribution.
S. latitarsata occurs in large areas of Africa (but apparently not in Central and East Africa) and in Egypt, Israel, UAE, and Pakistan. Collin (1949) reported this species to be very common in the Siwa Oasis in Egypt.

Syritta vittata Portschinsky, 1875

Figs 5, 23, 29, 208, 214, 215.

Syritta vittata Portschinsky, 1875: 27.

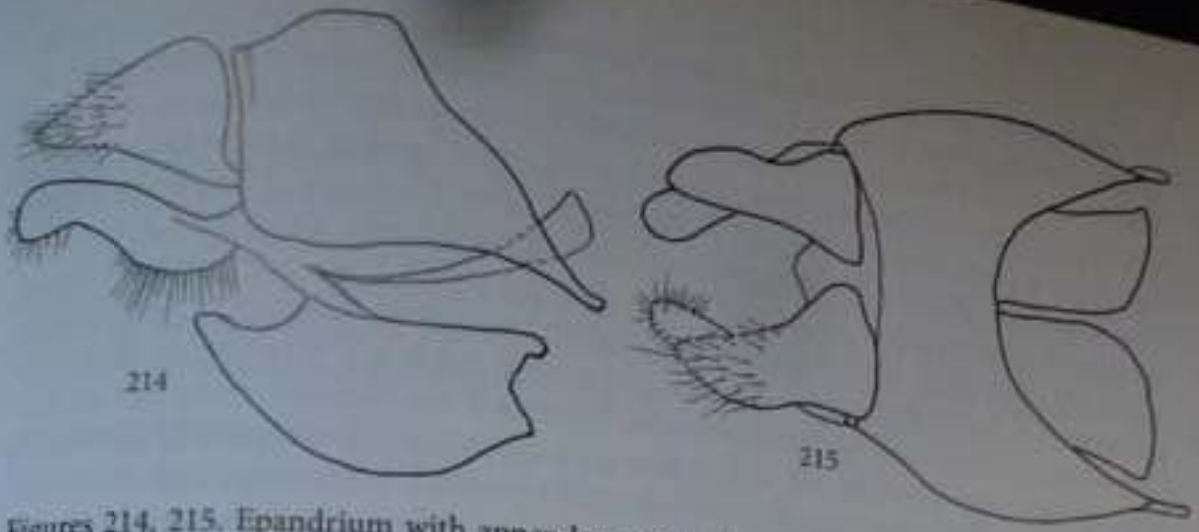
S. vittata Portschinsky is one of the very few species of *Syritta* with a Palaearctic distribution, ranging from South Russia over the Central Asiatic republics to Iran and westernmost Pakistan. Morphologically it is a peculiar species, with also considerable differences between the sexes.

Diagnostic characters.
Both sexes are characterised by the intensively tomentose head and scutum and by the very thin, but discernable, spurious vein. The male is also recognised by its strongly concave hind femur, with a subbasal spina, and by the presence of short black setulae on anterior surface of hind trochanter. These setulae are absent in the female which possesses an autapomorphy in the unique shape of segment 4.

Description – male.
Face distinctly concave, silky grey tomentose. Oral margin level with frontal prominence or slightly protruding. Eye contiguity c. 2.5. Vertical triangle (fig. 29) entirely tomentose, and other parts of head also tomentose. Largest facets c. 40 µm. Basoflagellomere yellow; size c. 2.5 x 1.6; arista c. 3.0.

Tomentum of pleura, postpronotum and lateral scutum to suture pure greyish, and this tomentum also covering anterior part of scutum, a strip along suture towards mid-line, and a posterior strip between wing bases. Scutellum black; marginal setae pale; no strong setae discernable. Mesonotal pilosity pale.

Spurious vein is very thin and nearly obsolete basally. Regular veins brownish, thin but well marked. Stigma yellow-brown. Apical part of wing with extensively distributed punctiform microtrichia; bare areas may occur along the veins. Alula (fig. 5) wide



Figures 214, 215. Epandrium with appendages of *Syritta vittata* Portschinsky, Iran, Ahvaz. – 214: lateral view; 215: dorsal view.

Fore and mid legs yellowish. Hind femur moderately incrassate, shiny yellowish, or yellow-brown with a dark brown ring before middle and brownish at apex. Ventrobasal profile line strongly concave. Hind trochanter covered by thin white setae and a dense layer of short, bluntly tipped, black setulae on anterior surface.

Ventrobasal section of hind femur with a remarkably strong column-shaped subbasal spina which is posteriorly displaced and has 3 to 8 minute setulae on its apex. At same level, but arranged more anteriorly, are 2 to 4 minute black setulae. Ventroapical section of hind femur with the usual armature; only 3 black posteroventral setae before apex.

Hind tibia yellowish, slightly darkened in apical third, increasing in width towards apex, reaching maximum width one-third from apex.

The colour pattern of the terga varying considerably. In the plesiomorphous state tergum 1 is coal-black with yellowish anterolateral areas. Tergum 2 with a posterior fascia c. one-third of tergal length, a much narrower anterior fascia, and a median vitta that is narrow and gradually tapers into a line anteriorly. Tergum 3 with only a posterior fascia. Tergum 4 about as wide as tergum 3 and with a very characteristic pattern: shining black in anterior 3/4, yellow-brown in posterior one-fourth, with a broad posterior rim of tomentum; also large anterolateral areas of tomentum. Specimens from Iran and Pakistan have a much paler, nearly totally yellow-brown abdomen, but the ground pattern – as described above – is still indicated. Sternum 4 with a very low incision in the posterior margin.

Genitalia. Lateral view of epandrium and its appendages (fig. 214): cercus triangular, with "root". Dorsal lobe of surstylus slightly projecting beyond cercus, with a drooping lobe in basal half; apex only weakly pilose. Ventral lobe of surstylus posteriorly projecting. Dorsal view (fig. 215): cerci broad-based and rather pointed. Apex of dorsal surstylar lobes just shows its weak pilosity. Surstylar apodemes separate. Ejaculatory apodeme with a larger hood than aedeagal apodeme.

Female.

Face with a marked concavity as in male. Entire head covered by a greyish tomentum; only a narrow ring around each ocellus may be non-tomentose. Anterior ocel-

lus separated from eye margins by more than width of ocellus. Basoflagellomere larger than in male; size c. 3.2 x 2.3. Scutum with larger areas of tomentum than in male. Wings and fore and mid legs as in male. Hind femur: ventrobasal section only slightly concave; subbasal posteroventral spina much smaller than in male, represented by a short cone with a setula only; anteroventrally a row of 2 to 6 low tubercles, each one carrying a black setula. Colour of hind femur, and shape and colour pattern of hind tibia, as in male. Pattern of terga 2 and 3: a black posterior fascia which is c. one-third of tergal length on tergum 2 and nearly one-half of tergal length on tergum 3, on both terga continuing into a wide, gradually tapering, median vitta that connects to a narrow anterior fascia. Tergum 4 has a construction not seen in other *Syritta*: the anterior 3/4 with a pair of deep impressions separated by a black ridge along midline, and posteriorly delimited by a black transverse ridge. Anterolaterally with large areas of grey tomentum which connects to the posterior one-fourth of tergum which is drooping and greyish tomentose. Sternum 4 entirely greyish tomentose; also quite unique for a *Syritta*.

Material examined.

Type material.

Holotype: ♀. "Du gouvernement d'Astrakhan" (ZIN).

Additional material.

1 ♂. "Asia Centr.", Chiva, 5.V.1927, leg. Zimin (NMW);

1 ♀. "Asia Centr.", Chiva, 1.VI.1927, leg. Zimin (NMW);

1 ♂, 1 ♀. Pakistan, Baluchistan Prov., Sariab 15 km S Quetta, 15.V.1984, leg. McGinley (USNM);

1 ♂. Iran, Beluchistan, Iranshar, 800 m, 25.V.-2.VI.1954, leg. Richter & Schäuffele (SMNS);

2 ♂♂. Iran, Ahvaz, 1998, leg. Abu Dousti (coll. Claußen);

1 ♂. Turkmenistan, Umg. [= near] Chalatsh Amudarva, 30.IV.1996, leg. D. Dolin (coll. Nielsen);

1 ♂. Turkmenistan, Tachtabasar, IV.1887, leg. Reitter (NMW);

2 ♀♀. Turkmenistan, Karakum, Umg. [= near] V. Kerki, Seid, 14.IV.1995, leg. K. Schönitzer (ZSMC);

1 ♂. Kazachstan, Charym Valley W. Chundza (43°37' N, 79°21' E; 650 m), 29.-31.V.2001, leg. M. Hauser (coll. Hauser);

1 ♀. Russia, Sarepta [=Krasnoarmeisk], [date:] ?, leg. ? (ZMHB, coll. Becker, # 36638).

Distribution.

Widely distributed from S Russia through the Central Asiatic republics to Iran and Pakistan. Unfortunately our information on the distribution is very scanty. We were informed that the collection of the Zoological Institute in Saint Petersburg houses more than 200 specimens (F. C. Thompson, pers. comm.), but we have been unable to borrow this material which may also contain additional material of *S. asiatica* new species.

Syritta asiatica new species

Fig. 209.

With a few exceptions, we have deliberately avoided describing new species on the basis of female specimens alone. One of these is *S. asiatica* new species which is notable because it represents a third member of the *S. latitarsata* species-group. In the female sex, these three species are easily recognised by differences in the structure of the 4th abdominal segment (see diagnoses and couplets in the key to females). We hope that more material of this interesting species will eventually be found.

Diagnostic characters.

Ocellar triangle tomentose. Spurious vein very thin. Tergum 4 evenly convex. Sternum 4 shining black anteriorly, tomentose posteriorly. Tarsomeres normal.

Description – male.

Unknown.

Female.

Face moderately concave; oral margin less protruding than frontal prominence. Entire head covered by a greyish tomentum, but this thin on face and genae which appear yellowish translucent. Anterior ocellus separated from eye-margins by more than width of ocellus. Basoflagellomere orange-yellow; size c. 2.8 x 2.2; arista c. 4.0.

Pleura greyish tomentose, postpronotum even more yellow-grey. Scutum blackish, with a broad ill-defined, greyish tomentose lateral vitta; extensive greyish tomentum also present on anterior scutum, around suture, and on area anterior to postalar calli. Marginal scutellar pilosity weak; no strong pair of setae apparent.

Spurious vein very thin, but discernable for its entire length. Regular veins and stigma pale brownish. Apex of the wing well provided with microtrichia.

Fore and mid legs yellowish. Hind femur moderately incrassate; ventrobasal section slightly concave, with 10 small setulae standing on tubercles; 4 of these setulae are minute and form an irregular subbasal group. Also 5 black posteroventral setae before apex. Hind femur bicoloured: pale brown at base and in a broad ring around middle, dark brown for the rest.

Hind tibia dark brown in apical one-third, paler brown for the rest. Hind basotarsomere (fig. 209) slender, symmetric.

Tergum 1 with brown-black posterior fascia, remainder yellow-brown with a whitish tomentum. Terga 2 and 3 yellow-brown, with a blackish posterior fascia that occupies one-fifth of tergum 2 and one-fourth of tergum 3; each tergum also with a cone-shaped median vitta that does not reach anterior margin of terga and has an average width equalling c. one-fifth of tergal width. Tergum 4 evenly convex, black with yellowish, lightly tomentose, anterolateral areas that connect along lateral margin to a broad posterior fascia of pale tomentum. Sternum 4 with a polished black anterior area that is wider than long; posteriorly with a tomentose fascia.

Length: c. 7 mm.

Material examined.
Holotype: ♀, "Dzilikul, 1931 / S. Tadzhikistan / Gussakovskij 26.V." and "*Syrrita* sp. *tata* Portsch. / Stackelberg det." (ZMUC).

Etymology.
The name refers to the collecting site.

XVI. The *snyderi* species-group

Why have the four largest known species of *Syritta* endemic occurrences on isolated oceanic islands? We have already discussed *S. decora* Walker from Mauritius and La Réunion in the *S. hirta* species-group and *S. caboverdensis* new species of Santo Antão (Cape Verde Islands) as a member of the *S. flaviventris* species-group. The two remaining species, *S. snyderi* Shiraki of the Ogasawara Archipelago in the Pacific Ocean and *S. maritima* Hull of Christmas Island in the Indian Ocean, are placed in a species-group of doubtful monophyly. The male of *S. snyderi* has a strong autapomorphy in the structure of the hind femur (fig. 216). Unfortunately, the male of *S. maritima* is unknown, but there are similarities between the females of the two species with regard to the frontal pattern and the shape, coloration and armature of the hind femur (fig. 64). We think that a close relationship between *S. snyderi* and *S. maritima* cannot be excluded, but the mentioned similarities may also represent symplesiomorphies.

Syritta snyderi Shiraki, 1963

Figs 216-218.

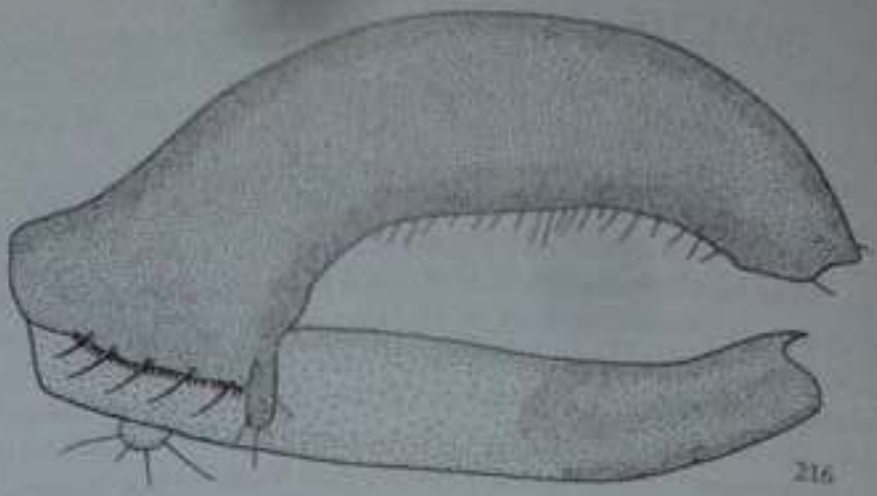
Syritta snyderi Shiraki, 1963: 162.

This is a large and peculiar *Syritta* species with a distribution seemingly restricted to the Ogasawara Archipelago some 1,000 km SE of the Japanese island of Kyushu. Both sexes have remarkable autapomorphies. The male genitalia (figs 217, 218) are very large, even when compared to the size of the species, and the elongate shape of both cercus and dorsal surstylar lobe is reminiscent of the situation in the *S. pipiens* species-group.

Diagnostic characters.
In the male, the hind femur (fig. 216) has an unique posteroventral spina before apex and also a pre-ctenidial spina, the two spinae embracing the base of the hind tibia. The female possesses a "normal" hind femur. Its deeply withdrawn female genitalia represent an autapomorphy.

Redescription – male.
Face with a marked concavity; facial tomentum greyish with a slight yellowish tinge. Oral margin level with frontal prominence. Eye contiguity c. 4.0. Vertical triangle: ratio between tomentose lower part and blackish upper part c. 4.0/1.0; tomentum greyish. Largest facets c. 50 µm. Vertex with a short yellowish pilosity. Upper occipital margin with continuous tomentum. Basoflagellomere brownish, darker apically than basally; size c. 2.8 x 2.2; arista c. 4.5.

Katepisternum and anterior part of anepisternum with greyish tomentum, but tomentum of posterior part of anepisternum, of postpronotum, and of the wide and equally broad scutal vitta to suture grey-yellow. Also a strip of grey-yellow tomen-



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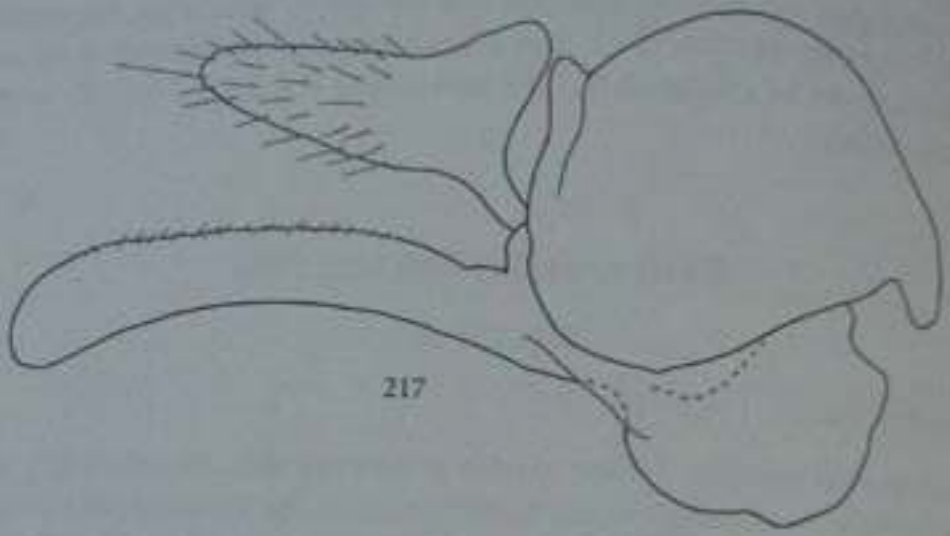

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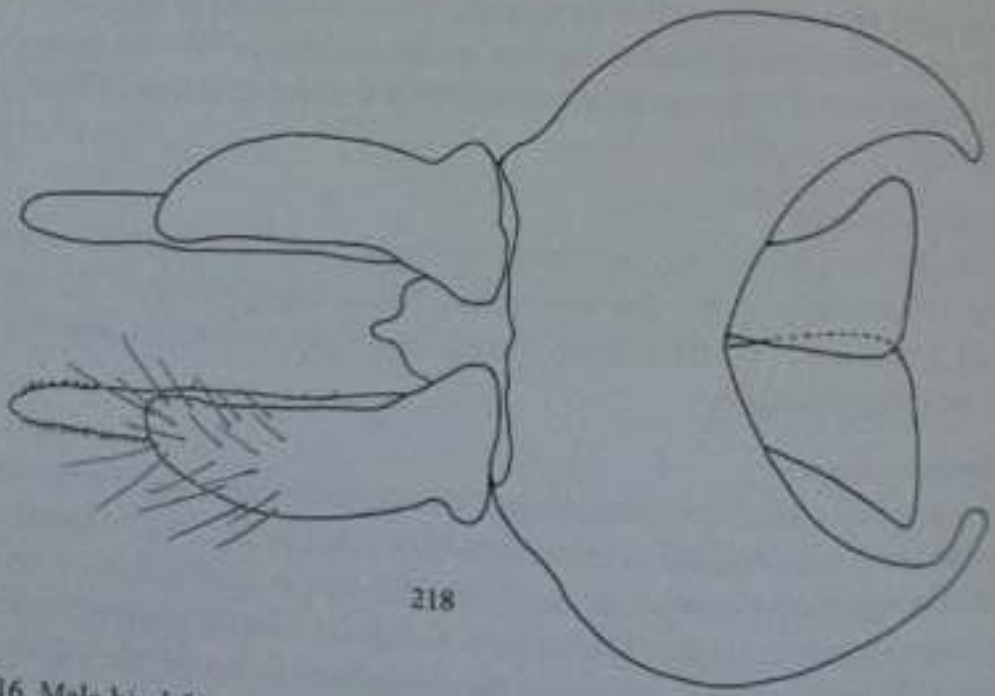

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Figure 216. Male hind femur and tibia in anterior view of *Syritta snyderi* Shiraki, paratype, "Bonin Is."

Figures 217, 218. Epandrium with appendages of *Syritta snyderi* Shiraki, paratype, "Bonin Is" – 217: lateral view; 218: dorsal view.

tum posteriorly on scutum. Scutellum black, with one pair of weak, black marginal setae, c. 60 µm long. Mesonotal pile golden and rather long.

Spurious vein thicker than the regular veins next to it, but less sharply delimited. Regular veins brown-black, and entire wing surface with a grey-brown tinge. Stigma brownish. Whole section of wing apical to cross-vein RM with a uniform covering of microtrichia. Alula with microtrichia also on the basal and apical parts of anterior section.

Fore and mid legs yellow-brown, slightly darkened in basal half of femora. Hind femur (fig. 216) shining brown-black, only slightly incrassate, with a long and concave ventrobasal section.

Ventrobasal section of hind femur without armature in the form of a spina or tubercles with setulae (but see the female); only some weak setae can be observed. Ventroapical section short, the ctenidium itself occupying about one-fourth of total femoral length. A strong pre-ctenidial spina present, terminating with a rounded tap. Anterior to ctenidium are 5 strong, slightly curved, black anteroventral setae. At level of pre-ctenidial spina, but placed posteriorly on the femur, with a very long curved spina that is covered with pale setae pointing in all directions and visible in lateral view.

Hind tibia (fig. 216) remarkably wide and of almost equal width throughout, only slightly tapering towards apex. An anteroventral carina is only present in the basal section, with the usual row of black appressed setulae. Hind tibia bicoloured: yellowish in about basal 2/3, brown-black (same colour as the femur) in one-third.

Tergum 1 yellow-brown, with whitish-grey tomentum on anterolateral areas. Tergum 2 yellow-brown, with a darker brown posterior fascia which continues as a cone-shaped median vitta reaching anterior margin of tergum; also with a narrow anterior fascia. Tergum 3 yellow-brown, with a darker brown posterior fascia which laterally occupies about one-third of tergal length, in mid-line about two-thirds of tergal length. Tergum 4 wider than tergum 3, shining blackish, with a wide posterior border of yellow-brown integument; narrow tomentose bars present anterolaterally. Sternum 4 with a very deep and narrowly V-shaped slit into posterior margin.

Genitalia. These are large compared with size of species. Lateral view of epandrium and its appendages (fig. 217): cercus elongate, gradually tapering towards apex, which is narrowly rounded; a subbasal dorsal lobe present; pilosity pale and very restricted. Dorsal lobe of surstylus sable-like, gradually wider towards apex which is obliquely rounded; its pilosity very restricted, but c. 30 very short black setae are present on median surface before apex. Ventral lobe of surstylus small compared to size of the genitalia, with a rounded posterior margin; its anterior part weakly sclerotized. Dorsal view (fig. 218): the narrow cerci have a convex lateral margin and a concave median margin. Dorsal lobes entirely slender, almost parallel-sided, and a few of the minute setae visible. Surstylar apodemes separate, partly overlapping. The ejaculatory apodeme very small, its hood small and weakly sclerotized.

Female.

Agreeing in many respects with the male. Frons moderately wide, largely tomentose, with the following areas black: a triangular area on frontal prominence; this black area continuing as a very narrow black mid stripe; uppermost part of frons shining

black for a distance equalling height of anterior ocellus. The golden mesonotal pilosity more remarkable than in the male. Wings and fore and mid legs as in male. Hind femur differently shaped from that of male: moderately incrassate, shining black. Ventrobasal section only slightly concave and provided with 2-4 anteroventral tubercles, each one with a black setula. Posteroventrally, before apex of section, two minute tubercles with a white seta. Ventroapical section of hind femur with a "normal" armature, i. e. without the pre-ctenidial spina of the male (see fig. 216), and posteroventral spina also missing; only with the usual posteroventral setae, 3 or 4 in number, and the most basal one is whitish. Hind tibia as described for the male. Abdomen of equal width. In one female, terga 1 to 3 are uniformly yellow-brown, only slightly darker brown posterolaterally on terga 2 and 3. The second female has terga 1 to 3 more red-brown, and also indications of a darker fascia on terga 2 and 3. Tergum 4 is very characteristic: as wide as tergum 3, largely shining black, but with yellowish or brownish integument on large triangular anterolateral areas, which have small bars of greyish tomentum. The brown integument continuing along lateral margin and also covering a broad rim along posterior margin. There is a deep concavity c. one-fourth of tergal length from posterior margin. The deep withdrawal of the genitalia is most remarkable.

Length: About 10 mm.

Material examined.

Type material.

Paratype: ♂. Bonin Is.: Chichi Jima Grp., Ototo Jima, Kammuri-iwa (SW bay), 3.VI.1958 (USNM).

Additional material.

2 ♀♀. Ogasawara Arch., Haha-jima, S ridge Chibusa Yama, 300 m, 20-22.VIII.1980 (BPBM).

Syritta maritima Hull, 1944

Fig. 64.

Syritta maritima Hull, 1944: 60.

As mentioned in the introduction to the species-group, it is not clear whether *S. maritima* Hull is closely related to *S. snyderi* Shiraki or not. However, the female hind femur (fig. 64) is almost identical in the two species: same elongate shape, same ratio between ventrobasal and ventroapical sections, same blackish coloration, and same armament on ventrobasal section, only difference being the fewer setula-bearing tubercles in *S. snyderi* than in *S. maritima*.

Diagnostic characters.

Oral margin projecting beyond frontal prominence. Scutellum with 2 pairs of marginal setae. Abdominal apex of ♀ "normal" (see *S. snyderi*).

Redescription – male.
Unknown.

Female.
Face strongly concave; oral margin very protruding and more so than frontal prominence. Upper face grey-yellow tomentose, narrow strip along oral margin and gena polished brown-black to black. Frons largely grey-yellow tomentose, ratio between tomentose lower part to blackish upper part c. 10.0/1.0. Anterior ocellus separated from eye-margins by a distance shorter than width of ocellus. Occipital margin continuously tomentose. Basoflagellomere dark red-brown; size c. 3.5 x 2.5; arista c. 6.0.

Tomentum of pleura, postpronotum and lateral scutum to suture greyish to grey-yellow. Remainder of scutum and scutellum deep black, finely and densely punctate, punctures bearing short pale hairs. A tomentose strip anterior to postalar callus. Scutellum with pale setae along margin; also 2 pairs of black setae, c. 100 µm long.

Spurious vein and regular veins blackish, well marked. Stigma dark brown. Apical part of wing totally covered with microtrichia, except for marginal areas in cells R4+5 and DM. Wing brownish tinged.

Fore femur dark chestnut-brown for about basal half, yellow-brown for the rest. Mid femur with similar brown colour for about basal three-quarters. Tibiae yellow-brown in basal parts, darker brown in apical parts. Hind leg deep black. Hind femur (fig. 64) remarkably long and slender, i. e. c. 4 times as long as wide; apical ctenidial section only occupying c. one-fourth of total length.

Ventrobasal section of hind femur with c. 6 small tubercles in a row, each one with a small setula. Ventroapical section with the usual armature; 4 black posteroventral setae before apex.

Hind tibia rather suddenly curved around middle, its colour uniformly black.

Tergum 1 black with yellowish anterolateral corners. Tergum 2 yellowish with large blackish area, composed of posterior and anterior fasciae and a median vitta of c. one-fourth tergal width. Tergum 3 yellowish with a triangular blackish area which is separated from posterior margin by a yellow vitta. Tergum 4 narrower than tergum 3, polished black, with extremely small anterolateral areas of tomentum; mid-posterior margin upturned and brownish and yellow. Sterna 2 to 4 well sclerotized, smooth.

Length: c. 10 mm.

Material examined.
Type material.
Holotype: ♀. "Indian Ocean / Christmas Is. / I-IV. 1933" (BMNH).

Additional material.
Paratype: ♀. Same data as holotype (CNC).

XVII. Species incertae sedis

Two species, both described in *Syritta* by Keiser (1958, 1971), cannot properly be retained in this genus. Undoubtedly they both belong to the "*Tropidia* group of genera" as established by Hippa (1978: 28), but their generic affiliation is not clear and must await a revision of the group.

"Syritta" tanalaorum Keiser, 1971

Figs 220, 221.

Syritta tanalaorum Keiser, 1971: 290.

We have examined the male "paratypoid" [labelled as paratype] of *Syritta tanalaorum* Keiser from "Ost-Madagaskar, Mananjary (Fia.), 17.8.1958". The possibility cannot be excluded that the male holotype from "Marofody" represents a different but closely related species; however, for the present discussion this is not important. One of us (WB) has collected a male of a species which is closely related to but not conspecific with the paratype. This specimen is labelled "E Madagascar: 3 km E Andekaleka, 8.IV.1982", and is also considered in the following discussion in which we argue that the taxon *Syritta tanalaorum* does not fit into our concept of *Syritta*. Keiser himself gave a hint when he wrote (p. 290): "... ohne Stachelborsten auf der Innenseite der Hinterschenkelspitze".

The taxon *Syritta tanalaorum* Keiser differs from *Syritta* in the following characters:
(1) face convex dorsally, straight on lower half, receding;
(2) scutum with a pair of tomentose vittae on disc;
(3) scutellum with a yellow posterior margin;
(4) scutellum with pale hair-like setae along ventral margin;
(5) marginal cross-veins continuous, parallel to posterior wing-margin;
(6) stigmal cell with an extra cross-vein at apex of cell;
(7) hind femur with a pre-ctenidial spina c. one-third before apex;
(8) ctenidial setulae of hind femur very sharp-tipped and irregularly arranged;
(9) anteroventral setae of hind femur in front of ctenidium not developed;
(10) posteroventral setae before apex of hind femur pale and hair-like, indistinguishable from other pilosity;
(11) each cercus divided, forming 2 sclerites;
(12) ejaculatory apodeme very reduced in size compared to size of aedeagal apodeme;
(13) superior lobes of theca with an apparently smooth distal margin, i. e. without a comb of minute setulae (a ctenidium).

With a few exceptions, none of the above character states is found in any of the known species of *Syritta*.

The majority of the listed character states are shared with the Madagascan genus *Calcaretropidia* Keiser, 1971, of which we have examined three species, including the

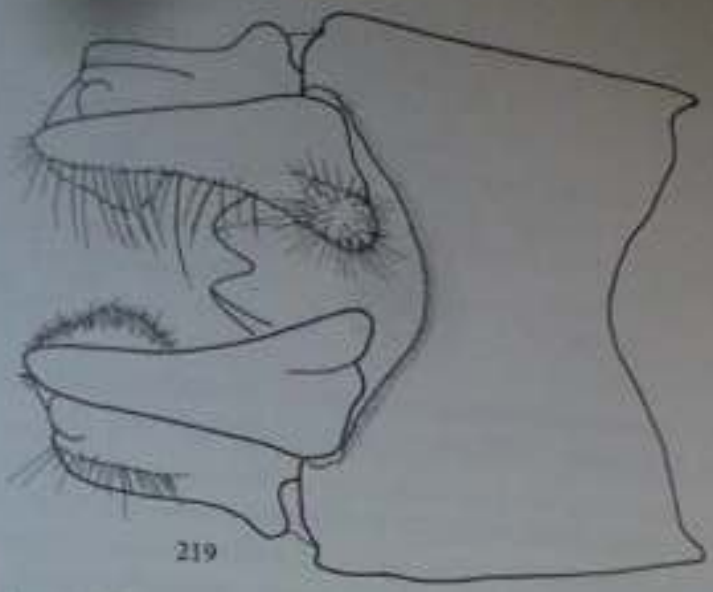

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Figure 219. Epandrium with appendages in dorsal view of *Calcaretropidia madagascariensis* Keiser, paratype, Madagascar, Mananjary.

type species, *C. madagascariensis* Keiser, 1971. These three species are rather large-sized (11-13 mm) compared to *tanalaorum* which is about 8 mm long as is the average size of a *Syritta*. They share with "*S.*" *tanalaorum* all the character states listed above with two exceptions: the face is not receding, but parallel with the occipital profile line, and the cercus is not totally divided and forming two sclerites except in the one (apparently undescribed) of the three species examined. However, in the type species, *C. madagascariensis* (fig. 219) a precursor situation can be seen as an anteromedian lobe of the cercus is clearly set off from the posterolateral section.

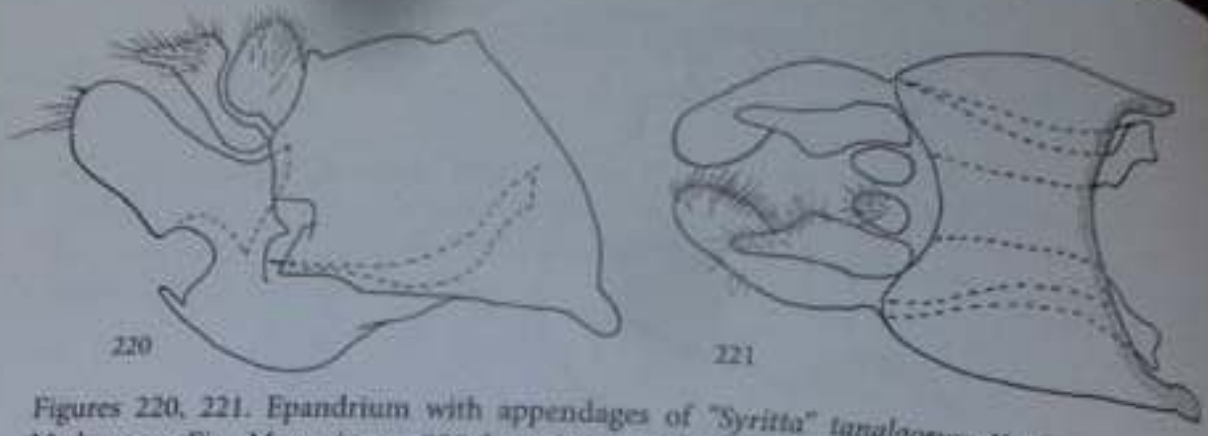
The three large-sized Madagascan species form a monophyletic group which is characterised by the following autapomorphies: an extra cross-vein developed between spurious vein and vein R4+5; male hind trochanter on the inner surface with a flattened spina that operates with the modified basotarsomere; hind femur with a setula-free concavity between the pre-ctenidial spina and the ctenidial row of setulae.

We do not propose to transfer "*S.*" *tanalaorum* Keiser from *Syritta* to *Calcaretropidia*. This must await a revision of that last mentioned genus and its allies.

Redescription – male (from the "paratypoid" of Keiser 1971).

Face moderately convex on dorsal part, ventral part straight; tomentum shiny whitish. Face receding, oral margin falling far short of level of frontal prominence. Eye contiguity c. 2.0. Vertical triangle with bicoloured tomentum: lead-grey on lower half, cinnamon-brown on upper half, and such tomentum also covering posterior part of the otherwise blackish ocellar plate. Largest facets c. 30 µm. Occipital margin uniformly greyish tomentose from vertex to gena. Gena yellow with a reddish bar anteriorly. Basoflagellomere brown-black with basoventral part paler brown; size c. 3.0 x 2.0; arista 5.6.

Anterior part of katepisternum and anteroventral corner of anepisternum with pure grey tomentum; remaining parts of these pleura with a grey tomentum having



Figures 220, 221. Epandrium with appendages of *"Syritta" tanalaorum* Keiser, paratype, Madagascar, Fia., Mananjary. – 220: lateral view; 221: dorsal view.

a strange reddish tinge. Postpronotum and lateral scutum to suture with more pale-yellow tomentum. Scutum blackish, dulled by a thin lead-grey tomentum, and with an indistinct pattern of two brown vittae. Scutal punctures small and sparse, with minute black setulae. A strip of tomentum along posterior margin of scutum. Scutellum black, with a well marked rim which is yellowish and is provided with c. 16 short black thorn-like marginal setae. More ventrally a row of pale hair-like setae.

Regular veins and spurious vein coarse, brown-black. Wing surface brownish tinged, stigma dark brown, extending to apex of vein R1; before apex of cell R1 two extra cross-veins. Cell R4+5 pointed (as in fig. 222). Marginal cross-veins continuous. Apical part of wing entirely covered with distinct microtrichia.

Fore and mid legs brown. Hind femur moderately incrassate, sharply divided into a long basal and a short apical section in a ratio of c. 2 : 1. The ventrobasal profile line straight, suddenly interrupted by a raised pre-ctenidial spina at base of ventroapical section. Colour uniformly brown.

Ventrobasal section of hind femur in its subapical part with a field of 10 to 12 small, irregularly arranged, very sharp-pointed, black setulae; also some thin pale setae are present posteroventrally. Spina at base of ventroapical section with a few setae anteriorly; the row of ctenidial setulae short, the anteroventral setae not distinct and posteroventral setae before apex represented by some thin, weak, pale setae.

Hind tibia with its largest width c. one-fourth before apex, otherwise unmodified except for a sharp anteroventral carina; colour dark brown; very short pile on ventral surface.

Tergum 1 black, with a lead-grey tomentum, only extreme anterolateral corners yellow. Tergum 2 with large brown-black, hourglass-shaped area which leaves relatively small areas yellow. Tergum 3 with a brown-black posterior fascia occupying about half tergal length laterally, and sending a similarly coloured vitta of c. one-fourth tergal width to anterior margin. Tergum 4 narrower than tergum 3, parallel-sided, blackish with a narrow brownish posterior margin. Lateral tomentose areas oval, not arranged in anterolateral corners as in *Syritta* but more posteriorly. Sternum 4 with a straight posterior margin.

Genitalia. Lateral view (fig. 220): cercus divided, composed of a small anteromedian plate and a larger posterolateral plate. Dorsal lobe of surstylus short and wide, with a ventral subbasal lobe, broadly confluent with ventral surstylar lobe which has

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Figure 222. Apical part of wing of "*Syritta*" *triangulifera* Keiser, paratype, Ceylon [Sri Lanka], Sab., Belihul Oya.

a very narrow posterior process. Dorsal view (fig. 221): the anterotmedian section of cerci oval. Posterolateral cercal section with median lobe, narrowly pointed. Dorsal surstylar lobe curved, of nearly equal width throughout, broadly rounded apically, and slightly convergent. Major part of pilosity situated on the median side of apical part. Tergum 9 rather asymmetric. Surstylar apodemes separate, with a longitudinal fold for entire length. Ejaculatory apodeme minute, only 1/4 as long as aedeagal apodeme; its hood shaped as a transverse rod.

Length: c. 8 mm.

Female.
Unkown.

Material examined.
Type material.
"Paratypoid": ♂. Madagascar: Mananjary, 17.III.58, F. Keiser (NHMB).

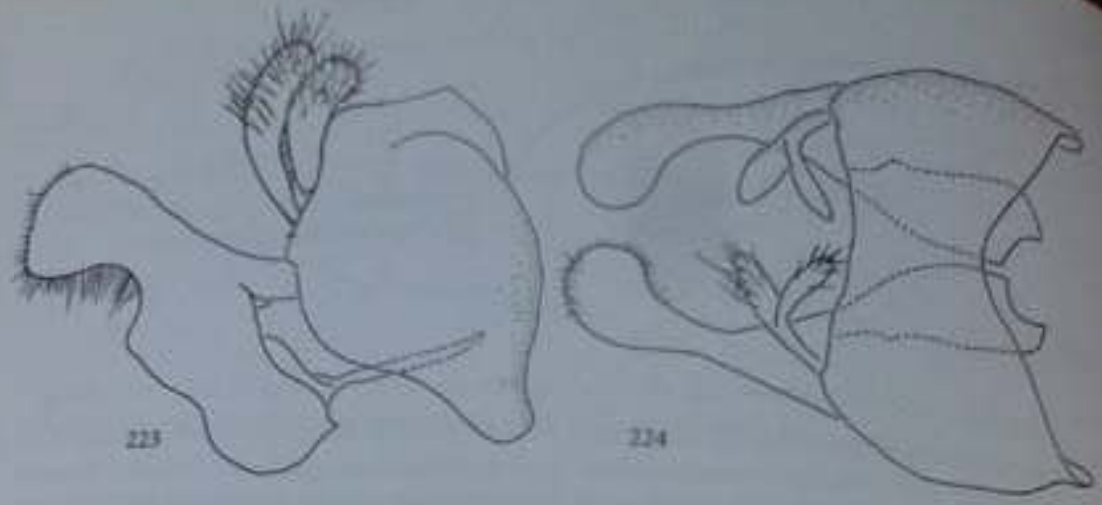
Addional material.
1 ♂. Madagascar: 3 km E' Andekaleka (Lohariandava), 8.IV.1982, leg. Barkemeyer (Bkm).

"Syritta" triangulifera Keiser, 1958

Figs 222-224.

Syritta triangulifera Keiser, 1958: 226.

Both sexes of this species have been available to us. The taxon differs from our concept of *Syritta* in the following characters:
(1) face markedly concave on dorsal two-thirds, tuberculate in ventral one-third;
(2) upper occipital margin not exposed;
(3) anepimeron semishining black, only tomentose in posteroventral corner;
(4) marginal cross-veins almost continuous, with a convex lobe at base of apical marginal vein (fig. 222);
(5) cell R4+5 (fig. 222) pointed;
(6) hind femur in both sexes with a pre-ctenidial spina c. one-third before apex;
(7) hind femur with pale hair-like posteroventral setae before apex;



Figures 223, 224. Epandrium with appendages of *"Syritta" triangulifera* Keiser, paratype, Ceylon, [Sri Lanka], Sab., Belihul Oya. – 223: lateral view; 224: dorsal view.

(8) cercus (fig. 224) split, forming two sclerites;
(9) surstylar apodemes (fig. 223) in an anterior position;
(10) ejaculatory apodeme reduced in size compared to the size of aedeagal apodeme;
(11) superior lobes of theca with an apparently smooth distal margin, i. e. without a comb of minute spinulae (a ctenidium).

We believe that the closest relatives of *S. triangulifera* will be found among the members of the Madagascan genus *Calcaretropidia* Keiser (1971), the members of which have a more or less distinctly bisegmented cercus and also have a number of additional synamomorphies compared to *S. triangulifera* (see also the introduction to *S. tanalaorum*).

Redescription – male.
Face in profile concave in dorsal two-thirds, and forming a convex tubercle on ventral one-third. Face receded, oral margin not reaching level of frontal prominence by far. Colour of face yellowish, with thin layer of tomentum. Eye contiguity c. 4.5. Largest facets c. 50 µm. Frons without pale tomentum, entire frons being dull black in dorsal view; ocellar plate shining black. Occipital margin non-existent as occiput is concave from actual hind eye-margin. Basoflagellomere pale yellow as face; size c. 3.0 x 2.0; arista 5.6.

Anterior part of katepisternum and anepisternum lead-grey, posterior part of same pleura grey to grey-yellow tomentose. Anepimeron subshiny black except for tomentose posteroventral corner. Postpronotum and lateral scutum to suture yellow-grey tomentose. Scutum black, with a coarse and dense covering of punctures, posteriorly with a narrow strip of tomentum from wing-base to wing-base. Scutellum with same colour and puncturation as on scutum; 4 pairs of very short black marginal setae; their length c. 40 µm, which is much shorter than the whitish mesonotal pile; without setae more ventrally.

Regular veins and spurious vein (fig. 222) rather coarse, well-marked, dark brown. Stigma dark brown, covering basal part of cell. Vein M1 (= apical marginal vein)

reaches vein R4+5 at an angle of c. 60°, and cell R4+5 consequently pointed. Apical marginal vein with a convexity in basal part. Microtrichia are present in apical parts of cells R1, R2+3 and R4+5 as well as along apico-posterior wing margin. Cell DM practically free of microtrichia. Alula with a very sparse provision of microtrichia.

Fore and mid legs yellowish. Hind femur moderately incrassate, sharply divided into a long basal and a short apical section in a ratio of c. 2 : 1. Ventrobasal profile line slightly concave, especially in basal part. Ventroapical section beginning with a suddenly raised pre-ctenidial spina of moderate size. Colour of hind femur: yellow in slightly less than basal half, brown-black in slightly more than apical half.

Ventrobasal section of hind femur in its subapical part with a field of 12 to 15 irregularly arranged, short, sharply pointed, black setulae; also with ventrally directed thin pale setae, the longest of which equal tibial width in length. Ventroapical section of hind femur with a ctenidial row of irregularly arranged, sharp-tipped setulae; in front of these 6 anteroventral setae the most basal of which is situated on the spina, posteroventrally before apex with some thin pale setae (not to be compared in strength with the setae found in *Syritta*).

Hind tibia with its largest width c. 1/4 before apex, and otherwise unmodified except for a sharp anteroventral carina; yellowish in colour with a brownish ring subbasally and subapically. Ventrally with a pile of short pale setae. The number of appressed spines in basal part low, c. 16; this reflects the short length of the apical section of hind femur.

Tergum 1 yellow, with a parallel-sided blackish bar along posterior margin. Terga 2 and 3 yellow, each with a blackish posterior fascia which laterally occupies about half tergal length, then has a deep concavity and along mid-line sends a median vitta towards anterior margin of tergites; this is reached on tergum 2, but not on tergum 3. Tergum 4 brownish to blackish; anterolaterial areas of tomentum small and indistinct. Sternum 4 with a straight hind margin.

Genitalia. Lateral view (fig. 223): cercus dorso-ventrally divided, showing its bisegmentation, weakly sclerotized; with a "root" attached to postero-lateral half. Dorsal lobe of surstylus short and very wide, with long pile on ventro-median surface, and broadly fused with a ventral surstylar lobe which is subrectangular with broadly rounded anterior corners. Surstylar apodeme very anterior in position. Dorsal view (fig. 224): both cercal elements narrowly rounded apically. Dorsal surstylar lobes with circularly expanded apex. Surstylar apodemes separate. Theca angularly bent. Ejaculatory apodeme in dorsal view with a small V-shaped hood; in same view the hood of the aedeagal apodeme is linear.

Female.

Face as in male. Frons very narrow, at its narrowest less than 2 times as wide as anterior ocellus; lower frons yellowish for a distance equalling height of ocellar plate; remaining part of frontal stripe with dark tomentum. Other characters of the head, and of the body, wings and legs exactly as described for the male.

Length: 8-9 mm.

Material examined.
Type material.
Holotype: ♂. Sri Lanka ["Ceylon"], Sab. [= Sabaragamuwa Prov.], Belihul Oya, 11.II.54, leg. F. Keiser (NHMB).

Additional material.
1 ♂ paratype. Same data as holotype (NHMB).
2 ♀♀ (allotype and paratype). Sri Lanka [Ceylon], C. P., Haragama, 29. & 30.XII.53, leg. F. Keiser (NHMB).

Distribution.
This species is only known from Sri Lanka.

Syritta sejuncta Walker, 1849

Helophilus sejunctus Walker, 1849: 604.

Holotype: ♀. Printed label: "Senegal" / handwritten label: "*Helophilus sejunctus* Wlk" / round blue-margined label: "Type" / round red-margined label: "Holotype" (BMNH).

Condition: very mouldy. Left wing intact, other wing damaged. Right hind leg missing. Tarsomeres of left hind leg missing. Also parts of other legs missing (only left mid leg with tarsomeres). Head has been loose, left basoflagellomere missing.

Identity: based on the presence of a low lamina on hind tibia we conclude that *sejuncta* is very close to but probably not identical with *S. leucopleura*.

Differences are: arista very coarse; no tomentum on frons; fore and hind femora extensively brown-black basally; hind femur coarser and with coarser tubercles than in *S. leucopleura*; and the median vitta of tergum 2 wider.

One of us (LL) does not believe that the type-locality: "Senegal" is correct.

Acknowledgements

This study has been supported by numerous colleagues who have freely given information on various aspects and/or have loaned material from the collections in their care (see the list of material studied). Without implying any disrespect to those not mentioned here by name, we particularly thank Pieter van Doesburg Jr (Leiden), who began a study of *Syritta* many years ago and who provided us with his results. F. Christian Thompson (Washington, D.C.) discussed several aspects of syrphid systematics with one of us (LL); and Brian R. Stuckenberg (Pietermaritzburg) gave one of the authors (WB) invaluable information on South African ecology and important South African collecting sites. Thomas Pape (Stockholm, now Copenhagen) critically read the manuscript, and Adrian C. Pont (Oxford) kindly checked the English version and made a number of suggestions to improve the manuscript.

List of collections

Museums and institutions

AMGS	Albany Museum, Grahamstown, South Africa (S. Gess, F. W. Gess)
AMNH	American Museum of Natural History, New York, USA (D. Grimaldi)
AMS	Australian Museum, Sydney, Australia (D. J. Bickel)
ANIC	Australian National Insect Collection, CSIRO, Canbera City, Australia (C. Lambkin, J. Recsei)
BMNH	The Natural History Museum [formerly British Museum (Natural History)], London, United Kingdom (N. Wyatt)
BPBM	Bernice B. Bishop Museum, Honolulu, USA (N. L.Evenhuis)
CNC	Canadian National Collection of Insects, Ottawa, Canada (J. M. Cummings, J. R. Vockeroth)
DEI	Deutsches Entomologisches Institut, Müncheberg (formerly Eberswalde), Germany (F. Menzel)
IRSNB	Institut Royal des Sciences Naturelles de Belgique, Brussels, Belgium (P. Grootaert)
HNHM	Hungarian Natural History Museum, Budapest, Hungary (M. Foldvari)
MCSN	Museo Civico di Storia Naturale "Giacomo Doria", Genova, Italy (R. Poggi)
MNHN	Muséum National d'Histoire Naturelle, Paris, France (M. Baylac)
MRAC	Musee Royale de l'Afrique Centrale, Tervuren, Belgium (M. De Meyer, E. De Cominck)
MTD	Museum für Tierkunde, Dresden, Germany (C. Kehlmaier)
MZHF	Zoological Museum, University of Helsinki, Finland (G. Stähls-Mäkelä)
MZLU	Zoological Museum, Lund University, Lund, Sweden (R. Danielsson)
NHMB	Naturhistorisches Museum, Basel, Switzerland (M. Brancucci)
NHRS	Naturhistoriska Riksmuseet, Stockholm, Sweden (T. Pape)
NMSA	Natal Museum, Pietermaritzburg, South Africa (D. Barraclough, C. Conway, M. B. Mostovski, B. R. Stuckenberg)
NMW	Naturhistorisches Museum Wien, Wien, Austria (R. Contreras-Lichtenberg)
QM	Queensland Museum, South Brisbane, Queensland, Australia
RMNH	Nationaal Natuurhistorische Museum ("Naturalis") [formerly Rijksmuseum van Natuurlijke Historie), Leiden, The Netherlands (K. Achterberg, P. H. van Doesburg Jr)
SAMC	Iziko Museum of Capetown (formerly South African Museum), Cape Town, South Africa (H. Robertson, M. Cochrane)
SMNS	Staatliches Museum für Naturkunde, Stuttgart, Germany (H.-P. Tschorsnig)
SMF	Forschungsinstitut und Naturmuseum Senckenberg, Frankfurt am Main, Germany (P. Haase, I. Rademacher)
SZMN	Institute of Animal Systematics and Ecology, Siberian Zoological Museum, Novosibirsk, Russia (A. Barkalov)
UMO	Hope Entomological Collections, University Museum of Natural History, Oxford (A. C. Pont)
USNM	National Museum of Natural History [formerly United States National Museum], Washington D.C., USA (F. C. Thompson)
WAMP	Western Australian Museum, Perth, Australia (P. Harnich)
ZMHB	Museum für Naturkunde der Humboldt-Universität, Berlin, Germany (J. Ziegler)

ZMAN	Instituut voor Taxonomische Zoölogie, Zoologisch Museum, Amsterdam, The Netherlands (B. Brugge)
ZIN	Zoological Institute, St. Petersburg, Russia (S. Kuznetzov)
ZSMC	Zoologische Staatssammlung, Munich, Germany (M. Kotrba, W. Schacht)
ZMUC	Zoological Museum, University of Copenhagen, Denmark (L. Lyneborg)

Private collections

Bkm	Werner Barkemeyer, Flensburg/Oldenburg, Germany (private collection)
coll. Nielsen	Tore R. Nielsen, Sandnes, Norway (private collection)
coll. Claußen	Claus Claußen, Flensburg, Germany (private collection)
coll. Hauser	Martin Hauser, Urbana, USA (private collection)

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