

Species of *Metasyrphus* from Afghanistan and Kirghizia, with keys and descriptions of three new species (Diptera, Syrphidae)

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Taxonomy, *Metasyrphus klapperichi* sp. n., *Metasyrphus stackelbergi* sp. n., *Metasyrphus pseudonitens* sp. n.

Abstract. Keys for identification of the males of 14 species and the females of 11 species of the genus *Metasyrphus* known from Afghanistan and Kirghizia are given. Three new species from Afghanistan are described: *M. klapperichi*, *M. stackelbergi* and *M. pseudonitens*. Descriptions and drawings of male terminalia and a list of specimens of 5 other species examined are given, namely: *M. tshatkalensis*, *M. latimacula*, *M. verruciventris*, *M. asiaticus* and *M. tjanshanicus*.

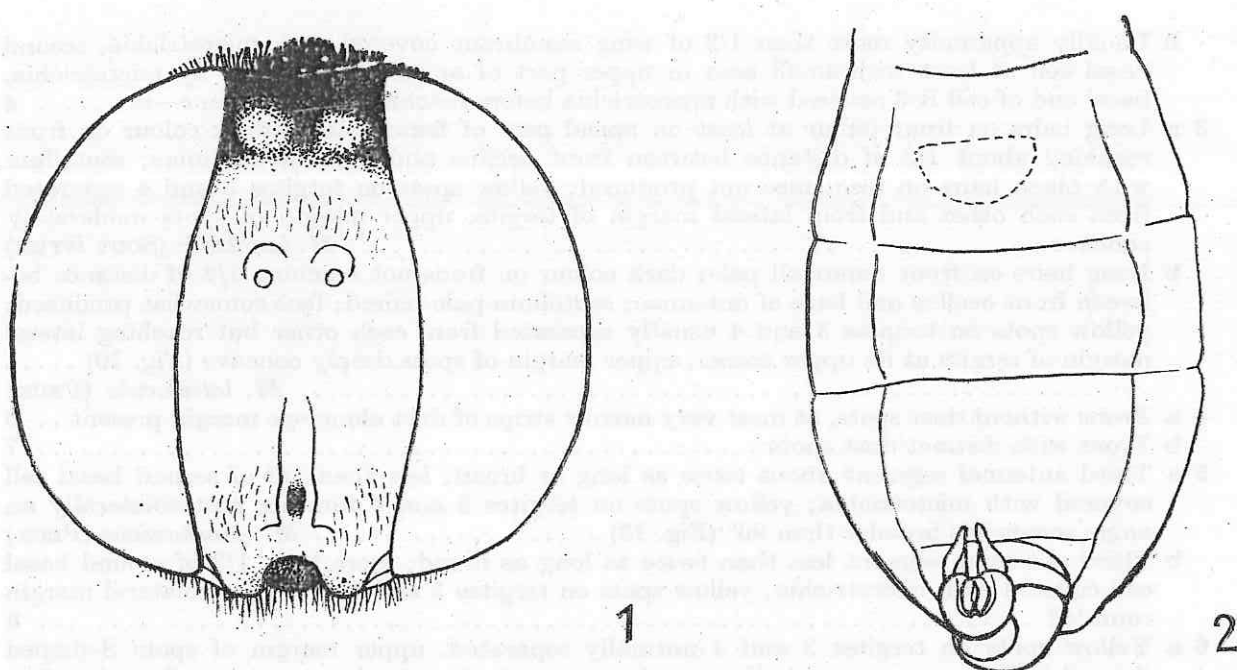
Recently PECK (1966, 1969, 1972) described some new species of the genus *Metasyrphus* MATSUMURA, 1917 from Kirghizia, and we have found 3 further new species in collections made by Mr. J. Klapperich and Prof. D. Povolný and Doc. F. Tenora in North Afghanistan. The species of this genus are difficult to distinguish and we have therefore constructed keys to include species from both territories. Although Kirghizia and North Afghanistan are not adjacent, they are not geographically very distant from each other. Moreover, they are connected by mountain chains which may be significant since the species described by PECK and by us occur especially in the mountainous areas. The key comprises all the species identified by us in the collections from Afghanistan and by PECK (1968) in Kirghizia. The application of the key is much broader, encompassing the whole western part of the southern Palaearctic region, including North Africa, the Arabian peninsula and Central Asia, as there are no known species there which would not occur in Afghanistan or Kirghizia.* The paper also contains the descriptions of 3 new species from Afghanistan. Male terminalia are described and illustrated for 5 species described by PECK. As in our previous papers (DUŠEK & LÁSKA, 1973, 1976) *M. luniger* is taken as a standard and the descriptions consist principally of characters differing from *M. luniger*.

Key to males

- 1 a Eye distinctly hairy (only female is known). Large species. Afghanistan. Body 12.4—13 mm, wing 9—10 mm *M. klapperichi* sp. n.
- b Eye bare or practically bare (at most with scattered minute hairs maximally 50 µm long), 2
- 2 a Anterior angle of approximation of eyes distinctly broader than 90°; microtrichia on wing very reduced covering about 1/2 of wing membrane — second basal cell practically bare, basal end of cell R 3 bare at least up to level of vein r—m 3
- b Anterior angle of approximation of eyes about 90° or less; microtrichia covering more than 1/2 of wing membrane — second basal cell covered with microtrichia at least on upper part of apical end, basal end of cell R 3 covered with microtrichia before reaching level of vein r—m 5

* A new species *Metasyrphus libyensis* from Libya was described by NAYAR (1978) when this paper was in print, this species is not included in the keys.

- 3 a Anterior angle of approximation of eyes very broad, usually broader than 100° ; hairs on scutellum mainly black; long hairs on front femur in apical half of femur black; yellow spots on tergites 3 and 4 normally not reaching lateral margin of tergite; large species. North Europe, Siberia, Kirghizia. Body 10–13 mm, wing 8–10 mm *M. lundbecki* (SOOT RYEN)
- b Anterior angle of approximation of eyes normally 90° – 100° ; hairs on scutellum usually all pale; long hairs on front femur all pale; yellow spots on tergites 3 and 4 normally reaching lateral margin of tergite at their upper corner; smaller species: 9–11.5 mm 4
- 4 a Yellow spots on tergites 3 and 4 rather resembling deep spoons with upper margin almost regularly concave (Fig. 8); face not strikingly broad and not produced; upper part of eye with rather distinctly demarcated area of larger facets. Kirghizia. Body 10.5–11.5 mm, wing 8–9 mm *M. tshatkalensis* (PECK)
- b Yellow spots on tergites 3 and 4 rather resembling overturned retort with upper margin ascending more steeply towards the middle of tergite than towards the margin (Fig. 9); face broad and somewhat produced; upper part of eye with facets rather larger but extending gradually. Kirghizia, Mongolia. Body 9–11.5 mm, wing 8–9 mm *M. latimacula* (PECK)
- 5 a Sternite 3 with bituberculate protuberance (Fig. 19); face almost completely yellow, rather narrow; anterior angle of approximation of eyes 90° or less; long hairs on front femur all pale; scutellar hairs pale; wing with about $1/2$ of second basal cell covered with microtrichia; yellow spots on tergites 3 and 4 relatively broad usually touching in middle but separated from side margin (Fig. 11); dark spot on sternite 2 usually small, on sternite 3 large including the protuberance; sternites 4 and 5 usually without dark spot. Kirghizia, Mongolia. Body 9–10 mm, wing 8–9 mm *M. verruciventrifera* (PECK)
- b Sternite 3 without any protuberance 6
- 6 a Male terminalia remarkably large (Fig. 2). Postocular orbits near vertical triangle very broad; hairs on scutellum normally all pale; smaller species. Palearctic, Ethiopian. Body 8–10 mm, wing 6.6–8.6 mm *M. corollae* (FABR.)
- b Male terminalia not remarkably large 7
- 7 a Postocular orbits near vertical triangle narrow (as in *M. luniger* or narrower) 8
- b Postocular orbits near vertical triangle broad (broader than in *M. luniger*) 12
- 8 a Postocular orbits near vertical triangle very narrow; hairs on face, scutellum and front femur (including base of femur) usually all black; lateral margin of tergite 5 usually at least partially dark. Tergites 3 and 4 usually with entire narrow yellow band; dark spots on sternites narrow and angular. Palearctic. Body 9–11 mm, wing 6.7–7.8 mm *M. nitens* (ZETT.)
- b Postocular orbits not so narrow (about as in *M. luniger*); hairs on lower part of face pale or black; hairs on scutellum or at least on its hind margin pale; long hairs on front femur at least at base of femur pale; lateral margin of tergite 5 pale 9
- 9 a Front and mid femora dark at base, usually $1/5$ – $1/2$ of their length; facial tubercle or at least mid part of oral margin dark; hairs on scutellum black at least in centre of disc; all or some of long hairs on apical part of front femur usually black 10
- b Whole femora pale, except for extreme base rarely dark; face entirely pale; hairs on scutellum all pale; long hairs on front femur all pale 11
- 10 a Yellow spots on tergites 3 and 4 usually connected forming a narrow band, narrower or only slightly broader than black band separating them from each other (Fig. 6); alula usually entirely covered with microtrichia. Afghanistan. Body 7.7–11.2 mm, wing 6.6 to 9.6 mm *M. pseudonitens* sp. n.
- b Yellow spots on tergites 3 and 4 usually separated from each other, if connected then about twice as broad as black band separating them; alula with a bare area at middle of base. Palearctic. Body 8–12 mm, wing 7.9–9.5 mm *M. luniger* (MEIG.)
- 11 a Yellow spots on tergites 3 and 4 usually separated from each other and from lateral margin of tergite (Fig. 12); hairs on mesonotum not apparently short; face narrow, but broader than in the next species. Kirghizia. Body 10–11 mm, wing 8–8.5 mm *M. asiaticus* (PECK)
- b Yellow spots on tergites 3 and 4 usually connected and reaching lateral margin of tergite; hairs on mesonotum shorter than in other species; face very narrow. Southern Palearctic. Body 8–10 mm, wing 7–8 mm *M. interrumpens* (WALK.)
- 12 a Segment 3 of antenna about twice as long as broad; microtrichia on wing covering less than $1/2$ of second basal cell; anterior angle of approximation of eyes about 90° or somewhat more. Yellow spots on tergites 3 and 4 rather narrowing towards centre of tergite (Fig. 14), usually slightly connected in the middle and touching lateral margin of tergite at their upper corners. Kirghizia, Afghanistan. Body 11.5–13 mm, wing 8–10 mm *M. tjanshanicus* (PECK)



Figs. 1-2: 1 — *Metasyrphus interruptens* ♀ (Israel), head in frontal view. 2 — *M. corollae* ♂ (Nessebar), abdomen, ventral.

- b Length of segment 3 of antenna not reaching double its width; microtrichia usually covering more than $1/2$ of second basal cell; anterior angle of approximation of eyes slightly smaller than 90° 13
- 13 a Yellow spots on tergites 3 and 4 normally separated, distinctly broader at inner end than at outer end, upper margin of spots concave (Fig. 4); vertical triangle hardly dusted; face slightly produced. Afghanistan. Body 10.5–11.6 mm, wing 8–9.6 mm *M. stackelbergi* sp. n.
- b Yellow spots on tergites 3 and 4 of regular shape, usually connected, upper margin almost straight; base of vertical triangle dusted to almost basal ocelli; face not produced. Hol-arctic. Body 8.8–9.4 mm, wing 6.6–7.4 mm *M. latifasciatus* (Macq.)

Key to females

The females of *M. tshatkalensis* (PECK) and *M. asiaticus* (PECK) are not known, that of *M. verruciventrus* (PECK) has been described but was not at our disposal. These three species are therefore not included in the key.

The female of *M. tshatkalensis* would probably be identified as *M. latimacula* according to the key, but it probably does not have the upper margin of yellow spots on the tergites so deeply concave.

The females of *M. asiaticus* and *M. verruciventrus* would probably be identified as *M. interruptens* in the key, but both species are likely to differ from *M. interruptens* by a broader face* and by longer hairing of the body. *M. asiaticus* probably has the yellow spots on tergites 3 and 4 rather separated.

- 1 a Eye distinctly hairy. Face apparently produced forwards; large species (12.4–13 mm) *M. klapperichi* sp. n. 2
- b Eye bare 2
- 2 a About $1/2$ of wing membrane covered with microtrichia, second basal cell practically bare, basal end of cell R 3 bare at least up to level of vein r–m. Large species (10–13 mm) ... 3

* According to PECK (1972) the face at the level of antennae is about as broad as $1/3$ of the width of head.

- b Usually apparently more than 1/2 of wing membrane covered with microtrichia, second basal cell at least with small area in upper part of apical end covered by microtrichia, basal end of cell R 3 covered with microtrichia before reaching level of vein r-m 4
- 3 a Long hairs on front femur at least on apical part of femur black; dark colour on frons reaching about 1/2 of distance between front ocellus and base of antennae; scutellum with black hairs on disc; face not produced; yellow spots on tergites 3 and 4 separated from each other and from lateral margin of tergite, upper margin of spots moderately concave *M. lundbecki* (SOOT RYEN)
- b Long hairs on front femur all pale; dark colour on frons not reaching 1/2 of distance between front ocellus and base of antennae; scutellum pale haired; face somewhat produced; yellow spots on tergites 3 and 4 usually separated from each other but reaching lateral margin of tergite at its upper corner, upper margin of spots deeply concave (Fig. 10) *M. latimacula* (PECK)
- 4 a Frons without dust spots, at most very narrow strips of dust along eye margin present .. 5
- b Frons with distinct dust spots 7
- 5 a Third antennal segment about twice as long as broad; less than 1/3 of second basal cell covered with microtrichia; yellow spots on tergites 3 and 4 forming posterolaterally an angle somewhat broader than 90° (Fig. 13) *M. tjanshanicus* (PECK)
- b Third antennal segment less than twice as long as broad; more than 1/3 of second basal cell covered with microtrichia; yellow spots on tergites 3 and 4 with posterolateral margin rounded 6
- 6 a Yellow spots on tergites 3 and 4 normally separated, upper margin of spots S-shaped (lateral half concave, inner half convex), inner end of spots closer to base of tergite than outer end (Fig. 5); face somewhat produced (Fig. 21); dark colour on frons usually reaching about 1/4 to 1/3 only of distance between front ocellus and base of antennae *M. stackelbergi* sp. n.
- b Yellow spots on tergites 3 and 4 usually connected, less frequently separated having upper margin almost straight and almost parallel with base of tergite; face not produced; dark colour on frons usually reaching 1/2 or at least 1/3 of distance between front ocellus and base of antennae *M. latifasciatus* (MACQ.)
- 7 a Face very narrow (Fig. 1); long hairs on front femur all pale; face pale or almost pale. All legs pale; hairing of body generally shorter than in other species; yellow spots on tergites 3 and 4 broad, usually connected and reaching lateral margin of tergite *M. interrumpens* (WALK.)
- b Face not very narrow; long hairs on front femur at least in apical part of femur black; facial tubercle or at least centre of oral margin darkened 8
- 8 a Legs unicolorous yellow to brownish, only exceptionally base of femora darkened; long hairs on front femur all black including base of femur; dust spots on frons reaching usually only 1/4 of width of frons. Yellow spots on tergites 3 and 4 narrow and usually connected *M. nitens* (ZETT.)
- b Front and mid femora usually dark for at least basal 1/5—1/4; long hairs on front femur in apical part of femur black, in basal part of femur pale, when in extremely dark specimens all hairs are black then at least 1/2 of front femur dark; dust spots on frons usually reaching at least 1/3 of width of frons 9
- 9 a Scutellum pale haired; dark colour on frons usually reaching 1/4 to 1/3 only of distance between front ocellus and base of antennae. Yellow spots on tergites 3 and 4 separated or connected and reaching or not reaching lateral margin of tergite, but usually separated in middle and reaching lateral margin of tergite *M. corollae* (FABR.)
- b Scutellum black haired on disc or at least with some black hairs; dark colour on frons usually reaching 1/2 or more of distance between front ocellus and base of antennae ... 10
- 10 a Yellow spots on tergites 3 and 4 usually connected and reaching lateral margin of tergite forming a narrow yellow band on both the tergites, these yellow bands narrower than black band separating them (Fig. 7); dusting of frons less intensive; whole alula covered with microtrichia *M. pseudonitens* sp. n.
- b Yellow spots on tergites 3 and 4 usually separated and not reaching lateral margin of tergite, if connected then usually broader than black band separating them; dusting of frons intensive; alula with a bare area in centre at base *M. luniger* (MEIG.)

Metasyrphus (Metasyrphus) klapperichi sp. n.

(Figs. 3, 15)

Female. Eye distinctly hairy, hairs about 100 µm long. Face broad, broader than in *M. luniger*, more produced in profile than in any another

palaeartic species of *Metasyrphus*. Dust spots on frons rather triangular, somewhat narrower than in *M. luniger*. Dark colour on frons reaching about 1/3 to 1/2 only of distance between front ocellus and base of antennae. Dark spots above antennae present or absent. Facial tubercle and centre of oral margin dark, otherwise oral margin pale. Hairs on lower part of face pale. Segment 3 of antenna somewhat longer than in *M. luniger*.

Hairy areas in basal corners of sternopleuron separated from each other and metasternum hairy (as in other species of *Metasyrphus* s. str. differing thus from *Scaeva*). Scutellar hairs long, pale. Microtrichia on wing membrane more reduced than in *M. luniger*, less than 1/4 of second basal cell covered with microtrichia and apical margin of wing with a stripe without microtrichia or with reduced microtrichia. Second anal vein somewhat curved into cell 1 A before apex. Approximately basal 1/5 of front and mid femora and extreme base only of hind femur dark (in specimens examined). Long hairs on apical part of front femur black, on basal part of femur pale.

Yellow spots on tergites 3 and 4 similar to those in *M. luniger*: spots on tergite 3 separated from side margin of tergite and narrowly separated from each other, spots on tergite 4 separated from side margin but almost or fully connected in middle in specimens examined. Lateral margin of tergite 5 yellow. Hairs on dorsal side of abdomen apparently long when compared with *M. luniger* and other species. Dark sternal spots relatively large, rectangular.

Length: body 12.4—13 mm, wing 9.6—9.8 mm.

Holotype ♀: Afghanistan, Gebirge Badakschan, Sarekanda, 4200 m, 29. vii. 1953 (leg. J. Klapperich), length: body 13 mm, wing 9.6 mm, width: head 3.6 mm, abdomen 3.6 mm. Deposited in the Department of Entomology, National Museum, Praha.

Paratype ♀: the same locality, dates and deposition as holotype.

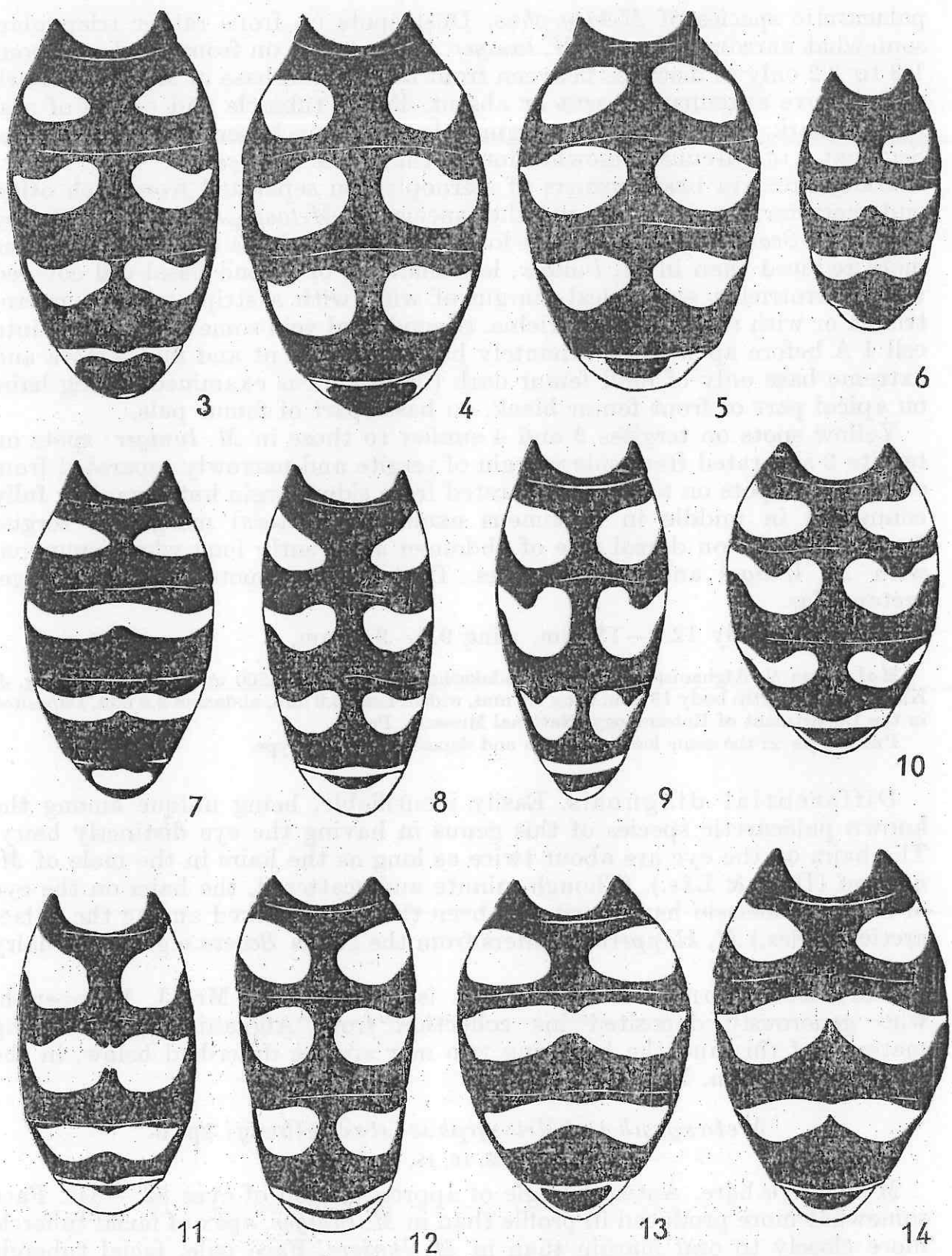
Differential diagnosis. Easily identifiable, being unique among the known palaeartic species of this genus in having the eye distinctly hairy. The hairs on the eye are about twice as long as the hairs in the male of *M. nielsenii* (Duš. & Lás.). (Though minute and scattered, the hairs on the eye of male *M. nielsenii* have until now been the most marked among the palaeartic species.) *M. klapperichi* differs from the genus *Scaeva* e.g. by the hairy metasternum.

Derivatio nominis. The species is named after Mr. J. Klapperich, who generously deposited his collection from Afghanistan, containing material of this and the following two new species described below, in the National Museum, Praha.

Metasyrphus (Metasyrphus) stackelbergi sp. n.

(Figs. 4, 5, 16, 18, 21, 25)

Male. Eye bare. Anterior angle of approximation of eyes 82°—84°. Face somewhat more produced in profile than in *M. luniger*, apex of facial tubercle more closely to oral margin than in *M. luniger*. Face pale, facial tubercle broadly or narrowly dark, oral margin partially (holotype) or fully (paratype No. 1) dark. Hairs on lower part of face all pale (also in paratype No. 1, which represents a darker form). Postocular orbits broader than in *M. luniger*, almost as broad as in *M. latifasciatus*. Dust on postocular orbits less intensive at vertical triangle and not reaching base of vertical triangle (unlike *M. lati-*



Figs. 3—14: Abdomen, dorsal: 3 — *Metasyrphus klapperichi* ♀, holotype (Sarekanda). 4 — *M. stackelbergi* ♂, holotype (Sarekanda). 5 — *M. stackelbergi* ♀, paratype No. 2 (Sarekanda). 6 — *M. pseudonitens* ♂, holotype (Bashgultal). 7 — *M. pseudonitens* ♀, paratype No. 3 (Bashgultal). 8 — *M. tshatkalensis* ♂, paratype (Tshatkal). 9 — *M. latimacula* ♂ (Muz-Bulak). 10 — *M. latimacula* ♀ (Ak-Shirjak). 11 — *M. verruciventrus* ♂ (Sary-Dzhaz). 12 — *M. asiaticus* ♂, paratype (Tshatkal). 13 — *M. tjanshanicus* ♀ (Do Shak). 14 — *M. tjanshanicus* ♂ (Sary-Dzhaz).

fasciatus). Segment 3 of antenna resembling that of *M. luniger* or somewhat shorter but longer than in *M. latifasciatus*, dark above and pale below.

Scutellum pale haired with some black hairs intermingled on disc. Pleurites glittering, more glittering than in *M. luniger*. Microtrichia covering wing membrane in greater extent than in *M. luniger*. About $\frac{2}{3}$ to $\frac{4}{5}$ of second basal cell and apparently whole alula (examination difficult in both specimens) covered with microtrichia. About basal $\frac{1}{4}$ to $\frac{1}{2}$ of front and mid femora and about $\frac{2}{3}$ to $\frac{4}{5}$ of hind femur dark. Yellow spots on tergite 2 rather rounded, separated from each other and reaching or not reaching lateral margin of tergite. Yellow spots on tergites 3 and 4 rather broad, about as broad as long, widening towards centre of tergite, separated from each other and from lateral margin of tergite. Upper margin of spots concave in outer part of spot but convex in inner part. Dark spots on sternites relatively broad, rather rectangular.

Male terminalia. Hypandrium rather large, semioval with side corners short but pointed. Head of pyxis uneven with well developed teeth, lower tooth markedly thick and about twice as long as upper one.

Female. Frons without distinct dust spots. Dark colour on frons reaching about $\frac{1}{4}$ to $\frac{1}{3}$ of distance between front ocellus and base of antennae. Dark spots above antennae absent. Wing membrane outside marginal veins particularly at apex of wing broader than in *M. luniger*. About $\frac{1}{4}$ to $\frac{1}{2}$ of second basal cell covered with microtrichia, alula sometimes with small bare area in middle of base. Whole legs pale except for extreme base of femora sometimes darkened. Long hairs on front femur all pale. Yellow spots on tergites broad, separated from each other, reaching or not reaching lateral margin of tergite with their upper corners.

Length: body 10.5—11.6 mm, wing 8—9.6 mm.

Holotype ♂: Afghanistan, Gebirge Badakschan, Sarekanda, 4200 m, 29. vii. 1953 (leg. J. Klapperich). Length: body 11.6 mm, wing 9.6 mm, width: head 3.6 mm, abdomen 4.2 mm. Deposited in the Department of Entomology, National Museum, Praha.

Paratypes: all Afghanistan, Gebirge Badakschan, Sarekanda (leg. J. Klapperich). 4100 m, 28. vii. 1953 ♂ (No. 1); 3800 m, 22. vii. 1953 ♀ (No. 2); 4200 m, 31. vii. 1953 ♀ (No. 3). Deposited as holotype.

Differential diagnosis. Similar to the larger *M. luniger* but differs by its broader postocular orbits and more produced face. It differs from the alpine species *M. tirolensis* Duš. & Lás., which has the postocular orbits similarly broad, by the shape of the yellow spots on the abdomen. The female is similar to *M. tirolensis*, *M. latifasciatus* and *M. tjanshanicus* in having the frons undusted. It differs from *M. tirolensis* by the less extensive dark area on the frons, by the long hairs on the front femur being all pale, and by the shape of yellow spots on the abdomen. It differs from *M. latifasciatus* in having the yellow spots on tergites 3 and 4 usually separated, the upper margin of the spots being at least partially concave, and by the more produced face and the longer segment 3 of the antenna. It differs from *M. tjanshanicus* by the shape of the abdominal spots, which are not broadened towards the lateral margin, and by the shorter segment 3 of the antenna.

Derivatio nominis. The species is named after the distinguished dipterist the late Prof. A. A. Stackelberg (Leningrad), who helped us greatly in our present and previous works on Syrphidae by providing us with valuable advice and material.

Metasyrphus (Metasyrphus) pseudonitens sp. n.

(Figs. 6, 7, 17, 23, 24, 26, 27)

Male. Eye bare. Vertical triangle rather narrow. Anterior angle of approximation of eyes 80° — 85° . Face of profile similar to that in *M. luniger*. Frons usually with dark spots above the antennae. Facial tubercle usually dark, oral margin pale or partially dark in middle. Hairs on lower part of face pale. Postocular orbits about as broad as in *M. luniger*, broader than in *M. nitens*. Segment 3 of antenna usually somewhat shorter and lighter in colour than in *M. luniger*.

Scutellum with hairs usually black in centre and pale on margin. Microtrichia of wing membrane covering about $1/3$ — $2/3$ of second basal cell, but whole alula covered with microtrichia (a bare area on alula present in *M. luniger*). About $1/4$ to $1/3$ of front and mid femora and about $2/3$ of hind femur dark. At least some of long hairs on front femur black in apical part of femur, but otherwise long hairs yellow.

Abdomen with yellow spots on tergite 2 separated or almost separated from lateral margin of tergite in specimens examined. Yellow spots on tergites 3 and 4 connected forming a band on each tergite similarly as in *M. nitens*. These bands separated from lateral margin of abdomen or reaching it with their upper corners. Lateral margins of tergite 5 pale. Hairs on lateral margin of abdomen somewhat longer than in *M. luniger*. Dark spots on sternites vague, rather rounded similarly as in *M. luniger*, never as narrow and angular as in *M. nitens*.

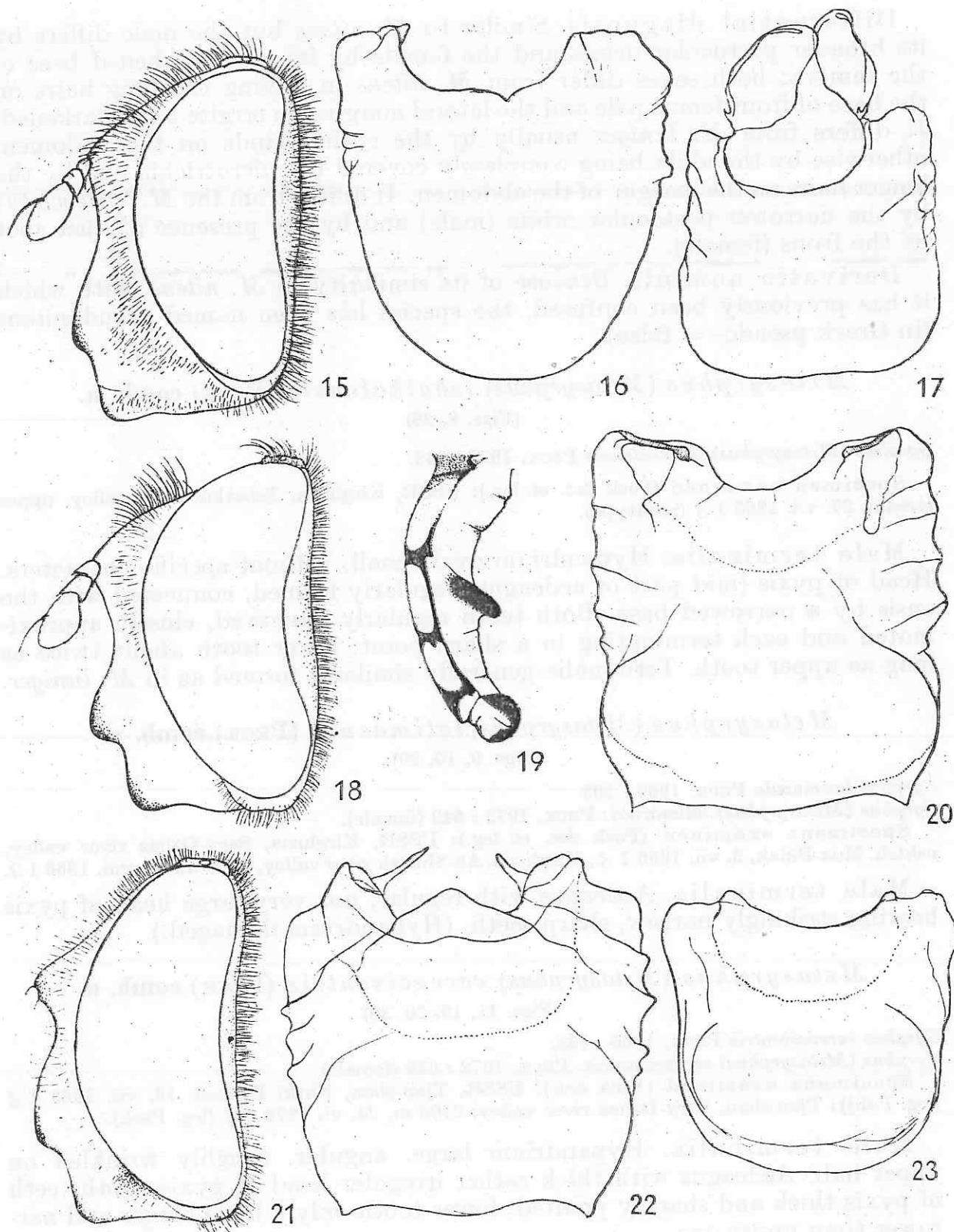
Male terminalia. Hypandrium relatively small rather angular only a little wrinkled with side corners short and blunt. Head of pyxis narrow irregularly curved with upper tooth reduced or absent, lower tooth long and slender.

Female. Dust spots on frons about as in *M. luniger*, but usually of less definite shape and not so intensively dusted. In some cases dark colour on frons reaching base of antennae. Wing membrane covered with microtrichia to less extent than in male, usually about $1/4$ — $1/3$ only of second basal cell covered with microtrichia, but whole alula haired as in male. About $1/4$ — $1/3$ of front and mid femora and about $1/2$ of hind femur intensively or moderately darkened. Black hairs on front femur sporadic only in some cases. Yellow bands on abdomen narrower than in male, usually reaching lateral margin of abdomen, in some cases very narrowed in middle (probably they could sometimes be interrupted). Dark spots on sternites small, rounded to rectangular, but broader and with angles more blunt than in *M. nitens*.

Length: body 7.7—11.2 mm, wing 6.6—9.6 mm.

Holotype ♂: Afghanistan, Nuristan, Bashgultal, 11. iv. 1953 (leg. J. Klapperich). Length: body 9 mm, wing 8 mm, width: head 2.85 mm, abdomen 3 mm. Deposited in the Department of Entomology, National Museum, Praha.

Paratypes: Afghanistan, Nuristan (leg. J. Klapperich): Bashgultal, 1100 m, 11. iv. 1953 2 ♂♂ (No. 1 and 2) and 2 ♀♀ (No. 3 and 4) and 14. iv. 1953 1 ♀ (No. 5); Kutiau, 1500 m, 5. v. 1953 1 ♂ (No. 6); Bashgultal, Achmede Dewane, 2700 m, 28. vii. 1952 1 ♀ (No. 7). Afghanistan, Jalalabad: 500 m, 30. iii. 1953 1 ♀ (leg. J. Klapperich — No. 8); 580 m, 13. iv. 1966 1 ♂ (No. 9) and 1 ♀ (No. 10) (leg. Povolný & Tenora) (prov. Nengrahar). Afghanistan, prov. Nengrahar, Laghman, 860 m (leg. Povolný & Tenora): 24. ii. 1966 2 ♀♀ (No. 11 and 12); 10. iii. 1966 1 ♀ (No. 13). Paratypes No. 1—8 deposited in the Department of Entomology, National Museum, Praha, paratypes No. 9—13 in the Department of Entomology, Moravian Museum, Brno.



Figs. 15—23: 15, 18, 21. Heads in profile: 15 — *Metasyrphus klapperichi* ♀, holotype (Sarekanda). 18, 21 — *M. stackelbergi* (Sarekanda), 18 — ♂ holotype, 21 — ♀ paratype. 16, 17, 20, 22, 23. Hypandria: 16 — *M. stackelbergi* ♂, holotype (Sarekanda). 17 — *M. pseudonitens* ♂, holotype (Bashgultal). 20 — *M. verruciventris* ♂ (Narki Djubeli). 22 — *M. tjanshanicus* ♂ (Sary-Dzhaz). 23 — *M. pseudonitens* ♂, paratype No. 1 (Bashgultal). Fig. 19 — *M. verruciventris* ♂ (Sary-Dzhaz), abdomen lateral.

Differential diagnosis. Similar to *M. nitens* but the male differs by its broader postocular orbits and the female by its more darkened base of the femora; both sexes differ from *M. nitens* in having the long hairs on the base of front femur pale and the lateral margins on tergite 5 not darkened. It differs from *M. luniger* usually by the entire bands on the abdomen, otherwise by the alula being completely covered by microtrichia and by the longer hairs on the margin of the abdomen. It differs from the *M. latifasciatus* by the narrower postocular orbits (male) and by the presence of dust spot on the frons (female).

Derivatio nominis. Because of its similarity to *M. nitens*, with which it has previously been confused, the species has been named pseudonitens (in Greek pseudo- = false).

Metasyrphus (Metasyrphus) tshatkalensis (PECK) comb. n.

(Figs. 8, 28)

Syrphus (Metasyrphus) tshatkalensis PECK, 1972 : 648.

Specimen examined (Peck det. et leg.): USSR, Kirghizia, Tshatkal river valley, upper stream, 27. vii. 1965 1 ♂ (paratype).

Male terminalia. Hypandrium oval, small, without specific characters. Head of pyxis (mid part of aedeagus) regularly formed, connected with the ensis by a narrowed base. Both teeth regularly narrowed, closely approximated and each terminating in a sharp point; lower tooth about twice as long as upper tooth. Terminalia generally similarly formed as in *M. luniger*.

Metasyrphus (Metasyrphus) latimacula (PECK) comb. n.

(Figs. 9, 10, 29)

Syrphus latimacula PECK, 1969 : 203.

Syrphus (Metasyrphus) latimacula: PECK, 1972 : 649 (female).

Specimens examined (Peck det. et leg.): USSR, Kirghizia, Sary-Dzhaz river valley, ushtsh. Muz-Bulak, 3. vii. 1966 1 ♂; Kirghizia, Ak-Shirjak river valley, 3000 m, 16. viii. 1966 1 ♀.

Male terminalia. Aedeagus with regular, not very large head of pyxis bearing strikingly narrow, sharp teeth. (Hypandrium damaged.)

Metasyrphus (Metasyrphus) verruciventrīs (PECK) comb. n.

(Figs. 11, 19, 20, 30)

Syrphus verruciventrīs PECK, 1966 : 188.

Syrphus (Metasyrphus) verruciventrīs: PECK, 1972 : 649 (female).

Specimens examined (Peck det.): USSR, Tjan-shan, Narki Djubeli, 16. vii. 1963 1 ♂ (leg. Palij); Tjan-shan, Sary-Dzhaz river valley, 2700 m, 24. vi. 1973 1 ♂ (leg. Peck).

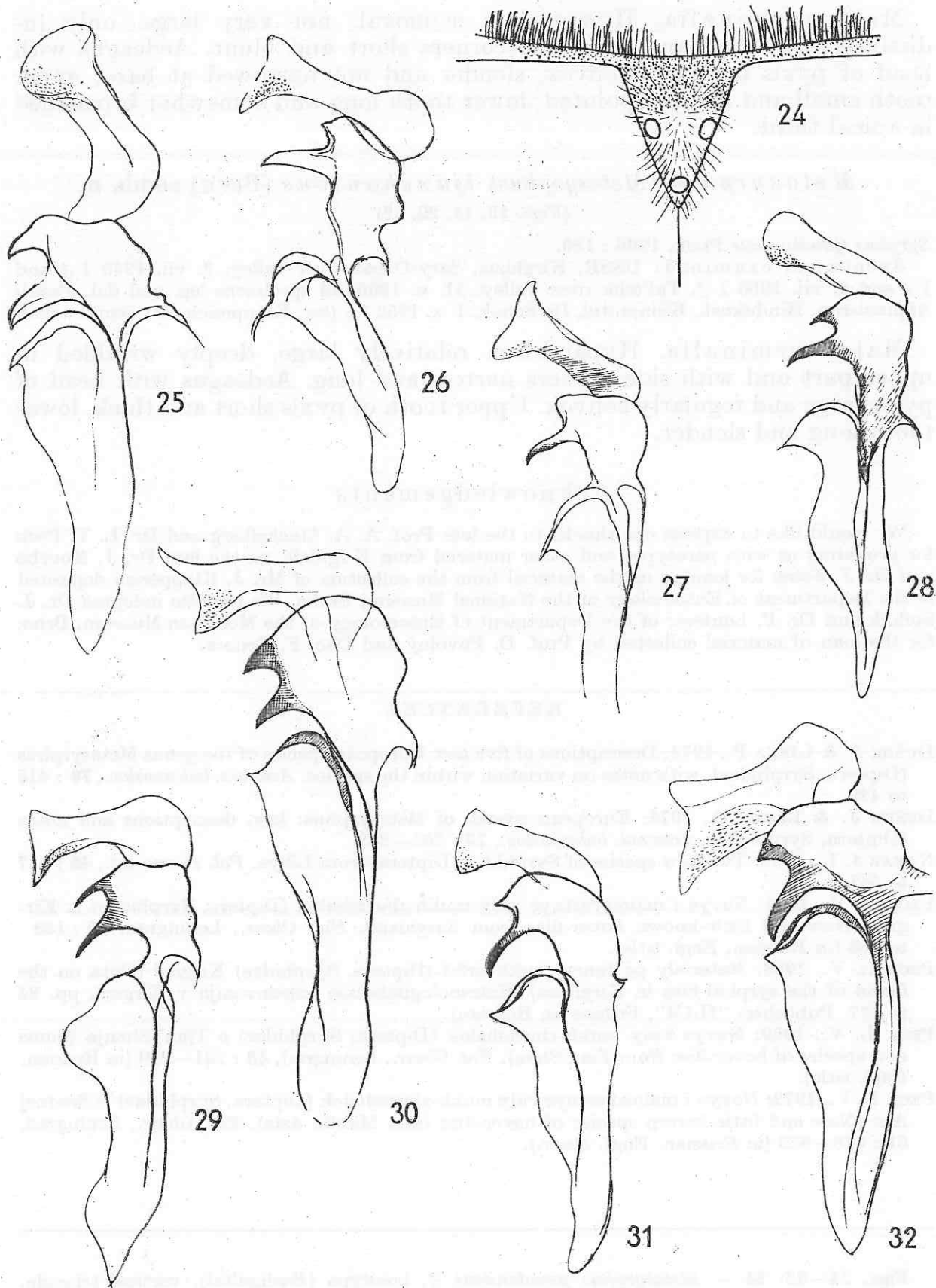
Male terminalia. Hypandrium large, angular, roughly wrinkled on upper half. Aedeagus with thick rather irregular head of pyxis. Both teeth of pyxis thick and sharply pointed; lower tooth only a little longer and narrower than upper one.

Metasyrphus (Metasyrphus) asiaticus (PECK) comb. n.

(Figs. 12, 31)

Syrphus (Metasyrphus) asiaticus PECK, 1972 : 648.

Specimen examined (Peck det. et leg.): USSR, Kirghizia, Tshatkal river valley, mid stream, 31. vii. 1965 1 ♂ (paratype).



Male terminalia. Hypandrium semioval, not very large, only indistinctly wrinkled and with side corners short and blunt. Aedeagus with head of pyxis regularly convex, slender and not narrowed at base; upper tooth small and sharply pointed, lower tooth long and somewhat broadened in apical third.

Metasyrphus (Metasyrphus) tjanshanicus (PECK) comb. n.

(Figs. 13, 14, 22, 32)

Syrphus tjanshanicus PECK, 1966 : 189.

Specimens examined: USSR, Kirghizia, Sary-Dzhaz river valley, 3. vii. 1966 1 ♂ and 1 ♀ and 4. vii. 1966 1 ♂, Tul'tsha river valley, 31. v. 1966 (all specimens leg. and det. Peck). Afghanistan, Hindukush, Khinjantal, Do Schak, 1. x. 1952 1 ♀ (leg. Klapperich, det Bankowska).

Male terminalia. Hypandrium relatively large, deeply wrinkled in upper part and with side corners narrow and long. Aedeagus with head of pyxis large and regularly convex. Upper tooth of pyxis short and thick, lower tooth long and slender.

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Figs. 24—32: 24 — *Metasyrphus pseudonitens* ♂, holotype (Bashgultal), vertical triangle. 25—32. Aedeagi lateral: 25 — *M. stackelbergi* ♂, holotype (Sarekanda). 26 — *M. pseudonitens* ♂, paratype No. 1 (Bashgultal). 27 — *M. pseudonitens* ♂, holotype (Bashgultal). 28 — *M. tshatkalis* ♂, paratype (Tshatkal). 29 — *M. latimacula* ♂ (Muz-Bulak). 30 — *M. verruciventrif* ♂ (Narki Djubeli). 31 — *M. asiaticus* ♂, paratype (Tshatkal). 32 — *M. tjanshanicus* ♂ (Sary-Dzhaz).

Виды рода *Metasyrphus* из Афганистана и Киргизии:
определятельная таблица и описания новых видов (Diptera, Syrphidae)

Таксономия, 3 sp. n.

Резюме. Приведена таблица для определения самцов 14 известных видов рода *Metasyrphus* из Афганистана и Киргизии и таблица для самок 11 видов. Даны описания трех новых видов из Афганистана: *M. klapperichi*, *M. stackelbergi* и *M. pseudonitens*. У видов *M. tshatkalensis*, *M. latimacula*, *M. verruciventris*, *M. asiaticus* и *M. tjanshanicus* даны описания, изображения гениталий и списки исследованных экземпляров.

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