

A CONCISE SURVEY OF THE PALEARCTIC SPECIES
OF THE GENUS *SPILOMYIA* M. G. (DIPTERA, SYRPHIDAE)

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Members of the genus *Spilomyia* are large dipterous insects bearing a superficial resemblance to wasps of the genus *Vespa*. The genus is readily distinguished from related genera by several diagnostic criteria (given below in the diagnosis of the genus) and its members comprise a homogeneous group (at least within the limits of the palearctic portion of its range).

The genus *Spilomyia* includes within its territory of geographical distribution the greater part of the northern hemisphere except for the extreme north (its distribution stops at approximately the 62nd parallel) and also, South America (from which a single species is known) within the southern hemisphere. In both the palearctic and nearctic realms the genus is well represented as regards numbers of species - 12 species are known from palearctic countries, and 13 from nearctic countries.

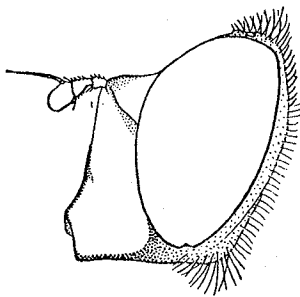


Fig. 1. *Spilomyia diophthalma* L.,
head of male in profile.

Two centers, about which the genus seems to be concentrated, occur in the palearctic part of its range; these are - the Mediterranean lands, in the wide sense of the term (except for Central Asia), and the Far East (Ussuri Land, China, and Japan), and in the nearctic realm there is a single center of distribution, namely Mexico. All these centers lie within the limits of the subtropical zone of deciduous forest. The more widely distributed members of the genus (*S. diophthalma* L., *S. maxima* Sack, and *S. saltuum* Mg.) all show a radiating type of distribution based on the aforementioned centers: the first two species, particularly *S. maxima* in the Far East, and *S. saltuum* in the Mediterranean territory.

The imago of *Spilomyia* spp. show a preference for flight in the second half of the year, and at the beginning of Autumn may be found on late-flowering umbelliferous plants. The larvae (which are not described in detail) inhabit damp, rotten timber in hollow trees.

The present paper consists of a concise survey of the palearctic species of the genus *Spilomyia*. In it, two new species are described. Two species among those given in the identification key have been provisionally included on the basis of their original descriptions, without actual material having been available to the author for study and comparison with the original descriptions; these species (*S. chinensis* Hull and *S. annulata* Sack) require further investigation.

The type specimens of the new species described in this paper, together with all the other material on which the survey is based, are to be found in the collection of the Zoological Institute, AN SSSR in Leningrad.

DIAGNOSIS OF THE GENUS

Large flies, having their bodies covered with short hairs; the general appearance is that of wasps of the genus *Vespa*. Head hemispherical, wider than thorax; the face from below the antennae is devoid of any depression and is almost straight, except for a slight projection just above the mouthparts (Fig. 1). Antennae erect, rather short;

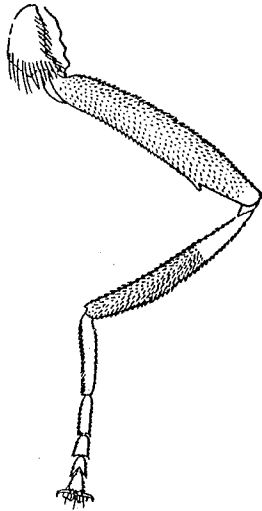


Fig. 2. Spilomyia diophthalma L., hind limb.

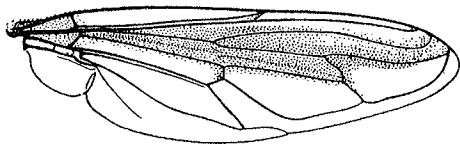


Fig. 3. Wings of Spilomyia diophthalma L.

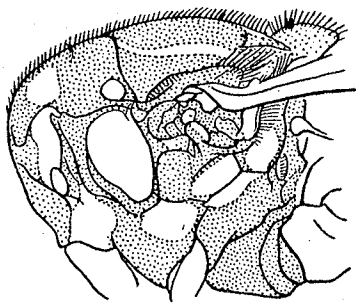


Fig. 4. Lateral wall of thorax. Spilomyia suzukii Mats.

third segment of antennae bent; arista naked, arising from near the base of the third antennal segment. Eyes naked; in the male they are in contact to some extent, thorax massive; prescutum and scutum with yellow spots, scutum usually bearing yellow patches on humeral calluses and also on the anterior edge of the scutum nearer to the midline than the humeral callus and on the notopleurae; there is a yellow figure developed on the scutum in the majority of species, and this takes the form of elongate strips extending from the transverse suture to the adalary tubercles and oblique lines at the corners of the scutum, just in front of the scutellum; the yellow spots on the lateral walls of the thorax are less constant. Limbs stout; posterior femur somewhat thickened and curved, bearing a toothlet ventrally just above its distal extremity (Fig. 2); posterior tibia slightly curved, wings relatively narrow (Fig. 3); R_1 open; veins r_{4+5} feebly curved; anal vein runs on the outside of the anal cell, parallel with the posterior margin of the wing (Fig. 3).

IDENTIFICATION KEY FOR SPECIES

1 (12). Pleurotergite yellow (Fig. 4).

2 (3). Scutellum lemon-yellow right to the base. Head yellow; face with narrow, dark, vertical stripes, and having at the sides moderately long, delicate, light colored hairs; frons yellow with small black crescentic markings and narrow stripes of the same color, extending to the anterior ocelli; the frons is covered with short, light colored, erect hairs; vertex triangular, black at the front and brownish yellow posteriorly (behind the ocelli); nape black, with a grey ridge along the edge of the eyes and with short, colored hairs. Antennae light reddish yellow in color, third joint bent; arista yellow. Thorax black; mesonotum with lemon-yellow humeral calluses and with a rather large, irregularly triangular patch on its anterior margin (nearer the middle than the humeral calluses) and with a small spot on the notopleura; mesonotum wide, bowed, with a slightly tapering strip extending from the adalary tubercles to the transverse suture which separates the prescutum and scutum, and with small, rather wide, oblique bands in front of the scutellum which is lemon yellow all over; mesonotum and scutellum covered in short decumbent hairs, mostly black but with some short yellow hairs on the adalary tubercles, on the hinder part of the scutum in front of the scutellum and laterally on the scutellum; lateral walls of thorax black with

5 rather large lemon-yellow spots — one on the side of the humeral callus, one in front of the mesopleura (above the first coxa), one in the posterior portion of the mesopleura (this spot occupies the whole area of the posterior half of the mesopleura), one in the upper part of the sternopleura and one on the pleurotergite. Limbs light yellow, except for the first 3 segments of the anterior tarsus, which are black; on the limbs there are short, colored, decumbent hairs which are rather longer on the posterior surface of the middle femur than elsewhere, the posterior femur is covered with short black hairs, toothlet on the posterior femur acutely triangular in shape. Anterior half of wings (up to the vena spuria) brownish yellow; squamae white with white setules, halteres light yellow. Abdomen for the most part yellow; first tergite with an obtusely triangular spot near to its junction with the second tergite, and this spot merges into a narrow black strip expanding somewhat to form a band in the posterior

half of the 2nd tergite; the band is narrow only in the midline and enlarges slightly as it extends into the 3rd and 4th tergites; the upper surface of the abdomen with very short, black, erect hairs; abdomen black ventrally with a rather short black band on the posterior margin of the sternite. Length of body 12.5 mm. Locality - Central Asiatic Republic (Gissarskii Mts.) S. gussakovskii Shtakel'berg, n. sp.

3 (2). Scutellum black anteriorly, with a more or less wide yellow hind margin.

4 (7). Pteropleura mainly yellow and hypopleura broadly yellow above.

5 (6). Squamae grey with darker margins and golden setules. Prescutum with delicate short, erect hairs. Lateral margin of the abdomen mainly black as a rule. In the middle of the frons in the female is a dark stripe which tapers posteriorly and does not reach the level of the ocelli. Coxae brown or black. Tarsi mainly reddish yellow. Face yellow with a narrow vertical black stripe. Antennae brownish yellow. Mesonotum black and possessing the yellow pattern characteristic of the genus *Spilomyia*; scutellum black, with moderately wide, dark yellow margin; lateral wall of thorax with 7 yellow spots - one at the side of the humeral callus, one anteriorly, and one posteriorly on the mesopleura; one each on the upper part of the sternopleura and hypopleura; one on the pteropleura; and one on the pleurotergite (Fig. 4). Limbs brownish yellow with lighter tibiae; femora usually black; basal segment of anterior tarsus blackish. Wings transparent, but somewhat darker in the region of the eye-spot (up to the vena spuria). Abdomen yellow, with narrow transverse bands of dark yellow, which occur near the middle and on the posterior margins of the 2nd, 3rd, and 4th tergites; the median bands of tergites 2-4 are clearly interrupted in the middle; the band along the posterior margin of the 4th tergite is wider than the rest, and has a diffuse outline. Length: 17-19 mm. Locality: USSR Ussuri Land, Kuril Islands (Kunashir I), Japan S. suzuki (Mats.) Shiraki

Matsumura, 1915. Thous. Ins. Japan, Add. 11:229. Taf. XVII Fig. 9.

Shiraki, 1930: 111-113

Sack, 1932:431.

6 (5). Squamae white with white setules. Prescutum with very short decumbent, setiform hairs in the female. Sides of the abdomen not completely yellow. The dark stripe in the middle of the frons extends to the ocelli. Coxae yellow. Face yellow with a narrow elongate, black stripe. Antennae yellowish brown. Mesonotum with the usual yellow pattern of the genus; scutellum black with a yellow posterior margin; sides of thorax as in the preceding species. Limbs yellow; each femur has a dark stripe on its under surface as a rule; the ends of the anterior and posterior tibiae are brownish black; the anterior and posterior tarsi are, on the whole, elongate, the middle tarsus is black except for its basal part. Wings transparent with a slight darkening in the region of the eye-spots; halteres light yellow. Abdomen black with uninterrupted, moderately wide, yellow bands, situated in front of the middle and at the posterior margin of tergites 2, 3, and 4; 5th tergite in female with a narrow yellow posterior border. Length: 14 mm. Locality: South Ussuri Land . . . S. panfilovi Zimina

Zimina, 1952. Entomological Review XXII:329-331.

7 (4). Pteropleura and hypopleura entirely black.

8 (9). Mesonotum and scutellum with moderately long, fine, erect hairs. Anterior tarsi black to the ends. Face yellow with a narrow vertical black stripe. Antennae brownish yellow. Mesonotum with the yellow pattern usual in the genus *Spilomyia*; yellow spots on the humeral callus; yellow spots on the notopleura feebly developed or absent; scutellum black with a yellow posterior margin; lateral walls of thorax with 6 yellow spots - on the side of the humeral callus, on the anterior and posterior parts of the mesopleura, on the upper part of the sternopleura, on the posteroventral part of the pteropleura, and on the pleurotergite. Limbs yellow; coxae brown; femora with a dark stripe ventrally, apical half of the anterior tibiae brown; anterior tarsi black to the tip. Wings transparent, yellowish anteriorly (i.e. to the vena spuria), in the region of the eye-spot somewhat darkened; alary cell yellowish white; halteres yellow. Abdomen yellow with moderately wide, usually uninterrupted, transverse yellow bands in the basal half and on the posterior margin of tergites 2, 3, and 4; in some cases, the anterior stripes of each of these tergites is discontinuous; hypopygidium in male yellow; 5th tergite of female mainly yellow but with a black anterior margin. Length: 13-15 mm. Locality: USSR, Ukraine (Khar'kov region), Caucasia and Transcaucasia, southern Europe (Fig. 5) S. manicata Rd.

Rondani, 1866, Atti Soc. Ital. Sci. Nat., VIII:132.

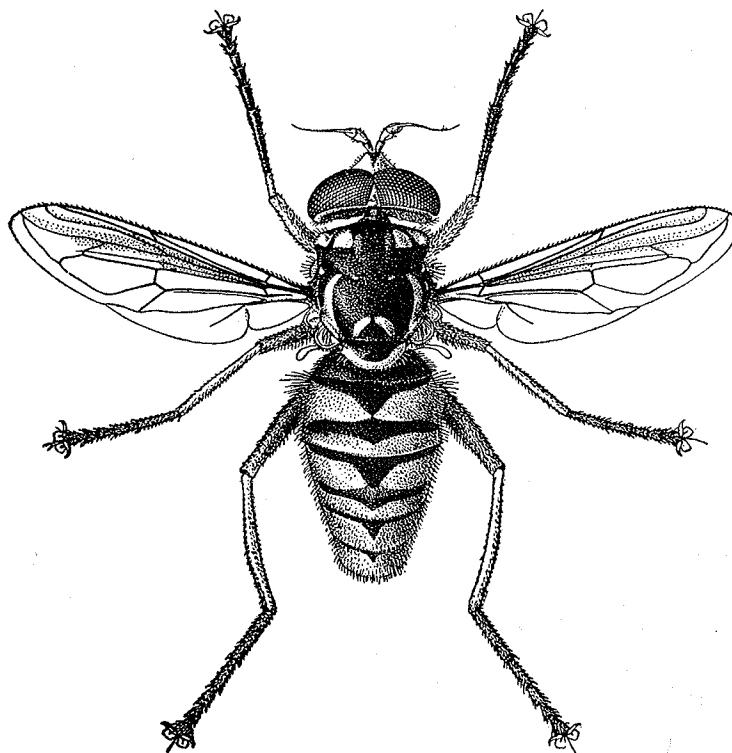


Fig. 5. Spilomyia manicata.

Sack, 1910:16; Sack, 1932:429. — ? *integra* Kuntze, Deutsche Entom. Zeitschr:549; Sack, 1932:429 (syn. nov.).

9 (8). Mesonotum and scutellum with very short, decumbent, black setiform hairs. Anterior tarsi black, as a rule, with reddish black apical segments.

10 (11). Abdomen with narrow yellow bands; abdomen mainly black (Fig. 6). Face yellow, with black stripe. Antennae light reddish yellow. Mesonotum and scutellum as in the previous species, but the yellow spots on the notopleura are always clearly defined; lateral walls of thorax with 6 yellow spots, distributed as in the previous species; yellow spot on the pleurotergite clearly exceeding the size of that on the pteropleuron, which lies in front of it. Limbs yellow; coxae black; the distal half of anterior tibiae light brown; segments 1-3 of anterior tarsi black or brown. Wings transparent, the anterior margin (as far as r_{4+5}) brownish; squamae and halteres yellowish white. Abdomen black with narrow, yellow, transverse bands present in the anterior half and on the posterior margins of the 2nd, 3rd, and 4th tergites; the anterior bands on these tergites are discontinuous; hypopygium of male black in color; 5th tergite with the anterior half black and the posterior half yellow in the female. Length: 12-13 mm. Locality: European Russia (in the region of Kursk, Khar'kov and Saratov, Transcaucasia), central and southern Europe S. saltuum F.

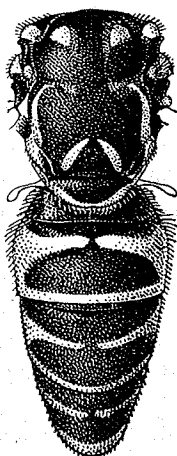


Fig. 6. Spilomyia saltuum F., thorax and abdomen of male.

Fabricius, 1794, Entom. System., IV:287 (Syrphus).
 Sack, 1910:15.
 Lundbeck, 1916:550-552.
 Sack, 1932:430-431.



Fig. 7. *Spilomyia digitata* Rd., thorax and abdomen of male.



Fig. 8. *Spilomyia sulphurea* Sack, thorax and abdomen of male.

11 (10). Yellow bands on abdomen very wide; the abdomen is predominantly lemon-yellow in color (Fig. 7). Face yellow with narrow vertical, black stripes. Antennae brownish yellow. Scutum and scutellum colored as in *S. manicata* Rd., but the integumentary hairs are very short and decumbent; lateral walls of thorax having 5 yellow spots, as a rule, or rarely 6; these are disposed as in *S. manicata*, but the yellow patches on the pteropleurae are usually absent. Limbs yellow; coxae black; distal half of anterior tibia and tarsus, except for the 5th segment, black, the anterior tibia may, on rare occasions, be black right to the end. Wings transparent slightly brownish along the anterior margin (to r_{4+5}); squamae and halteres yellowish white. Abdomen predominantly yellow; first tergite black except for a narrow stripe of yellow which does not extend to the lateral parts of the tergite; on tergites 2-4 narrow stripes of black are to be found on the anterior margins and wider stripes medially, these two stripes being connected by a small band in the midline (Fig. 7); hypopygium of male and 5th abdominal tergite of female yellow. Length: 12-15 mm. Locality: USSR, Transcaucasia (Gelendzhik), Kopet-Dag. Southern Europe and North Africa *S. digitata* Rd.

Rondani, 1865, Atti Soc. Ital. Sci. Nat., VIII:152.
Sack, 1910:17; Sack, 1932:430.

12 (1). Pleurotergite black.

13 (14). Distal half of anterior tibia and anterior tarsus deep black. Squamae white with whitish setules. Scutellum with a wide, lemon-yellow posterior margin. Abdominal bands lemon-yellow (Fig. 8). Face yellow with vertical black stripes. Antennae brownish yellow. Prescutum and scutum with the usual yellow pattern of the genus *Spilomyia*, but the yellow triangle in front of the scutellum is broken up into two almost oval patches, which do not touch in the midline; scutellum with a black anterior region and a wide, lemon yellow posterior margin; mesonotum covered with rather short, delicate, erect hairs; lateral walls of thorax with 4 lemon-yellow spots — one situated laterally on the humeral callus, one in the middle, and one posteriorly on the mesopleura and one on the upper part of the sternopleura; the whole of the posterior part of the lateral wall of the thorax is black. Limbs yellow; coxae black; the anterior tibiae usually black except for their proximal parts, tarsi black. Wings transparent, their anterior margins yellowish brown; halteres yellowish. Abdomen (Fig. 8) lemon-

yellow, first tergite black except for a narrow band which does not extend to the sides of the tergite, narrow bands of black are present on the anterior margins and near the middle of tergites 2, 3, and 4; each band has a posteriorly directed, triangular outgrowth of black; yellow band of second tergite is broken in the middle; the subsequent yellow bands are not interrupted completely by black; hypopygium of male and fifth abdominal tergite of female yellow. Length: 14-16 mm. Locality: Mountains of Central Asia (Gissarskii range, western slopes of Pamir) *S. sulphurea* Sack

Sack, 1910:19-20; Sack, 1932:431.

14 (13). Anterior tibiae and tarsi brownish or reddish yellow or brown. Scutellum with brownish posterior margin. Bands on abdomen brownish or reddish yellow.

15 (16). Scutum without yellow pattern. Yellow spots on the anterior edge of the prescutum, situated nearer the middle than the humeral callus, with lateral and clearly defined projections directed posteriorly (towards the yellow patches on the notopleurae, Fig. 10). Head yellow; face without dark colored, vertical stripes; frons of male with small brown patch at base of antenna; frons of female with narrow brownish stripes

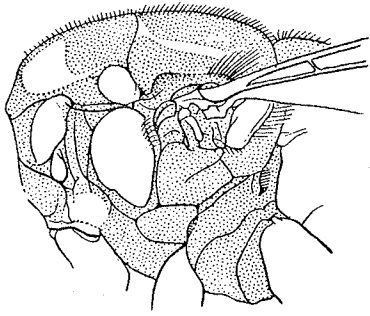


Fig. 9. *Spilomyia maxima* Sack, lateral wall of thorax.

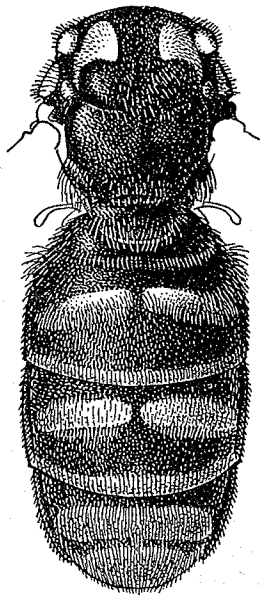


Fig. 10. *Spilomyia permagna* Stack, sp. n., thorax and abdomen, male.

with diffuse outlines in the anterior half; laterally the face is covered with short, light colored erect hairs; vertex triangular, and bearing longer, light colored, erect hairs; vertex with a triangular patch of yellow posteriorly, otherwise black like the nape with grey ridge; short, erect, light colored hairs on the nape, extending along the edges of the eyes. Antennae yellowish or brownish red on the upper part of the 1st segment near to the vertex; arista somewhat longer than the antenna, light colored. Thorax black; mesonotum (Fig. 10) with dark yellow humeral calluses, with rather large markings on its anterior edge (median to the humeral calluses), each with backwardly directed (towards the notopleurae) extensions and with small spots on the notopleurae; the median part of the transverse suture between prescutum and scutum with brown or grey ridges, the scutum lacks the usual yellow pattern; adalary tubercles often brownish, scutellum black, with a narrow dark brown posterior margin, scutum scutellum with moderately long, delicate, erect hairs, which on the anterior part of the scutum and on the scutellum are yellowish brown, and on the scutum between the bases of the wings are black; lateral walls of thorax black with 4 yellow spots — one on the side of the humeral callus, one anteriorly on the mesopleura (above the first coxa), one posteriorly on the mesopleura (this spot occupies the greater part of the sclerite), and the last spot on the upper part of the sternopleura. Limbs yellowish brown, femur with somewhat darker colored (black) vertical stripes; distal portion of anterior tibia and first 3 joints of front tarsus often darker in color; limbs with short, yellow, decumbent hairs; hairs on the rear surface of the middle femur somewhat longer, erect; toothlet on hind femur acute-angled. Wings transparent, and brownish anteriorly (between r_1 , vena spuria, and rm), squamae dark grey with darker edge and golden setules; halteres light yellow. Abdomen (Fig. 10) black; 2nd tergite with a narrow band, interrupted in the middle, of brownish yellow color and arciform in shape; this is situated in the anterior half of the tergite and there is, in addition, a narrow, brownish yellow band along the posterior margin; 3rd tergite with a relatively wide brownish yellow band which is also broken in the middle, and with the hind margin of the same color 4th tergite brownish or reddish yellow with a black anterior margin and a brown or black narrow band with diffuse pigmentation, situated close to the middle of the tergite; hypopygium of male and 5th tergite of female brownish yellow; abdomen black below with moderately

wide yellow, posterior margins to the sternites, upper abdominal surface covered with short, decumbent hairs, colored black on the black parts of the abdomen, and brownish yellow, shot golden, on the parts of the abdomen and hypopygium colored brownish yellow; lateral walls of abdomen with black stripes. Length 20-23 mm. Locality: USSR. Sakhalin Island, Kuril Islands; Japan. (*S. suzukii* Mats.: Esaki, and others, 1932, Fig.)

..... *S. permagna* Stackelberg, sp. n.

Sakhalin Island, Aug. 16, 1933, 1 male (Saghalien Central Expt. Sta.); Aug. 22, 1940, 1 male (Saghalien Central Expt. Sta.); Kunashir Island, Kuril Island, Alekhino, Aug. 23, 28, 1953, Aug. 12, 13, 14, 1955, 2 males, 9 females (Biolovich); Lake Lagunnoe Aug. 16, 17, 1955, 6 males, 3 females (Biolovich); type specimens of male (holotype) and of female (allotype) — Lagunnoe Aug. 16, 1955.

16 (15). Scutum with distinct yellow pattern as in other members of the genus *Spilomyia* — in the form of slightly curved longitudinal stripes, extending from the humeral calluses to the transverse suture of the scutum, together with little oblique markings from the angles of the scutum adjacent to the scutellum inclined towards its midline. Yellow mark on anterior margin of prescutum, situated nearer midline than the humeral calluses, with a more or less straight posterior edge of only slightly curved, without any extension towards the notopleura (Fig. 11).

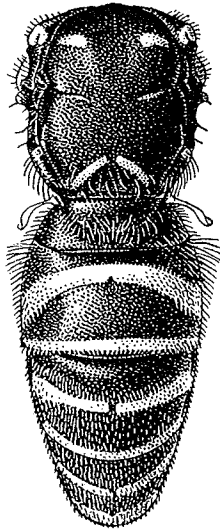


Fig. 11. *Spilomyia diopthalma* L.,
thorax and abdomen, male.

17 (18). Proximal half of anterior and middle femora and basal two-thirds of posterior femur black. Face yellow, without any dark longitudinal stripes. Antennae short, brownish red. Mesonotum black, with the usual brownish yellow markings characteristic of the genus *Spilomyia*; the markings on the anterior edge of the prescutum, median to the humeral calluses, almost rectangular in outline, with slightly curved hinder edge; scutellum dark reddish brown with a light yellow posterior margin and bearing moderately long, light colored, erect hairs; lateral walls of thorax with a large light colored spot on the hinder part of the mesopleura and a small dark yellow spot on the upper part of the sternopleura; the whole of the hinder part of the lateral thorax wall black. Limbs light brownish or reddish orange; proximal half of the anterior and middle femora and proximal two thirds of hind femur black; proximal part (one third to one half) of tibiae yellow; posterior tibia with small, linear dark markings in the middle. Wings transparent, with darker anterior edge, reddish brown or yellowish; squamae light brown with somewhat darker setules; halteres orange. Abdomen yellow, second tergite with its basal half bearing brownish yellow bands, the posterior edge of the second tergite with a faint, barely noticeable band; third tergite with its basal half possessing a brownish yellow band, which does not extend as far as the lateral edges of the tergite, and of which the width in the middle is approximately twice that at the edges. Fourth tergite with a yellowish brown band across its anterior half; this band touches the anterior margin of the tergite in the midline, but not laterally; the posterior part of the 4th tergite is reddish yellow, and in the midline this color extends over half the length of the tergite; 5th tergite of female reddish brown. Length 16 mm. Locality: southwest China (Hunan: Mekong river basin) (Hull).

..... *S. chinensis* Hull.

Hull, 1950, Ann. Mag. Nat. Hist., (13), 111, 31:603-606.

18 (17). Femora of all limbs reddish or brownish yellow, rarely with a dark, longitudinal stripe on the ventral surface.

19 (20). Erected sclerite of subalar pit yellowish red or red. Face usually without a dark stripe. Abdomen with broad, reddish yellow, transverse bands; 4th tergite reddish yellow, with a diffuse dark colored pattern. Size: 20-23 mm. Antennae brownish or reddish yellow. Mesonotum black, with the usual pattern common to most members of the genus *Spilomyia*, on the prescutum this pattern is in bright yellow; on the scutum it is brownish yellow; scutellum blackish brown with a yellowish brown hinder edge; lateral walls of thorax (Fig. 9) black with 3 pale yellow spots - one laterally on the humeral callus, one anteriorly on the mesopleura (under the anterior coxa) and another posteriorly on the mesopleura; in some examples (ab. *xanthosticta* Stack., nov.), in addition to the aforementioned spots there are 3 others present - on the upper part of the sternopleura and on the lower part of the pteropleura. Limbs brownish or reddish yellow; the distal part of the anterior tibia and the basal segment of the front tarsus often blackish. Wings transparent, of brownish color between the veins r_1 , m, and rm ; squamae dark grey or brownish, with golden setules. Abdomen black; 2nd and 3rd tergites with two rather wide, reddish yellow bands anteriorly, each of which is sharply interrupted, and a reddish yellow posterior margin; 4th tergite either completely reddish yellow or with a narrow, black, transverse band along the front edge and a brown band situated near the middle of the tergite; hypopygium of male and 5th abdominal tergite of female reddish yellow. Locality: European USSR (Leningrad and Vladimir regions), Altai and Baikal regions, Ussuri Land, Sakhalin?. Japan. In southern Ussuri Land it is restricted to western localities and is very rare.

..... *S. maxima* Sack.

Sack, 1910: 18-19; Sack, 1932:430.

20 (19). Erected sclerite of subalary pit blackish brown. Face, usually, with a dark colored (black) vertical stripe. Abdomen, in particular the 4th tergite, with narrow or relatively wide, clearly defined, yellow, transverse bands. Smaller in size: 15-17 mm.

21 (22). Third and 4th tergites of abdomen each with a single narrow yellow band on the hind margin. Face and frons of female yellow with wide, black, vertical stripes. Mesonotum black with the usual pattern of the genus *Spilomyia* present; this pattern is, however, somewhat weakly developed (its stripes are often sharply formed); the small yellow spot under the base of the wing is not present; the setae of the mesonotum are brown along its posterior margin and in the posterior corners on the scutellum; however, the setae are grey in color and relatively long. Limbs yellow, ventral surface of femora brown. Abdomen black; 2nd tergite with a narrow yellow band, anteriorly and another band along the hind margin of the tergite; tergites 3 and 4 with narrow yellow bands along the hind margin; 5th tergite all yellow; yellow bands of the posterior tergites not wider than bands of anterior tergites, in which the bands do not widen in a lateral direction. Length: 17 mm. Locality: USSR, Pamirs (according to Sack) *S. annulata* Sack.

Sack, 1910:20-21; Sack, 1932:428.

22 (21). Third and 4th tergites each with two, relatively wide bands, one in the middle, the other along the posterior edge of the tergite; in certain cases, the middle strip is only developed in the lateral parts of the tergite.* Face usually yellow with dark colored (black), vertical stripes. Antennae yellowish, or reddish, brown. Mesonotum with the yellow pattern common to most species of the genus *Spilomyia*; scutellum blackish brown, with its posterior margin reddish; hairs covering the mesonotum and scutellum rather long, delicate, erect; those on prescutum, on the posterior margin of the scutum and on the scutellum are colored, those lying between the bases of the wings are black; lateral walls of thorax usually bearing 4 spots — one on the side of the humeral callus, one anteriorly, the other posteriorly on the mesopleura, and one dorsally on the sternopleura. Limbs reddish yellow; coxae brown. Wings transparent, with the anterior margin (between veins r_1 , m, and rm) brownish; squamae grey with golden setules. Abdomen (Fig. 11) black with moderately wide, dark yellow, transverse bands, situated on the anterior half, and along the posterior edges of tergites 2-4; the bands widen appreciably at the lateral edges of the tergites; hypopygium of male black; 5th abdominal tergite of female yellow with a black anterior margin. Length 15-17 mm. Locality: European USSR from Estonia and the Leningrad region to Southern Ukraine and Transcaucasia; northern Kazakhstan, Siberia (Altai, Baikal, Yakutia). Major part of western Europe. *S. diophthalma* L.

Linné, 1758, Syst. Nat., X:593 (Musca).
Sack, 1910:21-22; Sack, 1932:428-429.

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* Aberrant examples of female *S. diophthalma* L. occur in which the middle transverse yellow bands of tergites 3 and 4 are completely absent; they differ from the type of *S. annulata* Sack, which I have not seen, in the yellow color of the 5th abdominal tergite, which in *S. annulata* is black, and in the absence of dark colored (brown) longitudinal stripes on the ventral surfaces of the femora.

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КРАТКИЙ ОБЗОР ПАЛЕАРКТИЧЕСКИХ ВИДОВ РОДА
SPILOMYIA MG. (DIPTERA, SYRPHIDAE)[A. A. STACKELBERG. THE PALEARCTIC SPECIES OF THE GENUS SPILOMYIA MG.
(DIPTERA, SYRPHIDAE)]

Виды рода *Spilomyia* Mg. представляют собою крупных двукрылых, напоминающих по своему облику ос *Vespa*. Род этот является достаточно хорошо отграниченным от соседних целым рядом признаков (см. ниже диагноз рода) и вместе с тем достаточно гомогенным (по крайней мере поскольку дело касается палеарктических его представителей).

Род *Spilomyia* охватывает в своем распространении большую часть северного полушария за исключением Крайнего Севера (в Палеарктике севернее, примерно, 62-й параллели он отсутствует), а из территорий южного полушария — Южную Америку (Аргентина), откуда известен 1 вид. В Палеарктике и Неарктике род представлен достаточно богато (12 видов в Палеарктике и 13 видов в Неарктике).

В пределах Палеарктики выявляются два центра процветания рода — Средиземноморье в широком смысле (со включением Средней Азии) и Дальний Восток (южное Приморье, Китай, Япония), в пределах же Неарктики — один (Мексика); все эти центры лежат в пределах зоны широколиственных лесов субтропического типа; более широко распространенные палеарктические виды этого рода (*S. diophthalma* L., *S. maxima* Sack, *S. saltuum* Mg.) имеют все же определенное тяготение к вышеуказанным центрам: к восточному (первые два вида, а в особенности *S. maxima* Sack) и к средиземноморскому (*S. saltuum* Mg.).

Виды рода *Spilomyia* в фазе имаго попадают по преимуществу во второй половине лета и в начале осени на поздноцветущих зонтичных. Личинки (детально не описаны) обитают во влажной трухе в дуплах лиственных деревьев.

В настоящей работе дается краткий обзор палеарктических видов рода *Spilomyia* Mg. В работе описываются два новых вида. Два вида из числа помещенных в определительную таблицу (*S. chinensis* Hull и *S. annulata* Sack) включены в таблицу провизорно на основании их оригинальных описаний, без изучения соответствующего коллекционного материала, который был для автора недоступен; эти виды требуют дополнительного исследования.

Типы описываемых в настоящей работе новых видов, а также весь приводимый в работе материал находятся в коллекции Зоологического института Академии наук СССР в Ленинграде.

ДИАГНОЗ РОДА

Крупные мухи с коротковолосистым телом, несколько напоминающие ос *Vespa*. Голова полукруглая, шире груди; лицо под усиками без впадины, почти прямое, у края рта слегка приподнятое (рис. 1). Усики торчащие, относительно короткие;

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SUMMARY

KEY TO THE PALEARCTIC SPECIES OF THE GENUS SPILOMYIA MG.

- 1 (12). Pleurotergite yellow.
- 2 (3). Scutellum entirely yellow. — Turkestan
. *S. gussakovskii* Stack., sp. n.
- 3 (2). Scutellum black with yellow hind margin.
- 4 (7). Pteropleura mainly and hypopleura above broadly yellow.
- 5 (6). Squamae grey with golden ciliae. Praescutum with short erect hairs. Lateral margin of the abdomen mainly black. Dark median strip on the ♀ frons short, narrowed above, not reaching the ocelli. Coxae brown or blackish. Tarsi mainly reddish yellow. — Ussuri Land, Kuril Isls, Japan *S. suzukii* (Mats.) Shiraki.
- 6 (5). Squamae white with whitish ciliae. Praescutum with very short decumbent hairs. Lateral margin of the abdomen yellow. Dark median strip on the ♀ frons long, reaching the ocelli. Coxae yellow. Tarsi mainly black. — Ussuri Land *S. panfilovi* Zimina.
- 7 (4). Pteropleura and hypopleura entirely black.
- 8 (9). Mesonotum and scutellum with relatively long fine erect hairs. Front tarsi entirely black. — S. Europe, Caucasus
. *S. manicata* Rd. (? *S. integra* Kuntze, syn. nov.)
- 9 (8). Mesonotum and scutellum with very short decumbent black hairs. Front tarsi with reddish-yellow apical joints.
- 10 (11). Abdomen with very narrow yellow bands; abdomen mainly black. — Central and South Europe, Caucasus *S. saltuum* F.
- 11 (10). Abdomen with very broad yellow bands; abdomen mainly pale yellow. — South Europe, Caucasus, Kopet-Dagh Mountains
. *S. digitata* Rd.
- 12 (1). Pleurotergite black.
- 13 (14). Front tibiae and front tarsi black. Squamae white with whitish ciliae. Scutellum with broad pale yellow hind margin. Abdominal bands pale yellow. — Turkestan (Mountains)
. *S. sulphurea* Sack.
- 14 (13). Front tibiae and front tarsi brownish or reddish yellow or brown. Squamae grey or brownish. Scutellum with brownish hind margin. Abdominal bands brownish- or reddish-yellow.
- 15 (16). Scutum (not praescutum!) without yellow markings. Yellow spot on the anterior margin of the praescutum large, with concave hind margin (fig. 10). — Kuril Isles., Japan (Esaki, 1932: *S. suzukii* Mats.)
. *S. permagna* Stack., sp. n.

- 16 (15). Scutum with distinct yellow markings, as in other *Spilomyia*. Yellow spot on the anterior margin of the praescutum relatively small, with straight or only slightly concave hind margin.
- 17 (18). Basal half of the anterior and middle femora and basal two-thirds of the posterior femora black. — S. W. China *S. chinensis* Hull.
- 18 (17). Femora entirely reddish- or brownish-yellow, rarely with dark ventral strip.
- 19 (20). Erected sclerite of the subalar pit yellowish-red or red. Face without dark stripe. Abdomen with relatively broad reddish-yellow bands; 4th tergite reddish-yellow with diffuse dark markings. Larger species: 20—23 mm. — European part of the U.S.S.R., Siberia, Ussuri Land. ? Japan *S. maxima* Sack.
- 20 (19). Erected sclerite of the subalar pit blackish-brown. Face normally with black stripe. Abdomen with relatively narrow sharply defined yellow bands. Smaller species: 15—17 mm.
- 21 (22). Third and fourth tergites each with only one narrow yellow band on the hind margin. — Pamirs *S. annulata* Sack.
- 22 (24). Third and fourth tergites each with two relatively broad bands — near the middle and on the hind margin. — Europe, Siberia *S. diophthalma* L.