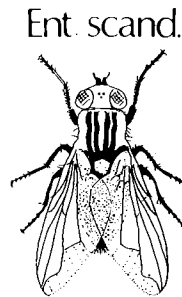


Synopsis of the European species of *Sphegina* Meigen (Diptera: Syrphidae)

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The European species of *Sphegina* are reviewed, including a new key, complete synonymies, diagnoses, distributional and biological data for all species. The nomenclatural history of the European species is reviewed and revealed that modern workers revise their predecessors' species concepts but rarely do the same for their predecessors' nomenclature. One new species is described (*atrolutea* Lucas from Spain); five new synonymies are proposed (*kimakowiczi* Strobl, 1897 = *elegans* Schummel, 1843; *eo*a Stackelberg, 1953 and *fuliginosa* Goeldlin, 1974 = *montana* Becker, 1921; and *loewii* Zeller, 1843, *rubripes* Becker, 1921 = *sphegina* Zetterstedt, 1838); and eight lectotypes are designated (for *eo*a Stackelberg, *germanica* Becker, *kimakowiczi* Strobl, *nigra* Meigen, *sibirica* Stackelberg, *rufiventris* Strobl, and *verecunda* Collin).

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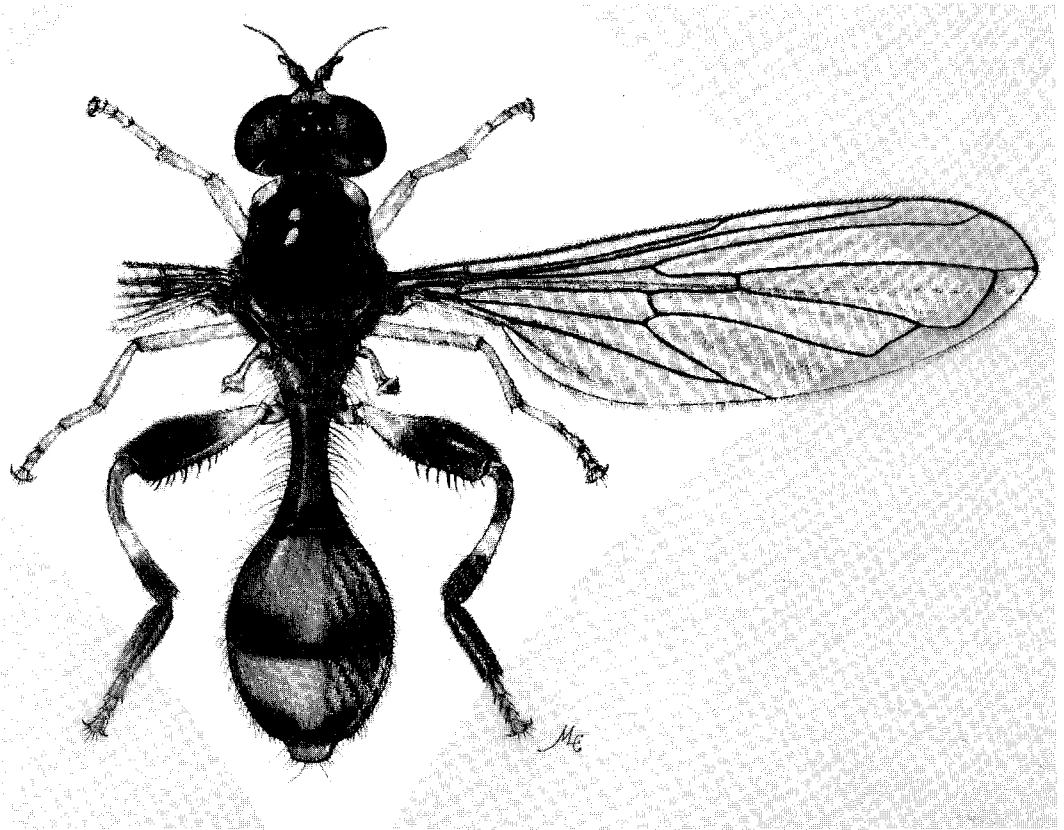
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INTRODUCTION

The genus *Sphegina* is a small group of syrphid flies that breed under the bark of trees. The adults are common pollinators of spring flowers in the northern forests. The group is largely north temperate in distribution with a limited extension into the Orient (21 Nearctic, 31 Palaearctic and 10 Oriental species). The European species are fairly well known, but their names are not. Unfortunately, this is typical of many groups of European flower flies (Thompson 1980, 1981). The currently used of 2 or 3 of the most common and widespread species of *Sphegina* are incorrect — A result of modern workers questioning the species concepts of their predecessors and revising them, but at the same time blindly accepting their predecessors' nomenclature as truth (or once a synonym always one). The history of the European *Sphegina* species is reviewed to document this phenomenon. This paper also presents a new key, one new species, four new synonyms, eight lectotype designations, complete synonymies, diagnoses, and distributional and biological data for all the European species.

Taxonomic history of *Sphegina*

The history of *Sphegina* began with Meigen's (1822) description of the genus. Meigen included two species in his genus, which he separated on the basis abdominal color. Meigen used the name *Milesia clunipes* Fallén for one of his species and described the other as new (*nigra*). Already confusion was introduced as Meigen's *clunipes* (= *elegans* Schummel) was not the same as that of Fallén, and he didn't emphasize the key character of his new species (the entirely black face). In a paper on the Syrphidae of northern France, Macquart (1829) included two species in *Sphegina*. One species was *clunipes* sensu Meigen and the other, described as new (*nigricornis*), was the true *clunipes* of Fallén. In 1834, Macquart described another new species (*flava*), the identity of which is uncertain as it was based on a teneral specimen and the type is now lost. Zetterstedt in his *Insecta Lapponica* (1838) included only one species in *Sphegina*, *clunipes* Fallén, but he described a new species (*sphegina*) in the genus *Ascia*. In his definitive work, *Diptera Scandinaviae* (1842-1860), Zetterstedt transferred his species *sphegina* to

Fig. I. *Sphegina elegans* Schummel.

Sphegina as a synonym of *nigricornis* Macquart and added a third species, "*nigra* Meigen". His concept of "*clunipes*" at first (1843) included only *elegans* Schummel, but he later (1859) enlarged it to include the true *clunipes* of Fallén as his variety "b". His *nigra* were *clunipes* specimens without abdominal markings. Schummel (1843) recorded 3 species from Silesia. He followed Meigen's species concepts and called the specimens with abdominal fasciae "*clunipes*" and those without them "*nigra*". He noted that his "*clunipes*" didn't exactly agree with Meigen's because it had blackish brown, not reddish-yellow antennae. This statement indicates that Schummel correctly identified *clunipes* Fallén. He then described a new species (*elegans*) which had pale antennae and is clearly "*clunipes*" of Meigen. Schummel also placed a question mark after *nigra* as his material had the 5th abdominal tergum brownish yellow. Zeller

(1843) also reviewed the Silesian species. He listed the same 3 species as Schummel and added a new one. Like Schummel, his "*clunipes*" was correctly identified, and his descriptive notes on "*nigra*" indicate that he and Schummel used this name for the species later described as *montana* Becker. Zeller noted that Zetterstedt's *nigricornis* wasn't the same as that of Macquart, but he didn't recognize that his new species (*loewii*) was the same as Zetterstedt's *nigricornis*.

Loew (1840) and Walker (1851) recognized only a single *Sphegina* species, *clunipes* Fallén. As Loew didn't give any descriptive data, it isn't possible to tell how many species and which species were included in his concept of "*clunipes*". Walker described 3 varieties of his "*clunipes*", and both the true *clunipes* and *elegans* are included in his concept. Westwood (1840: 136) designated *clunipes* Fallén as the type species of *Sphegina*.

Table 1. Systematic statistics for European workers on the genus *Sphegina* Meigen. Column 1, author; 2, date(s) of publication; 3, area of coverage; 4, number of species known to occur in that area; 5, number of species (=names) recognized by the author; 6, number of junior synonyms established by the author (also = number of names used by the author except for Becker were both are given); 7, number of incorrect names used by the author; 8, taxonomic score; and 9, nomenclature score.

1	2	3	4	5	6	7	8	9
Meigen	1822	Europe	10	2	1	1	200	500
Macquart	1829, 1834	Northern France	3	4	2	1	750	250
Zetterstedt	1838, 1842-60	Scandinavia	4	3	-	2	750	333
Loew	1840	West Central Poland	4	1	-	-	250	1000
Schummel	1842	Silesia	7	3	-	1	429	667
Zeller	1842	Silesia	7	4	1	1	571	500
Walker	1851	Britain	3	1	-	-	333	1000
Rondani	1857	Italy	2	2	-	1	1000	500
Schiner	1861	Austria	10	1	-	1	100	0
Strobl	1898-1910	Austria	10	5	1	1	500	600
Verrall	1901	Britain	3	1	-	-	333	1000
Becker	1921	Europe	11	8 (10)	2	1	727	700
Collin	1937	Britain	3	3	0	1	1000	666
Stackelberg	1970	European USSR	14	12	2	2	857	667

Rondani (1857) recorded 2 *Sphegina* species as occurring in Italy and separated them as did Meigen. His *nigra* is *clavata* Scopoli and his "*clunipes*" included both that species and the true *clunipes*. Schiner (1857) reviewed the previous work on *Sphegina*, listing as valid 6 species; treating only *clunipes* in detail, and merely listing the others. *Sphegina nigra* Meigen was placed as a synonym of *clunipes* as Schiner considered abdominal coloration to be variable. He also introduced *zetterstedti* as a new name for *nigricornis* of Zetterstedt. His treatment of the genus in his *Fauna Austriaca* (1861) and *Catalogus... dipterorum Europae* (1864) was the same. Previous to Schiner's work there were citations to various *Sphegina* species other than *clunipes* Fallén, but after Schiner almost all the 19th century citations to *Sphegina* species refer to *clunipes*. Egger (1865) merely described a new species (*latifrons*) in comparison to *clunipes*. Strobl (various papers, 1880-1910), alone among post-Schiner workers, recognized *clunipes* as a complex of species and/or varieties. He recognized *latifrons* Egger and *spheginea* Zetterstedt, redescribed *elegans* as *kimakowiczi*, discovered *limbipennis*, and treated *clunipes* as a cluster of at least 2 varieties (*nigra* and the typical form). The post-Schiner period (1857-1921) was best exemplified by Verrall (1901). He suggested that there was perhaps only one species of *Sphegina* in the World ("I should not be surprised if the whole genus resolved into one species..." 1901: 464). Hence, Verrall considered most names to be synonymous with

clunipes Fallén. The modern period of *Sphegina* systematics began with Becker (1921). He and subsequent workers (Collin 1938, Stackelberg 1953, 1956) rejected Verrall's simplistic species concept and discovered "new species". Unfortunately, these authors didn't question Verrall's synonymy. Thus, two valid names were lost.

The taxonomic history of *Sphegina* for the European fauna is summarized in Table 1 and documented in the detailed synonymies of the various species involved. This history illustrates 3 important points. First, very little comprehensive work has been done on Palaearctic Syrphidae. Meigen (1822) attempted to study all European flies, but almost all subsequent work has been restricted geographically (Macquart 1829 (northern France), Zetterstedt 1838, 1842-60 (Scandinavia), Walker 1851 (Great Britain), Rondani 1857 (Italy), Schiner 1860-62 (Austria), Strobl 1880-1910 (Austria, Spain, the Balkans), Verrall 1901 (Great Britain), Séguy 1961 (Western Europe) & Stackelberg 1970 (European USSR)). Sack's work (1928-32), while designed to be comprehensive, is merely a compilation of the literature. His treatment of *Sphegina* is based on Becker (1921) and doesn't contain any significant new data. This lack of comprehensive work leads to the second point. Second, monographic work of a broad scope can unduly influence future work for many generations. Schiner's *Fauna Austriaca* was the first comprehensive set of analytical keys to the Diptera fauna of any region. In this work, Schiner treated only one of six *Sphegina* species in

detail for an area where 10 species are now known to occur. He merely listed the other names. Before Schiner, at least six of these species were recognized and cited by various authors. For some 60 years after Schiner, almost all authors recognized only one *Sphegina* species. Third, while subsequent workers may question and revise the species of their predecessors, they rarely do the same for their predecessors' nomenclature. When Becker (1921) revised *Sphegina* and named four new species, he didn't recognize that three of them had been previously characterized and two had available senior synonyms. Becker rejected Verrall's concept of only one species in the genus *Sphegina*, but he didn't question Verrall's synonymy of *nigra* Meigen and *elegans* Schummel under *clunipes* Fallén. When Collin (1937) revised Verrall's "*clunipes*", he identified one of its components as *kimakowiczi* Strobl. He also identified the recently described *germanica* Becker as the same. If Collin was able to identify both of these names on the basis of their original descriptions, why wasn't he able to also identify *nigra* Meigen and *elegans* Schummel? As these names were listed as synonyms of *clunipes* Fallén by Verrall, we suspect that Collin didn't try to identify them. Stackelberg described numerous new species. However, not only didn't he check the status of the names hidden under *clunipes* by Verrall, he didn't even recognize or cite the work of his immediate predecessors, Becker and Szilady.

The table is self explanatory except for the taxonomic and nomenclatural scores. These scores are measures of a worker's ability to discover and identify species (taxonomy) and their names (nomenclature). The taxonomic score is defined as the number of species recognized divided by the total number of species known to occur in the area treated. The nomenclatural score is the number of correct names used divided by the total number of names used. The range of the raw scores is from 0 to 1 except for splitters who recognize more species than actually exist. For these raw scores, the reciprocal is used. The raw score are multiplied by 1000 and reported as whole numbers. For example, Macquart recognized 4 species for northern France, an area where only 3 species occur, so his taxonomic score is 750 (the reciprocal of 4/3). Of the 4 names Macquart used, only one is correct, so his nomenclatural score is 250 (1/4). Likewise, Schiner recognized only 1 species for an area

where 10 are known to occur, so his taxonomic score is 100 (1/10). He used the name *clunipes* Fallén for that species. However, the oldest name for an Austrian species of *Sphegina* is *clavata* Scopoli. So the correct name for the taxonomic concept of 1 Austrian *Sphegina* species would be *clavata*, not *clunipes* Fallén, and, thus, Schiner's nomenclatural score is 0 (0/1). The result shown in this table should not be extrapolated as the sample they are based on is very small. For example, Schiner's low taxonomic score doesn't necessarily mean that he was a poor taxonomist nor does Walker's perfect nomenclatural score mean that he didn't establish any synonyms. *Sphegina* was only 1 out of some 700 genera treated by Schiner, and *Sphegina clunipes* was only 1 out of some 100,000 species Walker treated in his lifetime.

TAXONOMY

Genus *Sphegina* Meigen

Sphegina Meigen, 1822: 193¹. Type-species, *Milesia clunipes* Fallén (Westwood 1840: 136). Subsequent references: Lepeletier & Serville 1825: 453 (descr., world spp.) in: Latreille et al. 1825-28; Latreille 1825: 496, 1829a: 546, 1829b: 497 (descr.); Berthold 1827: 505 (descr.); Macquart 1829: 164 (descr., northern French spp.), 1834: 576 (descr.); Griffith & Pidgeon 1832: 704 (descr.); Zetterstedt 1838: 581, 1843: 890 (descr., Scandinavian spp.); Schummel 1843; Zeller 1843 (descr., Silesia spp.); Desmarest 1848: 743 (descr.); Walker 1851: 301 (descr., British spp.); Rondani 1857: 102 (descr., Italian spp.); Schiner 1857: 381 (rev. past work), 1861: 323 (descr., Austrian spp.); Bonsdorff 1861: 297 (descr., Finnish spp.); Verrall 1901: 463 (descr., British spp.); Bezzi & Stein 1907: 83 (cat. Palaearctic spp.); Wahlgren 1909: 56 (Swedish spp.); Kertész 1910: 171 (cat. World spp.); Lundbeck 1916: 368 (descr., Danish spp.); Becker 1921: 30 (key Palaearctic spp., descr.); Sack 1929: 119 (rev. Palaearctic spp., key), 1930: 46-47 (rev. German spp., key); Gil Collado 1930: 184 (Spanish spp.); Enderlein 1936: 122 (key ref.); Collin 1937 (rev. British spp., key); Hull 1949: 334 (descr.); Coe 1953: 52 (key British spp.); Stackelberg 1953, 1956a, b (rev. Palaearctic spp.), 1970: 43 (key, European USSR); Suster

¹ The format used for each generic name is: Name Author Date: Page of original description. Type-species, Specific name in its original combination (Author of subsequent type-designation Date: Page of designation). Author Date: Page of subsequent reference(s) (Notes on contents of reference). Abbreviation used in the synonymy are (except for those used for the location of types that are given in the acknowledgments): A = Adult or Adult structures; E = Egg; HT = Holotype; IS = Immature stages; L = Larva; LT = Lectotype; MG = Male genitalia; P = Puparium; ST = Syntypes; T = Type(s); and* = illustrated or examined.

1959: 110 (Romanian spp.); Séguy 1961: 50 (descr., west. Europ. spp.); Hartley 1961: 538 (immature stages, key); Bańkowska 1963: 205 (key Polish spp.); Andersson 1966 (rev. Swedish spp.); Lehrer & Lehrer 1967: 17 (Romanian spp.); Torp Pedersen 1968 (rev. Danish spp.); Bradescu 1972 (Romanian spp.); Speight et al. 1975: 19 (Irish spp., habits); Goot 1981: 125–130 (key to spp. Europe).

Sphecina Agassiz, 1846: 347 (unjustified emendation).
Sphoegina, Rondani 1857: 102 (misspelling).
Humatrix Gistel, 1848: 154 (unjustified new name for *Sphegina* Meigen).

Small, elongate flies (4–8 mm). Head: face strongly concave, bare; cheek linear; eyes bare, dichoptic in both sexes; antenna short, as long as face, with 3rd segment orbicular; arista bare or pubescent. Thorax: anterior mesopleuron, posterior pteropleuron, hypopleuron (including barrette), metasternum all bare; scutellum usually with marginal bristles, without subscutellar fringe; postmetacoxal bridge complete; legs normal except hind femur enlarged and with ventroapical spinose bristles. Wing: Usually hyaline, rarely with crossvein margined with brown; alula narrow or absent, always narrower than width of anal cell; marginal cell open; apical cell closed and petiolate; anterior crossvein at basal 1/3 or less of discal cell; spurious vein present or absent. Abdomen petiolate.

Sphegina belongs to the subfamily Eristalinae, tribe Brachyopini, subtribe Spheginina (sensu Thompson 1972: 114–115). The genus is separated from all other syrphid flies by the following combination of characters: 1) postmetacoxal bridge is complete and broad; 2) the face is strongly concave; 3) 3rd antennal segment is oval; and 4) the apical crossvein is oblique, forming an acute angle with the 3rd vein. The phylogenetic relationships of *Sphegina* are discussed and diagrammed by Thompson (1972: 114–115, 1976); the sister group of *Sphegina* is *Neoascia* Williston.

When Meigen described *Sphegina*, he included two species, *Milesia clunipes* Fallén and his new species, *nigra* Meigen. As noted above, Meigen misidentified *clunipes* Fallén, as his description of that species applies to *elegans* Schummel. Both *clunipes* Fallén and *elegans* Schummel belong to *Sphegina*, *sensu stricto*, as presently defined. Hence, present definition of *Sphegina* will not change regardless of which species is declared the type of the genus. However, the *Code* requires that zoologists, who consider that a type species was misidentified, to refer the cases to the International Commission on Zoological Nomenclature for designation of a type species. We are not doing so, because, as indicated, the question is trivial, that is, either answer gives the same results. Also, an appeal to the Commission is very costly in both time and money.

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Key to the European species of *Sphegina* Meigen

- 1. First sternum absent; face and humerus black; sternopleuron shiny (*Asiosphegina*) *sibirica* Stackelberg 2
- First sternum present, oval (*Sphegina*) 2
- 2. Sternopleuron shiny, without pollenosity; hind coxa black; face usually entirely black; male genitalia, Figs. 17, 18 *montana* Becker 3
- Sternopleuron dull, gray pollinose 3
- 3. Face entirely dark, brownish to black 4
- Face pale yellow to orange on ventral 1/4 or more 10
- 4. Hind coxa dark, brownish to black 5
- Hind coxa partially pale, yellow to orange 8
- 5. Front and middle legs extensively pale, whitish to yellow, with at least femora and tibiae entirely pale, only apical tarsomeres dark; ♂ middle tibia greatly expanded on apical 1/4 (Fig. 43); ♂ front tarsus flattened (Fig. 41); ♂ hind femur sinuate ventrally (Fig. 42) *platychira* Szilady 6
- Front and middle legs extensively dark, brownish to black, with femora entirely and tibiae on apical 1/2 dark; without other characters 6
- 6. Front and middle tarsi unicolorous, entirely dark 7
- Front and middle tarsi bicolorous, with basal 2 tarsomeres white and apical tarsomeres black *dogieli* Stackelberg 7
- 7. ♂ front with long black hairs, with some hairs longer than 3rd antennal segment width; apical cell acute apically; apical crossvein (upturned portion of M₁₊₂) processive, forming an acute angle with 3rd vein (Fig. 30); ♂ surstyle angulate in lateral view, inner margins subparallel in dorsal view (Figs. 21,22) (widespread) *sphaginea* (Zetterstedt) 8
- ♂ front with short pale hairs, all hairs much shorter than 3rd antennal segment width; apical cell obtuse apically; apical crossvein perpendicular at junction with 3rd vein; ♂ surstyle straight in profile, with inner margins concave in dorsal view (Caucasia) *negrobovi* Skuffin 8
- 8. Humerus yellow; wing tip brown (Fig. 29); front and middle tarsi with dark brown to black tarsomeres (Spain) *limbipennis* Strobl 9
- Humerus dark, brown to black; wing hyaline (Figs. 27, 28); front and middle tarsi yellow 9
- 9. Antenna pale orange; Sc joining C before r-m crossvein (Fig. 27); ♂ surstyle narrowed and pointed apically; ♂ aedeagus blunt apically (Figs. 3, 4) (Europe south of Northern Germany) *clavata* (Scopoli) 9
- Antenna darker, brownish black to black on basal segments, 3rd segment may be paler brown;

- Sc joining C at or beyond r-m crossvein (Fig. 28); ♂ surstyle broad, blunt apically; ♂ aedeagus hooked apically (Figs. 25, 26) (Northern Europe) *verecunda* Collin
10. Hind coxa and trochanter dark, brownish black to black; ♂ genitalia enlarged, with surstyle elongate and always visible externally; ♂ 4th sternum with apicolateral tufts of long bristles (Figs. 33, 34) 11
 — Hind coxa and trochanter partially yellow; ♂ genitalia not enlarged; with surstyle shorter and concealed under 4th sternum; ♂ 4th sternum without bristles 12
11. ♂ surstyle acute apically (Fig. 33); 3rd and 4th sterna without patches of black spiniform hairs *cornifera* Becker
 — ♂ surstyle obtuse apically (Fig. 34); 3rd and 4th sterna with basal patches of strong black spinose hairs; ♀ 5th tergum with submedial apical membranous clefts, each about as long as wide *latifrons* Egger
12. Humerus dark, brownish black to black; ♂ 3rd antennal segment small; ♀ 4th and 5th sterna broader than long 14
 — Humerus pale, yellow to orange; ♂ 3rd antennal segment large; ♀ 4th and 5th sterna longer than broad. ♀ 2nd tergum not as greatly expanded apically, only twice as broad apically as at base .. 13
13. Mesonotum entirely dull brownish pollinose; front and middle tarsi with apical tarsomeres dark, brownish black; wing brownish black on margin and apex (Fig. 29)(Spain) *limbipennis* Strobl
 — Mesonotum extensively shiny black, pollinose only on margins; front and middle tarsi entirely pale; wing hyaline (Fig. 28) *elegans* Schummel
14. ♂ hind tibia transverse apically; 4th tergum short, much broader than long; genitalia asymmetrical (Fig. 6) *claviventris* Stackelberg
 — ♂ hind tibia with a small apicoventral spur; 4th tergum long, about as broad as long; genitalia symmetrical 15
15. ♂ surstyle sinuate in lateral view (Fig. 1); ♂ front and middle tarsi with dark apical tarsomeres; ♀ front and middle tarsi entirely brown; ♀ 2nd tergum not greatly expanded apically, only twice as broad apically as at base; 5th tergum with a distinct raised apical margin (Spain) *atrolutea* Lucas, sp. n.
 — ♂ surstyle straight in lateral view (Fig. 7); ♂ ♀ front and middle tarsi usually entirely pale yellow, rarely with apical tarsomeres darker brownish orange; ♀ 2nd tergum greatly expanded apically, about 3 times as broad apically as at base; 5th tergum without raised apical margin (widespread) *clunipes* (Fallén)

Females of *claviventris* Stackelberg, *cornifera* Becker, *dogieli* Stackelberg and *negrobovi* Skujin are not known.

Subgenus *Sphegina* Meigen

Sphegina atrolutea Lucas, sp. n.

Figs. 1, 2.

Description

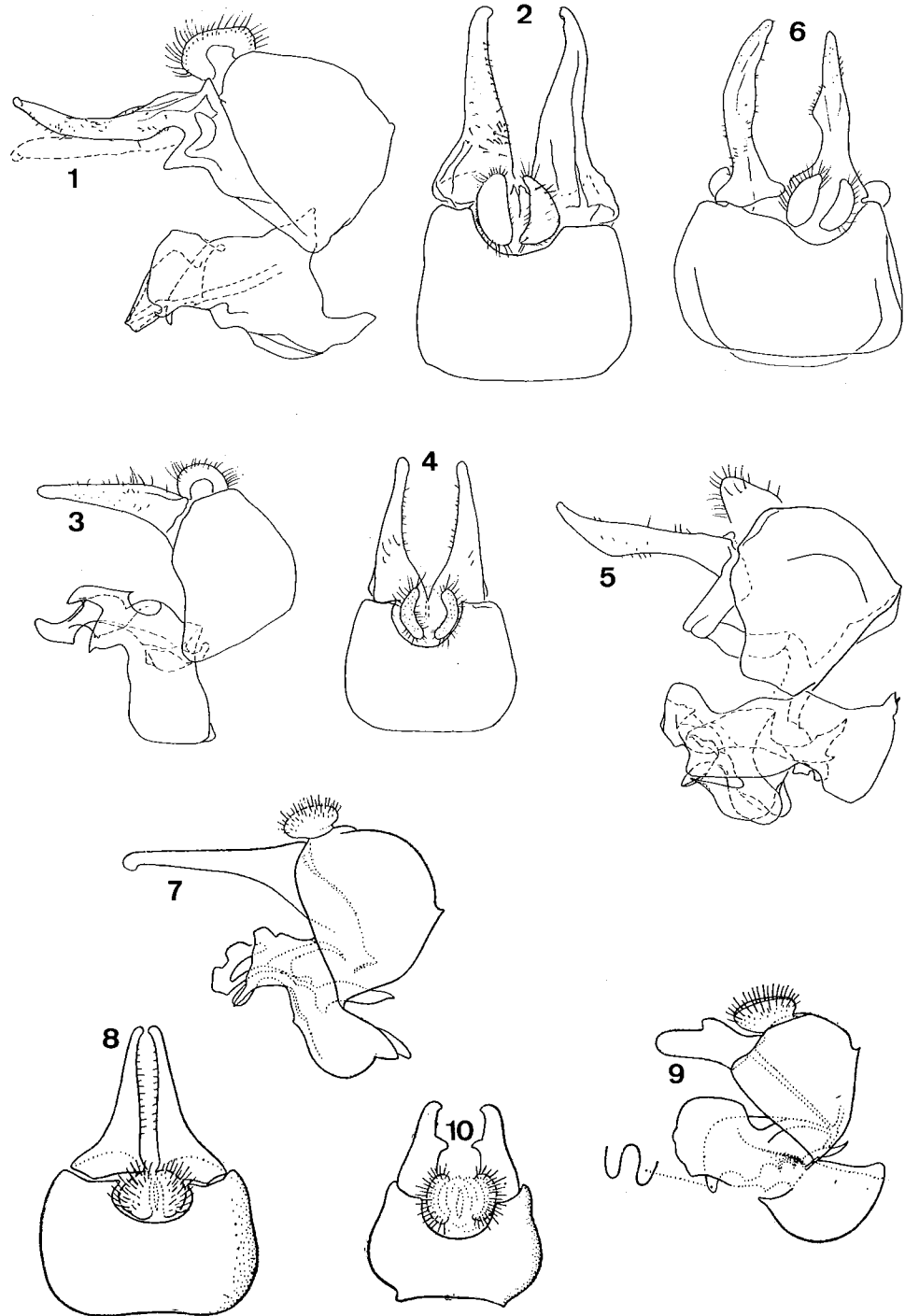
MALE. *Head:* Face yellow on ventral 1/2, black dorsally, white pollinose; cheek yellow except black on posterior 1/3, white pollinose; frontal lunule black; front and vertex narrow, 1/5 as wide as head, black, brownish-gray pollinose, yellow pilose; occiput black, gray pollinose, yellow pilose; antenna black, yellow pilose; 3rd segment small, oval, hardly longer than broad.

Thorax: Black, gray pollinose except shiny disc of mesonotum and scutellum, yellow pilose; squama white; halter yellow. *Legs:* Front coxa yellow except brown on basal 1/3, sparsely white pollinose, yellow pilose; middle coxa yellow medially, brown laterally; hind coxa brown, except slightly more yellowish medially; front and middle trochanters yellow; hind trochanter brown; front and middle femora and tibiae yellow orange, yellow pilose; front and middle tarsi yellow except brown on apical 3 - 4 tarsomeres, yellow pilose; hind femur black except yellow basal 1/4, sparsely grayish white pollinose, yellow pilose, with black ventral spines on apical 3/4; hind tibia black except yellow basal and subapical annuli, with a posterior apicoventral spur, with a medial ventral carina on basal 1/2, yellow pilose; hind tarsus brownish black, yellow and black pilose; wing hyaline, entirely microtrichose, with r-m crossvein beyond end of sc.

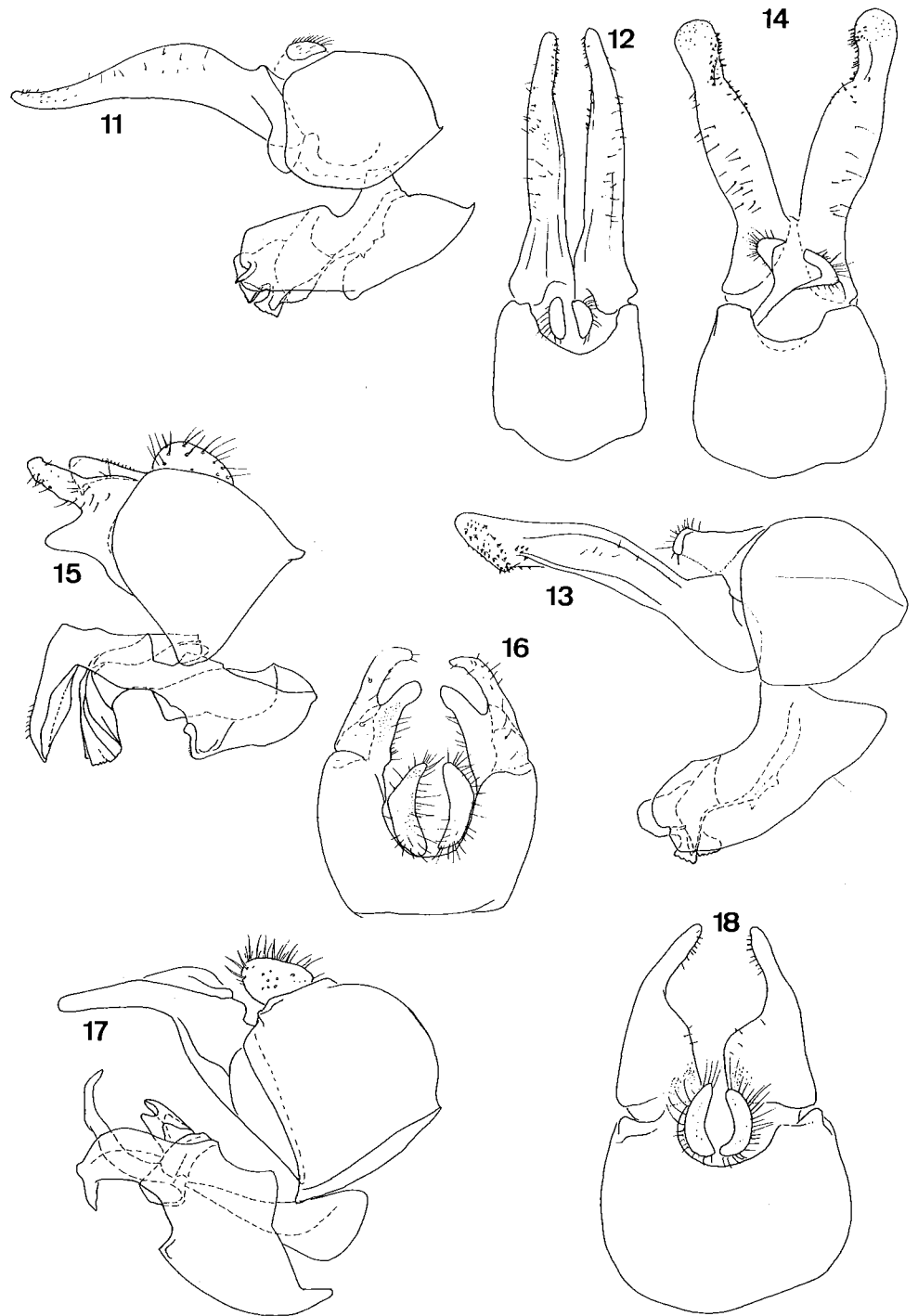
Abdomen: Black except yellow basal 2/3 of 3rd tergum and 3rd sternum, pale pilose, shiny except grayish pollinose on 1st tergum; 2nd tergum slightly wider apically than basally (1.5) and about 4 (4.5) times as long as wide basally; 4th tergum wider apically than basally; 4th sternum with an obvious incurvation; genitalia (Figs. 1, 2).

Female similar to male except for normal sexual dimorphism and: Front broader, about 1/4 as long as broad; 2nd tergum shorter and broad, about twice as broad apically as basally; 4th and 5th sterna much broader than long; 3rd to 5th segments completely yellow.

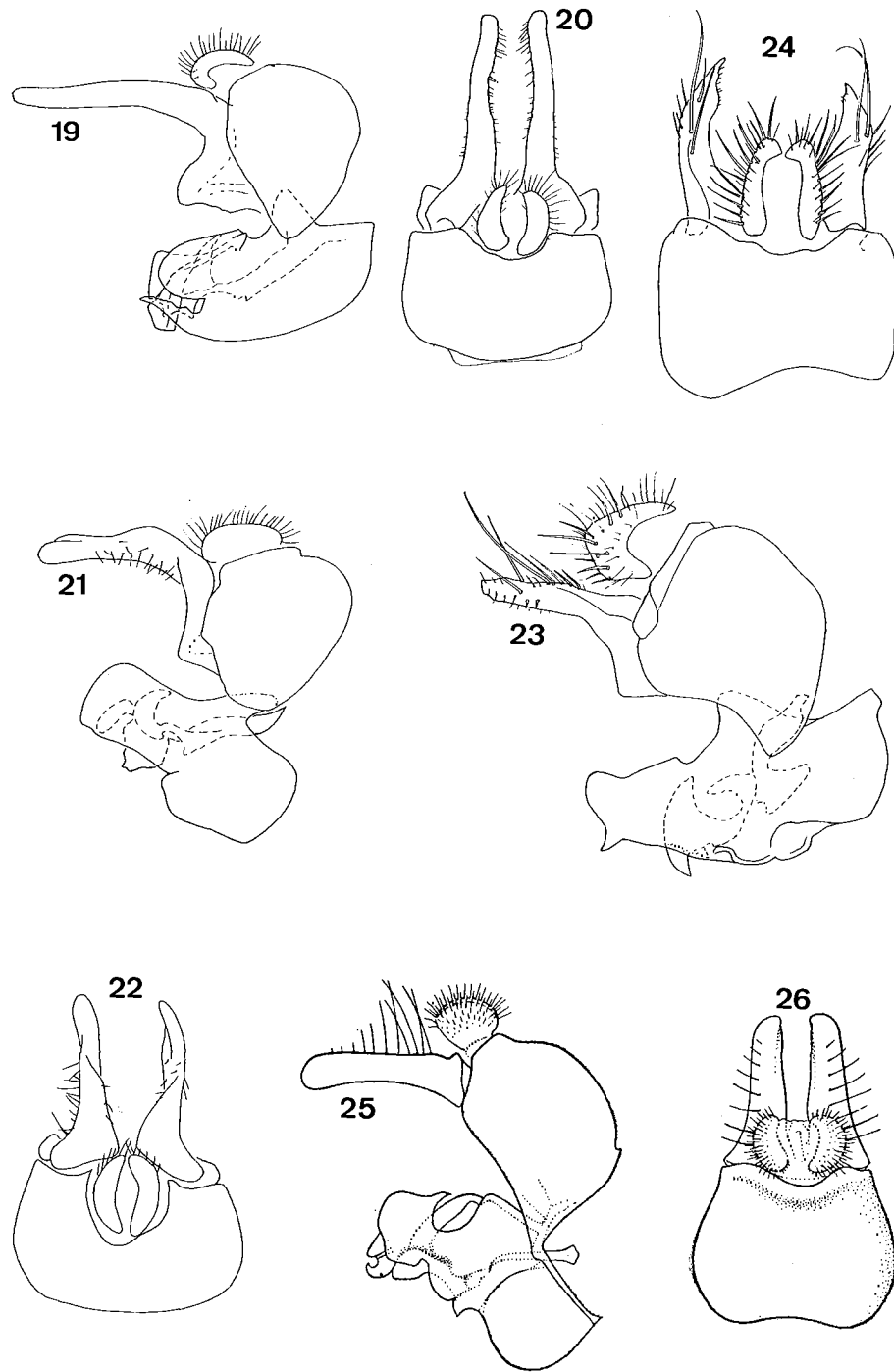
Types: Holotype ♂ and allotype ♀, SPAIN, Oviedo, Puerto de Pajares, 1650 - 1700 m, 22 July 1972, J. A. W.



Figs. 1-10. Male genitalia of *Sphegina*. — 1. *atrolutea* Lucas, lateral. — 2. Same, dorsal. — 3. *clavata* Scopoli, lateral. — 4. Same, dorsal. — 5. *claviventris* Stackelberg, lateral. — 6. Same, dorsal. — 7. *clunipes* Fallén, lateral. — 8. Same, dorsal. — 9. *elegans* Schummel, lateral. — 10. Same, dorsal. (7-10 after Collin 1937).



Figs. 11–18. Male genitalia of *Sphegina*. — 11. *cornifera* Becker, lateral. — 12. Same, dorsal. — 13. *laifrons* Egger, lateral. — 14. Same, dorsal. — 15. *limbipennis* Strobl, lateral. — 16. Same, dorsal. — 17. *montana* Becker, lateral. — 18. Same, dorsal.



Figs. 19–26. Male genitalia of *Sphegina*. — 19. *platychira* Szilady, lateral. — 20. Same, dorsal. — 21. *sphegina* Zetterstedt, lateral. — 22. Same, dorsal. — 23. *sibirica* Stackelberg, lateral. — 24. Same, dorsal. — 25. *verecunda* Collin, lateral. — 26. Same, dorsal. (25–26 after Collin 1937).

Lucas, in the private collection of Lucas; 1 ♂ paratype with same data except collected 21 July 1972, in U. S. National Museum.

Lucas discovered a new *Sphegina* species in Spain and has graciously provided us with the description and name of his new species. The species is quite similar to *clunipes* Fallén differing only in the structure of the male genitalia (Figs. 1,2) and the other characters given in the key. The name is derived from *atro* meaning black and *lutea* meaning yellow as these are the prominent colors of the species. The specimens were collected along a small stream in a steep canyon on flowers, where they flew together with *Sphegina latifrons*.

Sphegina clavata (Scopoli)

Figs. 3,4,27,31.

Conops clavatus Scopoli, 1763²: 357. Type-loc.: (Carniola). Type adult (sex unknown) Scopoli Coll. (now destroyed).

Sphegina clavata: Thompson 1981: 472 (identity).

Sphegina nigra Meigen, 1822: 195. Type-loc.: (Germany, Aachen, Stolberg). Lectotype ♀ Meigen Coll., MNHN, Paris. Subsequent references: Lepeletier & Serville 1825: 453 (descr.) in: Latreille et al. 1825-28; Macquart 1834: 576 (descr.); Roser 1840: 54 (Germany, Württemberg); Rossi 1848: 36 (Austria); Am Stein 1857: 97 (Switzerland, Graubünden); Rondani 1857: 104 (Italy); Morge 1975: 406, pl. 70 (Meigen's color figure); Thompson 1981: 472 (notes on type).

verecunda of: Lambeck 1968: 99 (Yugoslavia, Slovenia); Goeldlin 1975: 163 (Switzerland).

verecunda of: Anikina 1966: 145 (USSR, Ukrainian Transcarpathia); Bańkowska 1967: 386 (H* Bulgaria); Brădescu 1972: 152 (Romania).

clunipes of: Kittel & Kriechbaumer 1872: 74 (Germany, Bavaria; as var. *nigra*); Strobl 1880: 60 (Austria), 1893: 160 (var. 2, Austria); Morge 1974: 256 (specimens in Strobl Coll.).

erroneous references to *nigra*: Stephens 1829, Curtis 1831, 1837 (= *verecunda*); Zetterstedt 1843, 1849, 1859 (= *clunipes*); Schummel 1843, Zeller 1843 (= *montana*); Siebke 1877: 74 (= *clunipes*); Strobl 1893: 160 (var., = *clunipes*); Morge 1975: 256 (var., = *clunipes*).

Description

Body 6.0 mm, wing 5.1. *Head*: Black except brownish orange frontal lunule, gray pollinose;

face narrow, about 1/3 as wide as head at its maximal; front narrow, about 1/5 as wide as head at its maximal, partly shiny, shiny above antenna, short yellow haired; cheek and occiput yellow haired; antenna orange, black haired, 3rd segment round; arista pubescent.

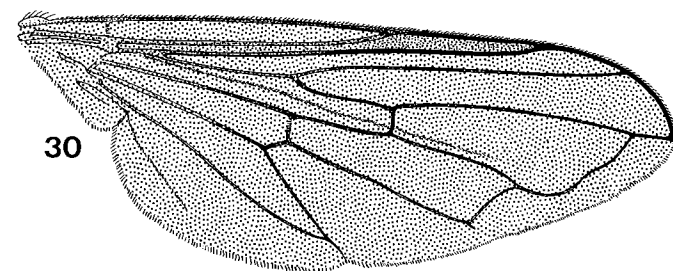
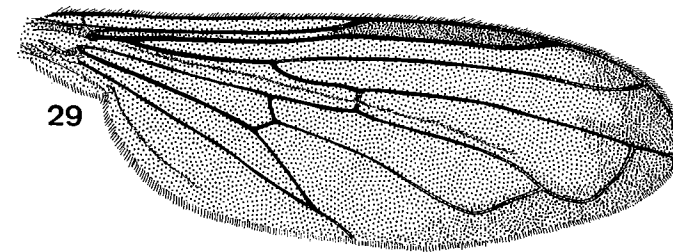
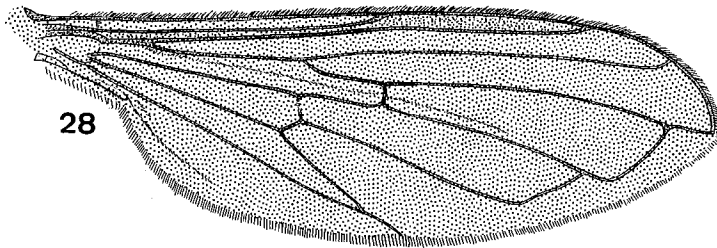
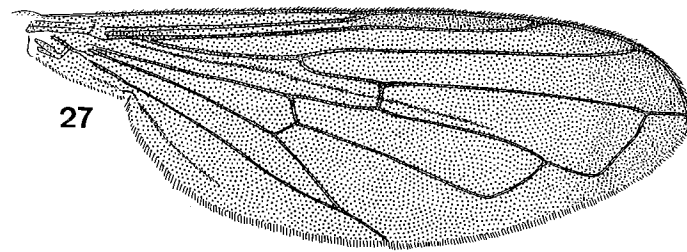
Thorax: Black; humerus gray pollinose; mesonotum shiny except gray pollinose notopleuron, appressed short yellow haired; scutellum shiny, yellow haired, apical scutellar bristles approximate, orange; pleuron pollinose; sternopleuron bare; squama, plumula, halter orange. *Legs*: Front 2 legs orange, orange haired; hind coxa orange except more brownish posteriorly; hind trochanter orange; hind femur orange on basal 1/3 and apex, brownish black on medial 1/3, with ventral spines on apical 1/2 only; hind tibia brownish except yellow basal 1/4 and subapical 1/4, pale haired; hind tarsus brownish, black haired. *Wing*: Microtrichose, hyaline except brownish apically; venation (Fig. 27).

Abdomen: Black except orange basal 2/3 of 3rd tergum and all of 3rd sternum, yellow haired, shiny except gray pollinose 1st and base of 2nd terga; 4th sternum not unusually modified. *Male genitalia* (Figs. 3,4): Cercus small, oval; surstyle elongate, narrowed apically; 9th sternum short; lingular area concave; superior lobe haired, with a basoventral and dorsoapical projections; aedeagus elongate, footshaped apically.

Distribution (Fig. 31): Netherlands, Belgium, France, Germany, Czechoslovakia, Switzerland, Austria, Hungary, Spain, Italy, Yugoslavia, Greece, Romania, Bulgaria, U.S.S.R. (SW-part).

When Thompson (1981) reviewed the names that had been applied to *Neoascia* species, he identified *Conops clavatus* Scopoli as a *Sphegina* species. While he noted that the name *clavatus* could apply to a number of *Sphegina* species because description was of a teneral specimen, he used the name *clavata* for the species previously called *verecunda* Collin as that name had to be changed in any case. Unfortunately, at that time he was unaware that *verecunda* was a complex of two very closely related species, distinguishable only by distribution and male genitalic characters. We hereby use the name *clavata* Scopoli for the species of the complex which is widespread and occurs in Austria and Yugoslavia, the area from which Scopoli described his species. The name *verecunda* is restricted to the more northern spe-

² The format used for each specific name is: Name Author Date: Page of original description. Type-loc.: type-locality Kind of Type Stage(s) described Location of Type. Author Date: Page of subsequent reference(s) (Notes on contents of reference).



Figs. 27–30. Wings of *Sphegina*. — 27. *clavata* Scopoli. — 28. *elegans* Schummel. — 29. *limbipennis* Strobl. — 30. *sphegina* Zetterstedt.

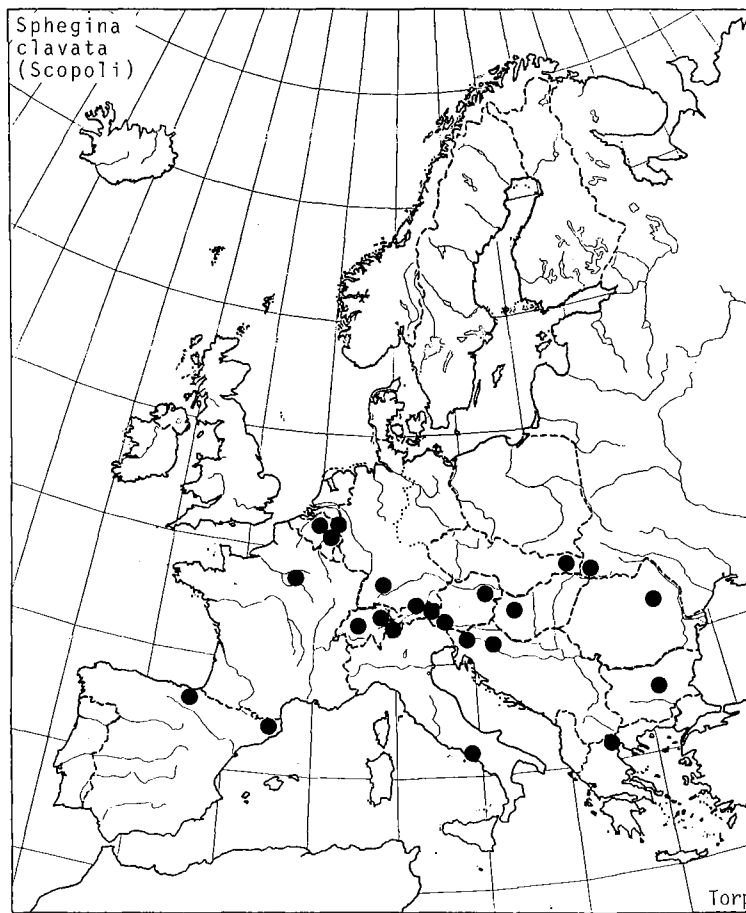


Fig. 31. *Sphegina clavata* Scopoli. Distribution map.

cies as this is the only species found at the type locality of that name.

Sphegina nigra Meigen was based on 2 females, one collected by Meigen and the other by Baumhauer. A single female remains in the Meigen collection, is here designated as lectotype, and has been so labelled. While Meigen mentioned no specific locality for *nigra*, the species was probably collected in the Aachen area as both Baumhauer and Meigen lived and collected there. Hence we have restricted the type-locality. A specimen of *clunipes* now in the Naturhistorische Museum Wien may be the other syntype. It is labelled with a small pink square, a locality label in Meigen's hand ("Stolberg"), a determination label ("nigra/det. Wiedemann.") and a collection label ("Coll. Winthem"). While this is undoubt-

edly a specimen collected by Meigen, we doubt that it is the second syntype as Meigen would have kept his first specimen (the lectotype) and the Baumhauer specimen should be in Baumhauer's collection, now deposited in Leiden(?).

Sphegina clavata is related to *verecunda* Collin, but differs in the structure of male genitalia.

***Sphegina claviventris* Stackelberg**

Figs. 5,6.

Sphegina claviventris Stackelberg, 1956: 710, 942. Type-loc.: U.S.S.R., Sakhalin, southern part. Holotype ♂ ZIAS, Leningrad. Subsequent references: Stackelberg 1970: 46 (European USSR); Goot 1981: 130 (key ref., European USSR).

Diagnosis: Body 10.6 mm, wing 8.3 mm, face yellow on ventral 2/3; front pollinose except shiny dorsad to antenna and ventrad to ocelli, with short pale pile; antenna brown except orange of basoventral of 3rd segment, with 3rd segment small, oval; thorax black; mesonotum shiny medially, short yellow haired; pleuron pollinose; scutellum shiny, with 2 apical yellow bristles; front legs yellow; hind leg mainly black, with coxa yellow, with femur yellow on basal 1/5; with tibia yellow on ventral 2/3 and brownish apically, tarsus brownish; leg hair pale; wing hyaline, venation as in *clunipes*; abdomen mainly black, yellow haired; 2nd tergum with narrow angulate yellow fascia on apical 2/3; 3rd tergum with large narrowly separated quadrate yellow maculae on basal 1/2; 3rd sternum yellow; 2nd tergum about 1.5 as wide at base as apically and about 3 (2.9) times as long as wide basally; 4th sternum normal; male genitalia (Figs. 5,6). Female unknown.

Distribution: U.S.S.R. (Northern European U.S.S.R. (Komi), Sakhalin).

Sphegina clunipes (Fallén)

Figs. 7,8,32.

Milesia clunipes Fallén, 1816: 12. Type-loc.: Sweden, Smolandia. Lectotype ♂ Fallén Coll., NRS, Stockholm.

Sphegina clunipes (verified references): Zetterstedt 1843: 891 (in part, Sweden), 1859: 6043 (var. b, Sweden); Nowicki 1873: 25 (Poland, Tatra Mts.); Verrall 1901a: 464 (in part, H* descr., Britain); Lundbeck 1916: 370 (in part, Ant* Denmark); Becker 1921: 33 (A* descr. notes, key ref.); Sack 1921: 158 (IS* descr. IS), 1928: 4 (IS*), 1929: 120 (H* A* descr., Europe), 1930b: 47 (descr., Germany, H* A*); Hobby 1930: 20, 1936: 81 (prey of *Dioctria rufipes* De Geer); Drenski 1934: 115 (Bulgaria); Collin 1937: 184 (H* MG* rev., note on type, status in Britain); Frey 1941: 13 (Finland); Lindner 1944: 262 (Germany, Niederdonau); Kloet & Hincks 1945: 380 (Britain); Audcent 1950: 53 (England, Bristol); Coe 1953: 52 (H* MG* Britain), 1960: 56 (Yugoslavia); Stackelberg 1953: 385 (H* MG* key ref.), 1956a: 710 (key ref.), 1958: 229 (USSR, Leningrad Obl.), 1970: 46 (H* MG* European USSR); Parmenter 1954: 140 (British Isles), 1959: 4 (England, Pembrokeshire); Glumac 1955: 13, 1957: 49, 1972: 13 (Yugoslavia), 1959: 8 (MG* Scotland), 1968: 850 (Macedonia); Malski 1959: 481 (Poland, Tatra Mts.); Goot 1958a: 235 (Netherlands), 1958b: 95 (France, Andorra, Pyrenees), 1969: 91 (Italy); Brindle 1959: 131 (England, Lancashire, Cheshire); Lambeck 1959: 148 (Netherlands), 1960: 135 (Austria), 1968: 99 (Yugoslavia, Slovenia); Trojanow-Bañkowska 1959: 148 (MG* Poland); Zimina 1960: 663 (USSR, Transcaucasia); Hartley 1961: 538

(Larva*, descr.); Hogendijk 1961: 58 (Netherlands); Séguy 1961: 51 (Western Europe); Bañkowska 1961: 280 (Poland), 1963: 208 (♀ sterna*, H*, MG*, Poland), 1964: 313 (Poland, Sudetic Mts.), 1967: 385 (Bulgaria), 1971: 464, 1976: 89, 1980: 89 (Poland); Goot et al. 1961: 65 (Netherlands); Goot & Lucas 1964: 8, 1967: 199 (Netherlands); Lucas 1965: 183, 1969: 204 (Netherlands); Anikina 1966: 146 (USSR, Ukrainian Transcarpathia); Andersson 1966: 180 (lectotype design., Sweden); Lehrer & Lehrer 1967: 17 (Romania); Torp Pedersen 1968: 130 (W* MG* A* Denmark), 1973: 30, 1975: 183 (Denmark); Moucha 1970: 143 (Czechoslovakia, "Riesengebirges"); Moucha & Goot 1971: 153 (Czechoslovakia); Brădescu 1971: 39, 1972a: 151, 1972b: 147, 1977: 35 (Romania); Nielsen 1972: 64 (Norway); Korman 1973: 147 (SW Germany); Nielsen & Torp Pedersen 1973: 297 (Sicily); Payne 1974: 92 (England, Essex); Goeldlin 1974: 163 (Switzerland); Brown & Searle 1974: 122 (England, Cornwall); Speight et al. 1975: 73 (Eire); Aubert et al. 1976: 133 (Switzerland); Smith 1976: 66 (Britain); Carter 1978: 39 (England, Reading); Rothcray 1979: 36 (England, Staffordshire); Owen 1979: 26 (England, Leicestershire); Claussen 1980: 21, 56 (Germany, Schleswig; flower recs.); Hackman 1980: 123 (Finland); Röder 1980: 38 (Germany, flower records); Goot 1981: 129 (H*, MG*, Ab*, W*, key ref., Netherlands, Europe).

Sphegina clunipes (unverified references): Lepeletier & Serville 1825: 453 (descr., France) in: Latreille et al. 1825-28; Stephens 1829: 281 (Britain); Curtis 1831: 217, 1837: 250 (Britain); Haliday 1833: 150 (Ireland, Downshire); Roser 1834: 9 (Germany, Württemberg); Loew 1840: 28 (Poland, Posen); Schummel 1843: 166 (Silesia, Breslau); Zeller 1843: 302 (descr., Silesia); Rossi 1848: 36 (Austria; flower (*Caltha palustris*)); Walker 1849: 547 (England), 1851: 302 (descr., 4 var., England); Schenck 1850: 36 (Germany, Nassau); Boheman 1852: 199 (Sweden); Rondani 1857: 105 (Italy); Schiner 1857: 381 (syn. *nigra* Meigen, biol. notes, Austria), 1861: 323 (descr., Austria), 1864: 103 (cat. cit.); Osten Sacken 1858: 144 (USSR, Leningrad Region); Malm 1860: 77 (Sweden; flowers (*Geum rivale*, *Lamium album*, *Prunus padus*)); Bonshorff 1861: 297 (descr., Finland, flower (*Angelica sylvestris*)); Gredler 1861: 13 (Austria, Tirol); Puls 1865: 13 (Germany, Berlin); Storch 1865: 118 (Austria, Salzburg); Palm 1869: 443 (Austria, Tirol), 1872: 26 (Austria); Raddatz 1873: 112 (Germany, Mecklenburg); Grzegorsek 1873: 36 (Poland, West Galicia); Kowarz 1873: 459 (Hungary), 1885: 105, 133 (diff. *zetterstedti*, Bohemia), 1894: 17 (Bohemia); Frivaldsky 1873: 240 (Romania); Fritsch 1875: 52 (Austria); Schnabl 1877: 10 (Poland); Mocsary 1877: 59 (Hungary, Romania); Siebke 1877: 74 (Norway); Kittel & Kriechbaumer 1872: 74 (Germany, Bavaria); Strobl 1880: 15 (Austria), 1893: 159 (var. *nigra* & 2, Austria), 1897: 39 (Romania, Transsylvania), 1898a: 222 (syn.), 1898b: 436, 1900: 591 (Yugoslavia), 1901: 38 (Carinthia), 1902: 482, 1904: 542 (Yugoslavia); Sznabl 1881: 379 (Poland); Neuhaus 1886: 91 (Germany, Brandenburg); Beuthin 1887: 38 (Germany, Hamburg); Gobert 1887: 73 (France); Tief 1888: iii (Carinthia; flower (*Saxifraga rotundifolia*)); Schoch 1889: 35 (Switzerland); Becker 1889: 191 (Switzer-

land, Graubunden); Brischke 1890: 96 (Prussia); Bobek 1890: 225 (Tatra); Czwalina 1893: 15 (Danzig); Girschner 1897: 586 (Squama*); Grimshaw 1897: 24, 1899: 7, 1900: 23, 1901: 262, 1903: 215 (Scotland), 1912: 21 (Ireland); Thalhammer 1899: 37 (Hungary), 1902: 13 (Transsylvania); Bidentkap 1900: 51 (Norway); Jacobs 1901: 324 (Belgium); Verrall 1901b: 71 (cat. cit.); Yerbury 1902: 82 (Eire), 1913: 89 (Scotland), 1918: 64 (Britain, Wales), 1919: 229 (England, Devon); Wingate 1903: 278 (England, Durham); Henderson 1905: 153 (England, Clyde); Czižek 1907: 175 (Czechoslovakia), 1909: 163 (Czechoslovakia, Sudetic Mts.); Sack 1908: 115 (Germany, Frankfurt a. M. district); Wahlgren 1909: 56 (Sweden); Kröber 1909: 52 (Germany, Hamburg), 1930: 65 (Germany, Denmark); Becker et al. 1910: 654 (Corsica); Kertész 1910: 171 (cat. cit.); Schroeder 1911: 346 (Pomerania); Nedialcow 1912: 201 (Bulgaria); Charbonnier 1912: 64 (England, Bristol), 1917: 167 (England, Somerset); Carter 1912: 131 (Scotland, Perthshire); Stackelberg 1916: 210 (USSR, Leningrad Obl.); Lundbeck 1919: 249 (Denmark); Speiser 1924: 12 (East Prussia); Hamm 1926: 265 (England, Oxford); Fordham 1926: 76 (England, Durham); Gil Collado 1930: 185 (Spain); Stackelberg 1933: 237 (European USSR); Thornley 1935: 93 (England, Cornwall); Karl 1935: 251 (Pomerania); Szilady 1939: 139 (var. *nigra*, descr. note); Wright 1940: 245 (England, North Lancashire); Suster 1943: 563, 1946: 386 (Romania), 1959: 112 (H* A* descr., Romania); Fordham 1945: 235 (England); Morge 1975: 256 (material in Strobl Coll.).

erroneous references (in part or total) to *clunipes*: Meigen 1822 & Morge 1975 (= *elegans*); Lepelletier & Serville 1825 (= *elegans*) in: Latreille et al. 1825-28; Macquart 1829, 1834 (= *elegans*); Zetterstedt 1838, 1843 & 1849 (= *elegans*); Kittel & Kriechbaumer 1872: 74 (= *clavata*); Strobl 1880: 60 (= *clavata*), 1893: 160 (var. 2 = *clavata*, var. 4 = *elegans*), 1898: 222 (= *elegans*); Verrall 1901a: 464 (= *elegans*); Lundbeck 1916: 370 (= *elegans*); Glumac 1958: 103 (= *elegans*); Morge 1974: 256 (= *clavata*).

Sphegina nigricornis Macquart, 1829a: 166 (1829b: 18). Type-loc.: Northern France. Types ♂ ♀ Macquart Coll., Lille (lost). Subsequent references: Macquart 1834: 576 (descr.); Curtis 1837: 250 (Britain); Meigen 1838: 109 (descr.); Roser 1840: 54 (Germany, Württemberg); Schiner 1857: 382, 1861: 323, 1864: 103 (cit.); Gobert 1887: 73 (France). Syn. Verrall 1901a: 466, 1901b: 72.

Sphegina flava Macquart, 1834: 577. Type-loc.: France, Bordeaux. Type ♂ Macquart Coll., Lille (lost). Subsequent references: Meigen 1838: 109 (descr.); Schiner 1857: 382, 1861: 323, 1864: 103 (cit.); Gobert 1887: 73 (France). Syn. Verrall 1901a: 466, 1901b: 72.

nigra of: Zetterstedt 1843: 891, 1849: 3196, 1859: 6043 (Norway, Sweden); Siebke 1877: 74 (Norway); Strobl 1893: 160 (Austria); Morge 1974: 256 (Austria, material in Strobl Coll.).

Diagnosis: Body 7.0 mm, wing 6.9 mm, face yellow on ventral 1/2; front pollinose, with short pale pile; antenna black, with 3rd segment small, oval;

thorax black; mesonotum shiny medially, short yellow haired; pleuron pollinose; scutellum shiny, with 2 apical yellow bristles; front legs yellow, rarely partially dark basally; hind leg mainly black, with trochanter yellow, with femur yellow on basal 1/4 and narrowly on apex; with tibia yellow on basal 2/3 and narrowly medially; leg hair pale; wing hyaline; subcosta long, ending beyond r-m crossvein; last section of apical crossvein (M_{1+2}) approximately perpendicular to R_{4+5} ; alula narrow, about as wide as costa cell; abdomen mainly black, usually orange on basal 1/2 of 3rd tergum, yellow haired; 2nd tergum about 4 (4.0) as wide at base as apically and about 1 (1.3) time as long as wide basally; 4th sternum normal; male genitalia (Figs. 7, 8). Male and female similar.

Distribution (Fig. 32): Eire, Great Britain, Norway, Sweden, Finland, Denmark, France, Belgium, Netherlands, Luxemburg, Lichtenstein, Germany (West & East), Poland, Czechoslovakia, Switzerland, Austria, Hungary, Andorra, Spain, Corsica, Sicily, Italy, Yugoslavia, Romania, Bulgaria, U.S.S.R. (NW, W, C, E, SW European, Caucasia).

The types of *nigricornis* and *flava* Macquart are presumed to be destroyed. These types were part of Macquart's personal collection, which he left to the Museum at Lille. The Macquart Collection was left untended for about 60 years during which time it was extensively attacked by *Anthrenus* beetles. When the collection was recurated a list of its contents was prepared, but unfortunately the list didn't catalog specimens that were totally destroyed (Matile, *in litt.*) This list doesn't include *nigricornis* nor *flava*. The original description of *nigricornis* leaves little doubt that it is of *clunipes* Fallén. Unfortunately, the description of *flava* is of a teneral specimen, and thus no characters of specific importance are mentioned.

Sphegina cornifera Becker

Figs. 11, 12, 33, 35.

Sphegina cornifera Becker, 1921: 34. Type-loc.: Switzerland, Furka. Holotype ♂ Becker Coll., ZMB, Berlin. Subsequent references: Sack 1929: 121 (MG* descr., Alps); Stackelberg 1953: 381 (MG* key ref.), 1956a: 708 (key ref.); Goeldlin 1974: 163 (Switzerland); Aubert et al. 1976: 133 (Switzerland). erroneous references to *cornifera*: Szilady 1939: 139 (= *latifrons*); Goot 1969: 91 (Italy). *latifrons* (in part) of Strobl 1893: 160, 1910: 96 (Austria).

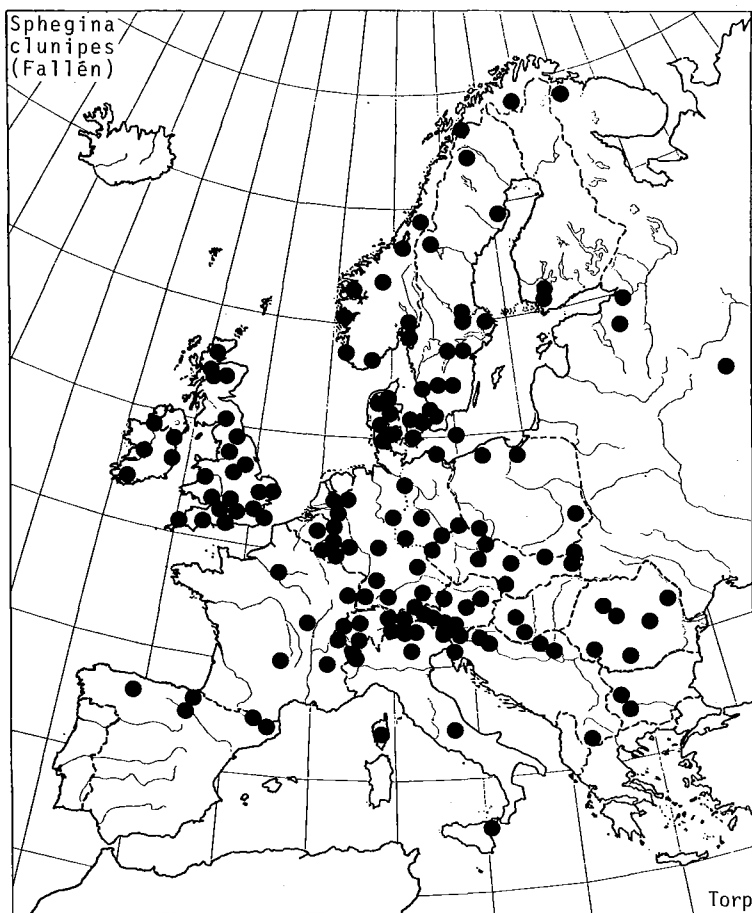


Fig. 32. *Sphegina clunipes* Fallén. Distribution map.

Diagnosis: Body 6.9–7.9 (7.4 average) mm, wing 5.1–6.1 (5.6 average) mm, face on ventral 1/2 and cheek yellow; front shiny except for a gray pollinose fascia on ventral 1/3, with short pale pile; antenna black, with 3rd segment medium sized, oval; thorax black; mesonotum shiny medially, short brownish yellow haired; pleuron pollinose; scutellum shiny, with 2 short apical yellow bristles; front legs yellow; hind leg mainly black, with coxa, trochanter yellow, with femur yellow on basal 1/2 and narrowly on apex; with tibia yellow on basal 1/4 and subapical 1/4; leg hair pale; wing hyaline, venation as in *clunipes*; abdomen (Fig. 33) black except narrowly brownish laterally on 3rd tergum, yellow haired; 2nd tergum about (1.1) as wide at base as apically and about 3 (3.1) times as long as wide basally; 4th sternum with

submedial tufts of yellow bristles on apical margin; surstyle elongate and not concealed under 4th sternum; male genitalia (Figs. 11, 12). Male and female similar.

Distribution (Fig. 35): Switzerland, Austria.

The holotype of *cornifera* Becker was examined and found to agree with the present concept of that name.

***Sphegina dogieli* Stackelberg**

Sphegina dogieli Stackelberg 1953: 379 (H* W*). Type-loc.: U.S.S.R., Kuban Prov., Kuban [European part of the Caucasian mountains]. Holotype ♂ ZIAS, Leningrad. Subsequent references: Stackelberg 1956a: 708 (key ref.), 1970: 43 (H* W* European



Figs. 33, 34. Apex of male abdomen of *Sphegina*, lateral view. — 33. *cornifera* Becker. — 34. *latifrons* Egger.

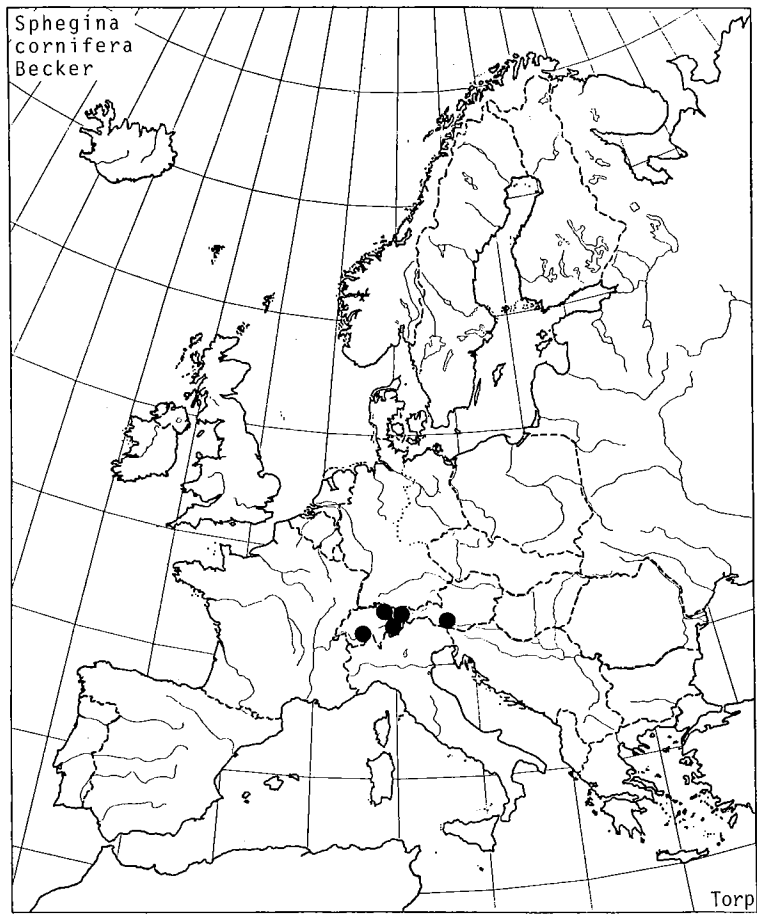


Fig. 35. *Sphegina cornifera* Becker. Distribution map.

U.S.S.R.); Goot 1981: 125 (W*, H*, European USSR).

Diagnosis: Body 6.0 mm, face black; front gray pollinose, approximately 1/5 head width, with short pale pile; antenna black, with 3rd segment moderately large, oval; thorax black, shiny; mesonotum shiny, short brownish-yellow haired; pleuron gray pollinose; wing brownish; front legs black, except yellow on base and apices of femora and tibiae, white on basal 2 tarsomeres of fore tarsus; hind leg black except yellow basal 1/3 of tibia; leg hair pale; wing hyaline, venation as in *clunipes*; abdomen black, moderately long and slender. Female unknown.

Distribution: U.S.S.R. (Caucasia).

Sphegina dogieli is known only from the holotype collected by Volukhin in the European part of the Caucasus Mountains (Province Kuban) on 14 May 1911. The diagnosis given here is adapted from the original description.

Sphegina elegans Schummel

Figs. 1, 9, 10, 28, 36.

Sphegina elegans Schummel, 1843: 167. Type-loc.: Silesia. Holotype ♀ Schummel Coll., NMW, Vienna (lost). Subsequent references: Zeller 1843: 304 (cit.); Schiner 1857: 382, 1861: 323, 1864: 103 (cit.); Kittel & Kriechbaumer 1872: 75 (Germany, Bavaria).

Sphegina kimakowiczi Strobl, 1897: 39. Type-loc.: Romania, Transsylvania, "Gotzenberg". Lectotype ♂ Strobl Coll., Admont. Subsequent references: Strobl 1898: 222 (syn.), 1910: 96 (descr. note, Austria); Thalhammer 1899: 37 (Hungary); Verrall 1901a: 466 (syn. note), 1901b: 72 (cat. cit.); Kertész 1910: 172 (cat. cit.); Becker 1921: 34 (descr. note); Collin 1937: 184 (H* MG* Britain); Hellén 1941: 74 (Finland); Frey 1941: 13 (Finland); Kloet & Hincks 1945: 280 (Britain); Audcent 1950: 132 (England, Bristol); Coe 1953: 52 (H* MG* Britain), 1956: 90 (Yugoslavia); Stackelberg 1953: 385 (H* MG* key ref.), 1956a: 710 (key ref.), 1958: 229 (U.S.S.R., Leningrad Obl.), 1970: 46 (H* MG* European U.S.S.R.); Parmenter 1954: 140 (British Isles); Glumac 1957: 49, 1972: 13 (Yugoslavia); Goot 1958: 95 (France, Pyrenees); Trojanowa-Bañkowska 1959: 148 (MG* tax. note, syn., Poland); Séguy 1961: 51 (Western Europe); Hartley 1961: 540 (Larva* descr.); Hogendijk 1961: 58 (Netherlands); Bañkowska 1963: 207 (H* MG* W* ♀ sterna* Poland), 1964: 313 (Poland, Sudetic Mts.), 1967: 385 (W* MG* descr. note, Bulgaria), 1971: 463, 1976: 89, 1980: 89 (Poland); Lucas 1964: 229, 1965: 183, 1969: 204 (Netherlands); Goot & Lucas 1964: 8 (descr. notes, Netherlands); Anikina 1966: 146 (USSR, Ukrainian Transcarpa-

thia); Andersson 1966: 182 (Sweden); Lehrer & Lehrer 1967: 17 (Romania); Lambeck 1968: 99 (Yugoslavia, Slovenia); Torp Pedersen 1968: 134 (W* MG* A* Denmark), 1973: 30 (Denmark); Brădescu 1971: 39, 1972a: 151 (Romania); Goeldlin 1974: 163 (Switzerland); Norge 1974: 256 (material in Strobl Coll.); Payne 1974: 92 (England, Essex); Speight et al. 1975: 73 (Ireland); Smith 1976: 66 (Britain); Rotheray 1979: 36 (England, Staffordshire); Claussen 1980: 21, 57 (Germany, Schleswig; flower recs.); Hackman 1980: 123 (Finland); Goot 1981: 128 (H*, MG*, Netherlands, Europe) **syn.n.**

Sphegina germanica Becker, 1921: 35. Type-loc.: Germany, Bad Wildungen. Lectotype ♂ Becker Coll., ZMB, Berlin. Subsequent references: Sack 1929: 121 (descr., Germany), 1930: 47 (descr., Germany); Karl 1935: 251 (Pomerania); Kröber 1958: 71 (Germany, Hamburg); Suster 1959: 111 (key ref.); Röder 1980: 38 (Germany, flower records). Syn. Collin 1937: 184; Trojanowa-Bañkowska 1959: 148; Bañkowska 1963: 26; Stackelberg 1964: 472; Hellén 1940: 74.

Sphegina tenuissima Szilady, 1939: 140. Type-locs.: Romania, Transylvanian Alps: Reg. Banat, Mehadia; Reg. Cluj, Ilva Mare (=Nagy Ilva); Reg. Crisana, Meziad; Reg. Hunedoara, Presaca (Preszaka). Syntypes ♂ ♀ UNMB, Budapest (destroyed). Syn. Stackelberg 1953: 385; Lehrer & Lehrer 1967: 3.

clunipes of: Meigen 1822: 194 (descr., Germany); Lepeletier & Serville 1825: 453 (descr., France) *in*: Latreille et al. 1825-28; Macquart 1829: 165 (descr., northern France), 1834: 576 (descr.); Zetterstedt 1838: 581, 1843: 891, 1849: 3196 (Norway, Sweden); Glumac 1958: 103 (MG* Yugoslavia); Morge 1975: 406, pl. 70 (Meigen's color figurc).

Diagnosis: Habitus (Fig. 1); body 7.0 mm, wing 4.9 mm, face on ventral 1/2 and cheek yellow; front pollinose, with short pale pile; vertex subshiny; antenna black, except brownish 3rd segment, with 3rd segment large, trapezoid; thorax mainly black; prothorax including humerus yellow; mesonotum shiny medially, short yellow haired; pleuron pollinose; metasternum frequently yellow; scutellum shiny, with 2 apical yellow bristles; front legs yellow; hind leg mainly black, with coxa, trochanter yellow, with femur yellow on basal 1/3 and narrowly on apex; with tibia yellow on basal 2/3, with tarsus brownish; leg hair pale; wing (Fig. 28); abdomen black except brownish orange on basal 2/3 of 3rd and basal 1/2 of 4th terga, yellow haired; 2nd tergum about (1.1) as wide at base as apically and about 4 (4.0) times as long as wide basally; 4th sternum normal; male genitalia (Figs. 9, 10). Male and female similar.

Distribution (Fig. 36): Eire, England, Norway, Sweden, Finland, Denmark, France, Belgium, Netherlands, Luxembourg, Germany (West), Poland, Czechoslova-

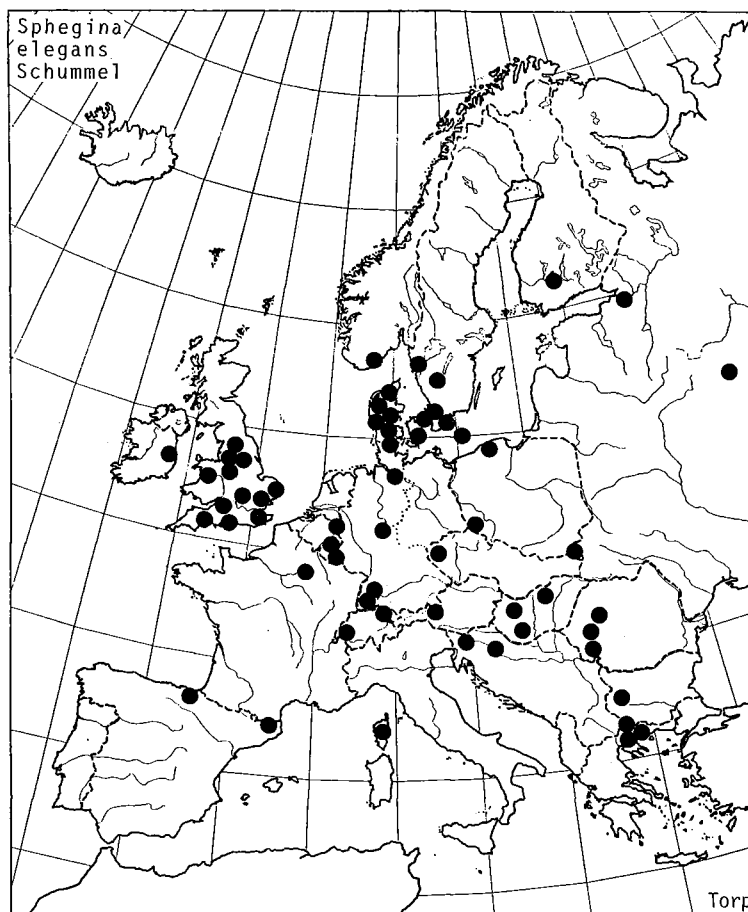


Fig. 36. *Sphegina elegans* Schummel. Distribution map.

Switzerland, Austria, Hungary, Spain, Yugoslavia, Romania, Bulgaria, U.S.S.R. (NW, SW European, Caucasia), Greece.

The holotype of *elegans* is assumed to be lost. Schummel's collection was damaged by insects, with the remains being auctioned off in 1849 (Horn & Kahle 1936: 251). Schiner (1857: 280) acquired Schummel's Diptera, but not the type of *elegans* as he stated that he didn't know the species (1861:323). Thus, we assume it was destroyed by insects. Despite the loss of the type of *elegans*, there can be no doubt of the identity of this species. Schummel mentions all the critical characters (face yellow below, antenna yellowish brown, humerus pale reddish yellow and notopleuron brownish). *Sphegina kimakowiczi* Strobl was

described from two males and one female. We have studied 2 males doubled mounted on the same pin and next to a Strobl label ("Spheg. Kima/kowiczi m. / ♂ 96 29/7 / Transsylv. / Strobl"). We dissected one of the males, which we designate lectotype and have so labeled it, and find it in agreement with *elegans* Schummel. *Sphegina germanica* Becker was described from 4 males, one of which we designate lectotype. The lectotype is a male specimen of *elegans* and has the following labels "Wildungen / 54191. VII", "Sammlung / Dr. Th. Becker", "Typus", "germanica / Beck", "Sphegina '59. / kimakowiczi Str. / Stackelberg det.". We are unsure of the location, "Wildungen," but assume that it is a locality in "Germany" as that is what Becker's specific name implies.

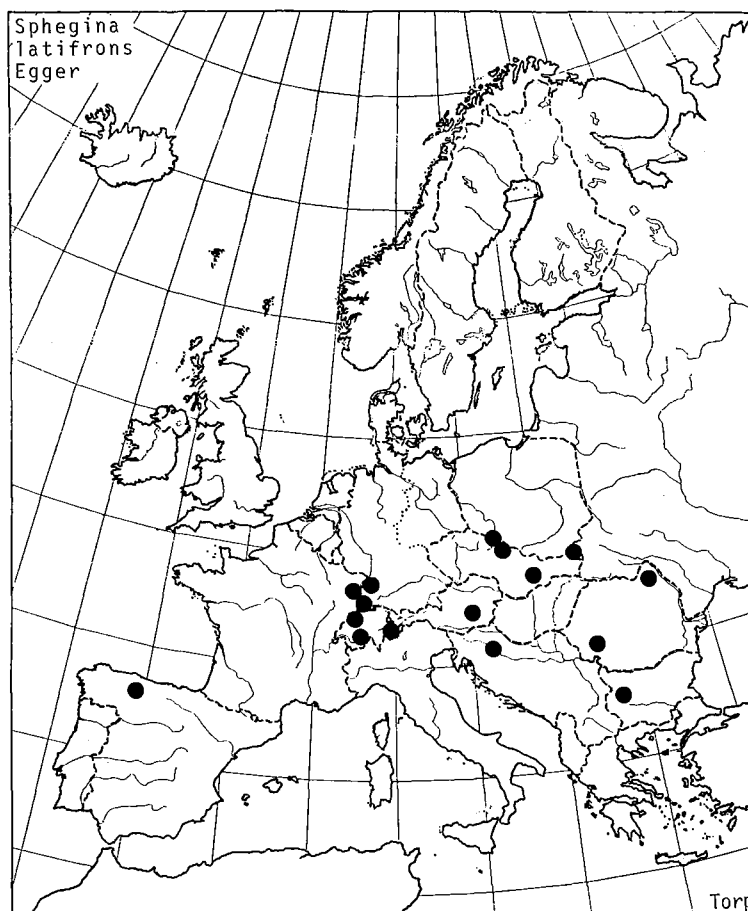


Fig. 37. *Sphegina latifrons* Egger. Distribution map.

Sphegina elegans is readily distinguished from all other European *Sphegina* by its pale face and humerus, and basal r-m crossvein, before the ending of the subcosta.

Sphegina latifrons Egger

Figs. 13, 14, 34, 37.

Sphegina latifrons Egger, 1865: 294. Type-loc.: Austria.

Lectotype ♂ NMW, Vienna. Subsequent references: Strobl 1893: 160, 1910: 96 (Austria); Verrall 1901a: 466 (note), 1901b: 72 (cat. cit.); Kertész 1907: 173 (cat. cit.); Becker 1921: 34 (A* descr. note); Sack 1929: 122 (A* descr., Central Europe), 1930: 46 (A* descr., Germany); Stackelberg 1953: 380 (MG* key ref.), 1956a: 708 (key ref.), 1970: 44 (MG* European USSR), Suster 1959: 112 (descr., Romania); Séguy 1961: 51 (Austria); Bańkowska 1963: 207 (MG* Poland), 1967: 384 (H* MG* descr., Bulgaria), 1971:

463, 1976:89, 1980: 89 (Poland); Anikina 1966: 146 (USSR, Ukrainian Transcarpathia); Lehrer & Lehrer 1967: 17 (Romania); Brădescu 1972: 151, 1977: 35 (Romania); Goeldlin 1974: 163 (Switzerland); Morge 1974: 256 (material in Strobl Coll.); Röder 1980: 38 (Germany, flower records); Goot 1981: 128 (Ab*, Poland, Germany, Europe).

erroneous references to *latifrons* (in part): Strobl 1893, 1910 (= *cornifera*).

cornifera of Szilády 1939: 139 (descr. note, Hungary, Romania); Goot 1969: 91 (Italy).

Diagnosis: Body 6.6 mm, wing 5.5 mm, face on ventral 1/2 and cheek yellow; front shiny except for a gray pollinose fascia on ventral 1/3, with short pale pile; antenna black, with 3rd segment large, oval; thorax black; mesonotum shiny medially, short yellow haired; pleuron pollinose; scutellum shiny, with 2 apical yellow bristles;

front legs yellow except brownish on apical tarsomeres; hind leg mainly black, with coxa, trochanter yellow, with femur yellow on basal 1/2 and narrowly on apex; with tibia yellow on basal 1/4 and subapical 1/4; leg hair pale; wing hyaline, venation as in *clunipes*; abdomen (Fig. 34) black except brownish orange basolaterally on 3rd and laterally on 4th terga, yellow haired, 2nd tergum about 2 times (1.7) as wide at base as apically and about 3 (3.2) times as long as wide basally; 3rd sternum with 2 submedial patches of black spinules at basal 1/3, frequently membranous on apical 2/3; 4th sternum with medial tuft of black spinules on basal 1/4, strongly produced ventral on apical 1/3 with submedial tufts of yellow bristles on apical margin; surstyle elongate, not concealed under 4th sternum; male genitalia (Figs. 13, 14). Male and female similar.

Distribution (Fig. 37): Germany (West), Poland, Czechoslovakia, France, Spain, Switzerland, Austria, Italy, Yugoslavia, Romania, Bulgaria, U.S.S.R. (SW European).

Sphegina latifrons Egger was described from an unspecified number of males and females. Egger simply referred to the species as an alpine animal which was not rare. In the Naturhistorisches Museum Wien, there are 2 males and 1 female determined as *latifrons* by Egger. The male labelled as "Coll. Egger / Austria", "latifrons / det. Egger" is here designed lectotype and has been so labelled.

Sphegina limbipennis Strobl

Figs. 15, 16, 29, 38.

Sphegina limbipennis Strobl, in: Czerny & Strobl 1909: 195. Type-loc.: Spain, Sierra Nevada, Oberes Genital. Holotype ♀ Strobl Coll., Admont (lost?). Subsequent references: Becker 1921: 35 (descr. note, Pyrenees); Sack 1929: 122 (descr., Pyrenees); Gil Collado 1930: 185 (Spain); Stackelberg 1953: 376, 1956: 706 (key ref.); Séguy 1961: 51 (Pyrenees); Torp Pedersen 1971: 241 (Spain).

Diagnosis: Body 4.4 mm, wing 3.6 mm, face on ventral 1/2 and cheek yellow; front pollinose, with short pale pile, antenna blackish brown, with 3rd segment large, oval; thorax black; mesonotum pollinose, short yellow haired; pleuron pollinose; scutellum pollinose, with 2 short apical yellow bristles; front legs yellow except brownish on apical two tarsomeres; hind leg mainly brown, with coxa, trochanter yellow, with femur yellow on

basal 1/3 and narrowly on apex; with tibia yellow on basal 1/4 and narrowly medially; leg hair pale; wing hyaline except apex brown (Fig. 29), venation and alula as in *clunipes*; abdomen blackish brown, yellow haired; 2nd tergum about (1.3) as wide at base as apically and about 3 (2.9) times as long as wide basally; 4th sternum normal; male genitalia (Figs. 15, 16). Male and female similar except 3rd antennal segment smaller, face entirely dark.

Distribution (Fig. 38): France, Spain.

The type of *limbipennis* Strobl is apparently lost. The type was collected by Czerny, but is not now in his collection which was deposited in the Naturhistorisches Museum Wien, nor is the type in the Strobl Collection (Morge *in litt.*). However, the species is distinctive and easily recognized from the original description.

Sphegina montana Becker

Figs. 17, 18, 39.

Sphegina montana Becker, 1921: 35. Type-loc.: Austria, Admont. Holotype ♀ Becker Coll., ZMHU, Berlin. Subsequent references: Sack 1929: 122 (descr., Alps); Drenski 1934: 115 (Bulgaria); Goeldlin 1974: 163 (Switzerland).

Sphegina eoa Stackelberg, 1953: 384 (H* W* MG*). Type-loc.: U.S.S.R., Siberia, Irkutskaya Oblast, Pribykal'e, River Kitoy opposite mouth of River Kitoykina. Lectotype ♂ ZIAS, Leningrad. Subsequent references: Stackelberg 1956a: 709 (key ref.) **syn.n.**

Sphegina fuliginosa Goeldlin, 1974: 240. Type-loc.: Switzerland, Vaud., Jorat, 800 m. Holotype ♂ MZ, Lausanne **syn.n.**

nigra of Schummel 1843: 167 (Wolfelsgrunder Thale am Schneeberg); Zeller 1843: 304 (descr., Silesia).

verecunda of Frey 1941: 13 (Finland).

violovitshi of Hackman 1970: 133, 1980: 123 (Finland); Brădescu 1972: 152 (Romania).

Diagnosis: Body 5.5 mm, wing 4.4 mm, face dark; front pollinose, with long dark pile; antenna black, with 3rd segment small, oval; thorax black; mesonotum shiny medially, short black haired; pleuron partly pollinose; sternopleuron shiny; scutellum shiny, with 2 apical yellow bristles; front legs mainly brownish black, except black apical tarsomeres, and brown medially on femora and tibiae; hind leg mainly black except yellowish brown on trochanter and femoral base and femo-

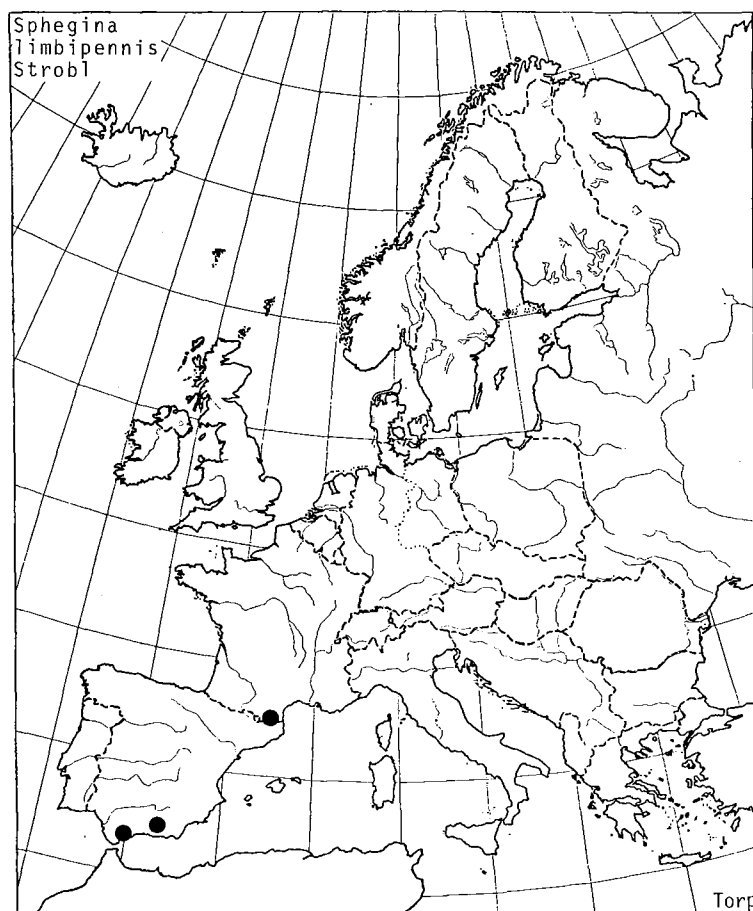


Fig. 38. *Sphegina limbipennis* Strobl. Distribution map.

ral-tibial joint; leg hair pale; wing hyaline, venation as in *clunipes* except sc ending at level of r-m crossvein; abdomen black, black haired; 2nd tergum about (1.1) as wide at base as apically and about 2 (2.4) times as long as wide basally; frequently with indistinct brown maculae on 3rd tergum; 4th sternum normal; male genitalia (Figs. 17, 18). Male and female similar except front legs usually yellow except for black apical tarsomeres; front, mesonotum and abdomen more extensively yellow pilose; and 3rd tergum with dark reddish submedial maculae on basal 1/3.

Distribution (Fig. 39): Finland, Poland, Czechoslovakia, Germany (West), Switzerland, Austria, Romania, U.S.S.R. (Baikal & Maritime areas).

The holotype of *montana* Becker was examined and found to agree with the present concept of that name. The holotype bears a 1959 Stackelberg determination label which identifies it as “?violovitshi St.”. *Sphegina violovitshi* and *eo*a Stackelberg are very similar and most readily distinguished by the male genitalia (Violovitsh 1980: 109). Why Stackelberg tentatively identified *montana* as *violovitshi*, a species which occurs in the Russian Far East and Japan, rather than with *eo*a, which occurs in western Siberia, is curious. Males found associated with females of *montana* and assumed to be of that species agree with *eo*a Stackelberg. Apparently on the basis of Stackelberg's determination of *montana*, the name *violo-*

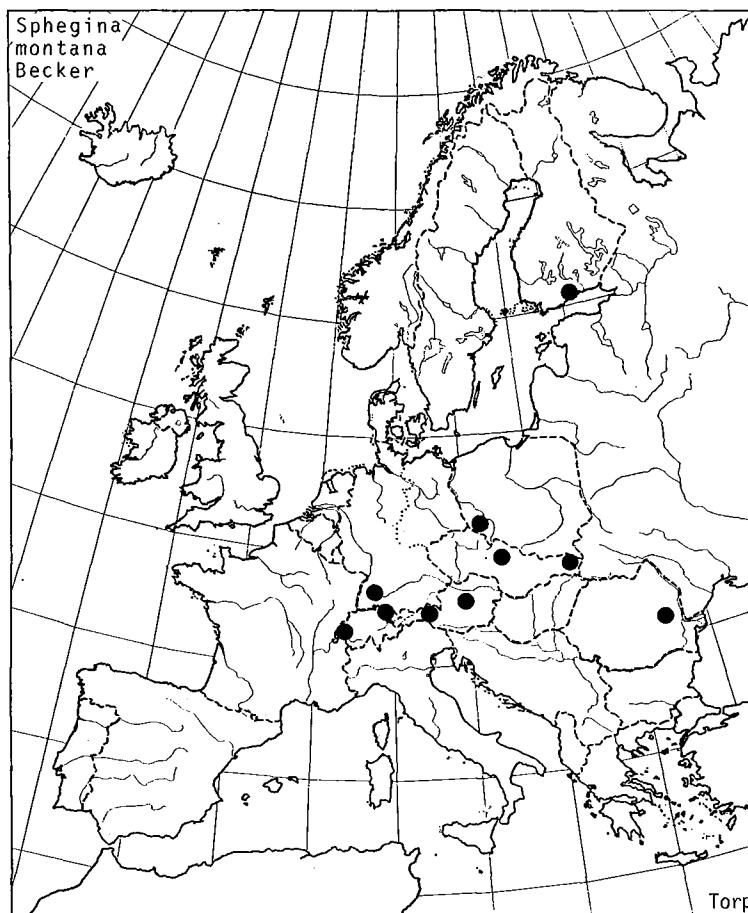


Fig. 39. *Sphegina montana* Becker. Distribution map.

vitshi was introduced in the European syrphid literature. Goeldlin (*in litt.*) wrote us that his *fuliginosa* was the same as *violovitshi*, but accepted our identification when we informed him of the confusion with *eo*a Stackelberg (Lucas (*in litt.*) also concurs).

When Stackelberg described *eo*a he designated a type male and a type female. We here designate his type male as lectotype.

The identity of *nigra* of Schummel and Zeller is uncertain, but, on the basis of Zeller's emphasis on the infusate wings and his mention of brown maculae on the abdomen, we assign their usage of *nigra* to *montana* Becker.

The facial color of *montana* is variable, varying from partially yellow to entirely black. *Sphegina*

montana is readily distinguished from all European *Sphegina* by the shiny sternopleuron and presence of a 1st abdominal sternum.

Sphegina negrobovi Skufjin

Sphegina negrobovi Skufjin, 1976: 931 (MG*H*W*).
Type-loc.: U.S.S.R., Northern Caucasia, River Bezinjannaja at foot of Mount Tibga. Holotype ♂ ZIAS, Leningrad.

Diagnosis: Body 7 mm, face dark; front pollinose, with short pale pile; antenna black, except narrowly reddish on base of 3rd segment, with 3rd segment small, oval; thorax black; mesonotum shiny medially, short yellow haired; pleuron pollinose; scutellum shiny, with 2 apical yellow bris-

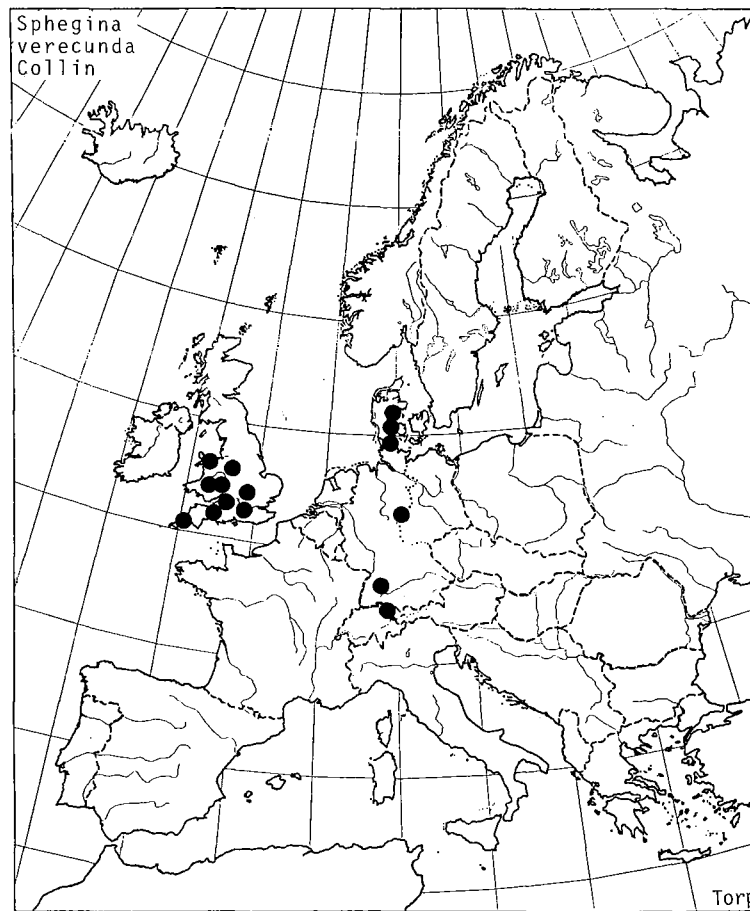


Fig. 40. *Sphegina verecunda* Collin. Distribution map.

gles; legs black except yellow knees and tibial bases and brownish basal tarsomeres of front legs; hind femur greatly thickened, with long yellow hair posteriorly; abdomen moderately elongate and narrow, black except with broad yellowish brown fascia on base on 3rd tergum. Female unknown.

Distribution: U.S.S.R. (Caucasia).

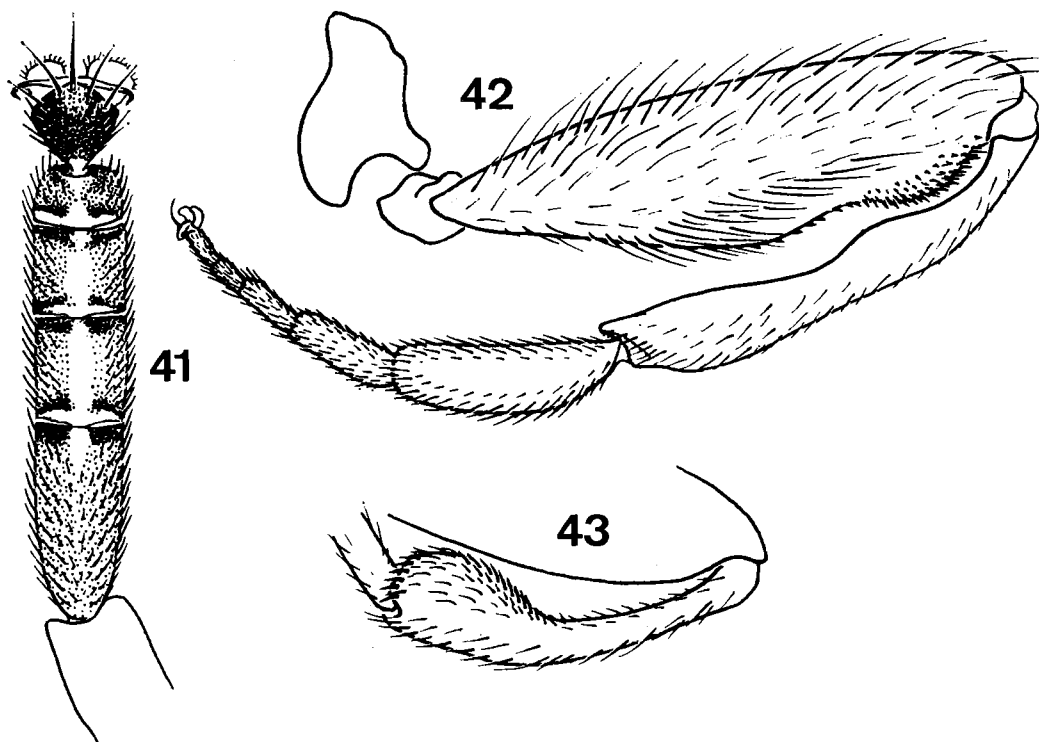
Sphegina negrobovi Skufjin is known only from the holotype. The diagnosis given here is adapted from the original description. The facial profile and leg color characters used by Skufjin to separate his species from *spheginea* Zetterstedt do not work.

***Sphegina verecunda* Collin**

Figs. 25, 26, 40.

Sphegina verecunda Collin, 1937: 184. Type-loc.: England, Herefordshire, West Grossmont. Lectotype ♂ Collin Coll., UMO, Oxford. Subsequent references: Kloet & Hincks 1945: 380 (Britain); Coe 1953: 52 (H* MG* Britain); Parmenter 1954: 140 (British Isles); Séguy 1961: 51 (England); Hartley 1961: 540 (Larva*, descr.); Bańkowska 1963: 207 (H* MG*), 1971: 464, 1976: 89, 1980: 89 (Poland); Torp Pedersen 1968: 134 (W* MG* A* Denmark), 1973: 30, 41 (Denmark); Stackelberg 1970: 44 (H* MG* European USSR); Lucas 1974: 53 (Netherlands); Speight et al. 1975: 29 (Wales); Smith 1976: 66 (Britain); Claussen 1980: 21, 57 (Germany, Schleswig; flower recs.); Goot 1981: 128 (H*, MG*, Netherlands, Europe); Thompson 1981: 473, 477 (syn.).

verrecunda of: Stackelberg 1953: 384 (H* MG* key



Figs. 41–43. *Sphegina platychira* Szilády. — 41. Front tarsus. — 42. Hind leg. — 43. Middle tibia. (After Stackelberg 1963).

ref.), 1956a: 709 (key ref.).
nigra of: Stephens 1829: 281 (Britain); Curtis 1831: 217, 1837: 250 (Britain).
 erroneous reference to *verecunda*: Frey 1941 (= *montana*); Lambeck 1968, Lucas 1974, Goeldlin 1974, & Goot 1981 (in part) (= *clavata*).

Diagnosis: Body 4.9–5.1 mm, wing 3.9–4.2 mm, face dark; front pollinose on ventral 2/3, shiny on dorsal 1/3, with short pale pile; antenna brownish black, with 3rd segment small, oval; thorax black; mesonotum shiny medially, short yellow haired; pleuron pollinose; scutellum shiny, with 2 apical yellow bristles; front legs yellow; hind leg mainly black, with coxa, trochanter yellow, with femur yellow on basal 1/3 and narrowly on apex, with tibia yellow on basal 1/4 and narrowly medially; leg hair pale except black on apical tarsomere; wing hyaline, venation as in *clunipes*; abdomen brownish black, usually broadly orange on basal 1/2 of 2nd, 3rd and 4th terga, rarely all dark, yellow haired; 2nd tergum about (1.2) as wide at base

as apically and about 3 (3.4) times as long as wide basally; 4th sternum normal; male genitalia (Figs. 25, 26). Male and female similar.

Distribution (Fig. 40): England, Denmark, Germany (West), Poland?, U.S.S.R. (NW European).

Sphegina verecunda Collin was described from 2 males and 1 female. The dissected male labeled "W. Grossmont, 14.8.34" is here designated the lectotype and has been so labeled.

The records of *verecunda* from Poland and European U.S.S.R. need to be verified as they may refer to *clavata* Scopoli.

***Sphegina platychira* Szilády**

Figs. 19, 20, 41–44.

Sphegina platychira Szilády, 1937: 92. Type-loc.: U.S.S.R., Eastern Carpathian Mountains, Körösmező (=Jasina). Holotype ♂ UNMB, Budapest (destroyed). Subsequent references: Stackelberg

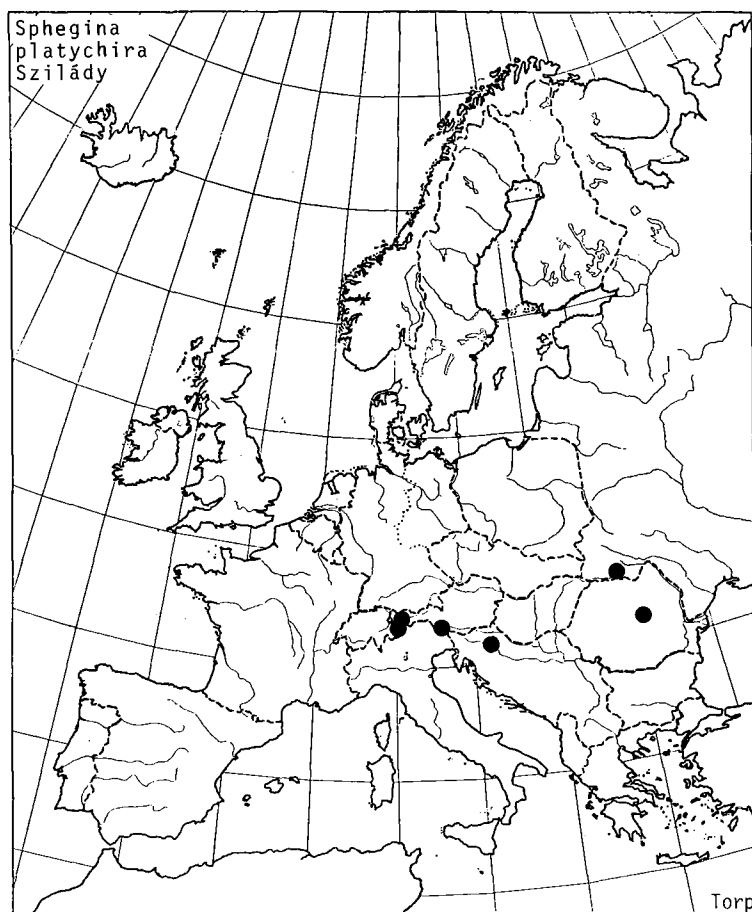


Fig. 44. *Sphegina platychira* Szilady. Distribution map.

1970: 43 (legs* European USSR); Brădescu 1979: 294 (Romania); Goot 1981: 128 (Legs*, eastern Europe).
Sphegina lindneriana Stackelberg, 1963: 1 (W* legs*).
 Type-loc.: U.S.S.R., Carpathian Mountains, Zakarpatskaja District, Environs of Rjachowo, Kamenetzkij, Potok. Holotype ♂ ZIAS, Leningrad. Syn. Stackelberg 1964: 472.

Diagnosis: Body 7.8 mm, wing 5.9 mm, face dark; front pollinose, with short pile; antenna black, except narrowly reddish on base of 3rd segment, 3rd segment small, oval; thorax black; mesonotum shiny medially, short yellow haired; pleuron pollinose; scutellum shiny, with 2 apical yellow bristles; front leg yellow except black on apex of tarsomeres and all of last tarsomere, with tarsus flattened (Fig. 41); middle leg yellow except brownish on coxa and dark brown on apical 4 tar-

someres, with tibia greatly enlarged on apical 1/3 (Fig. 43), with apical comb of black spinules on tibia; hind leg black except reddish on femoral base and femoral-tibial joint, with femur sinuate ventrally (Fig. 42); leg hair pale; wing hyaline, venation as in *clunipes*; abdomen black except brownish basolaterally on 3rd tergum, yellow haired; 2nd tergum about (1.2) as wide at base as apically and about 3 (2.7) times as long as wide basally; 4th sternum normal; male genitalia (Figs. 19, 20). Female similar to male except the leg modifications are not as great.

Distribution (Fig. 44): Switzerland, Austria, Yugoslavia, Romania, USSR (Ukraine).

Sphegina platychira is undoubtedly more widespread than the present records show. The type of

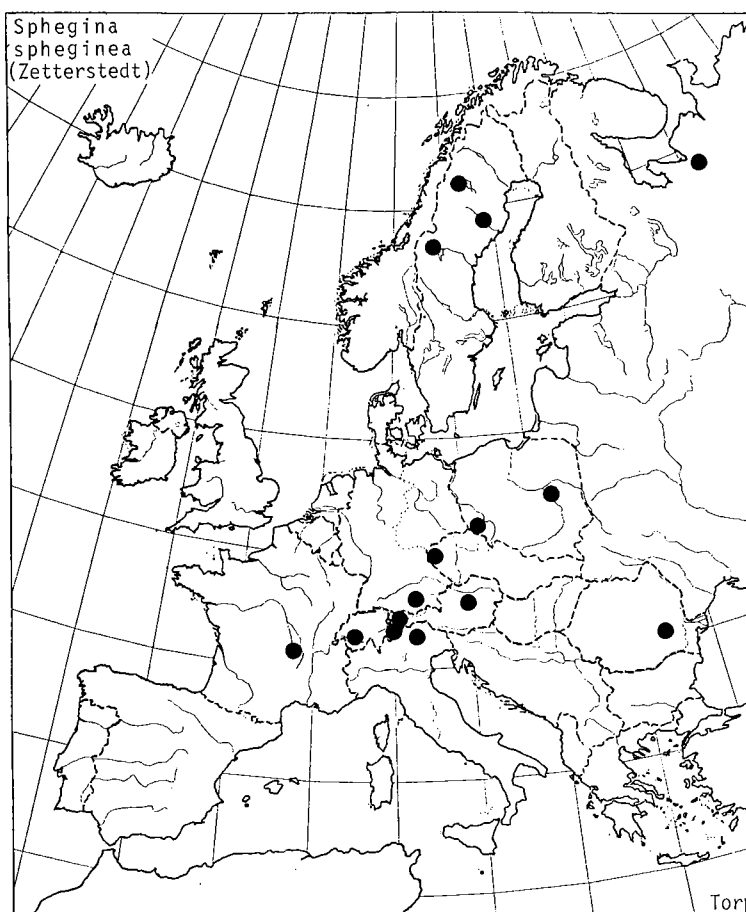


Fig. 45. *Sphegina spheginea* Zetterstedt. Distribution map.

platychira was destroyed when the Diptera collection of the Budapest museum burned. However, the species is distinctive and easily recognized on the basis of the original description.

Sphegina spheginea (Zetterstedt)

Figs. 21, 22, 30, 45.

Ascia spheginea Zetterstedt, 1838: 582. Type-loc.: Sweden, Lapponia Umens Meridionali, Lycksele. Lectotype ♂ Zetterstedt Coll., ZI, Lund.

Sphegina spheginea: Kertész 1910: 173 (cat. cit.); Frey 1918: 14 (descr., USSR (Archangel)); Sack 1929: 123 (A* descr., C & N Europe), 1930: 46 (A* descr., Germany); Trojanowa 1953: 457 (Poland); Stackelberg 1953: 380 (H* W* key ref.), 1956a: 708 (key ref.), 1970: 43 (H* W* European USSR); Suster 1959: 111 (descr., Romania); Séguy 1961: 51 (France); Bań-

kowska 1963: 207 (H* Poland); Andersson 1966: 180 (Lectotype design., Sweden); Lehrer & Lehrer 1967: 17 (Romania); Brădescu 1971: 40, 1972a: 151, 1977: 35 (Romania); Goeldlin 1974: 163 (Switzerland); Hackman 1980: 123 (Finland); Goot 1981: 125 (H*, W*, Poland, Germany).

erroneous reference to *spheginea*: Kröber 1949: 81 (= *Neosascia podagrica* (Fabricius) vide Claussen *in litt.*).

Sphegina Loewii Zeller, 1843: 305. Type-loc.: Poland, Silesia, "Weistrizthal near Reinerz". Holotype ♀ Osten Sacken Coll., ZIAS, Leningrad (lost?). Subsequent references: Schiner 1857: 382, 1861: 323, 1864: 103 (cit.); Tief 1888: iii (Carinthia); Schoch 1889: 35 (Switzerland); Verrall 1901a: 466 (syn. note), 1901b: 72 (cat. cit.); Kertész 1910: 173 (cat. cit.); Becker 1921: 36 (descr. note) **syn. n.**

Sphegina Zetterstedti Schiner, 1857: 382. Unjustified new name for *Ascia spheginea* Zetterstedt. Subsequent references: Schiner 1861: 323, 1864: 103 (cit.); Kowarz 1885: 105, 133 (diff. *clunipes* Fallén,

Bohemia), 1894: 17 (cat. cit.); Verrall 1901a: 466 (syn. note), 1901b: 72 (cat. cit.); Wahlgren 1909: 57 (Sweden); Becker 1921: 36 (descr. note); Morge 1974: 256 (as "*nigripes* m. *zetterstedti* Schiner", material in Strobl Coll.).

Sphegina zetterstedtii var. *rufiventris* Strobl, 1910: 96 (preocc. Loew, 1863). Type-loc.: Austria, Steiermark, Admont, Stiftsgarten. Lectotype ♂ Strobl Coll., Admont. Subsequent references: Morge 1974: 256 (material in Strobl Coll., as "*luteiventris*").

Sphegina rubripes Becker, 1921: 35. Type-loc.: Sweden, [Jämtland], Mörsil. Holotype ♀ Becker Coll., ZMHU, Berlin. Subsequent references: Sack 1929: 122 (descr., North Europe); Stackelberg 1953: 386 (Russian transl. orig. descr.) **syn. n.**

Sphegina zetterstedti var. *sanguinea* Becker, 1921: 36 (A*). Type-loc.: Poland, Silesia, "Wolfelsfall". Holotype ♀ Becker Coll., ZMHU, Berlin.

nigricornis of: Zetterstedt 1843: 892, 1849: 3196, 1859: 6043 (descr., Sweden).

Diagnosis: Body 7.4–7.7 (7.6 average) mm, wing 6.5–7.2 (6.7 average) mm, face dark; front pollinose on ventral 1/2, shiny dorsally, with long dark pile; antenna black, with 3rd segment small, oval; thorax black; mesonotum shiny medially, yellow to black haired; pleuron pollinose; scutellum shiny, with 4–6 apical black bristles; legs dark, black except yellow tibial bases; leg hair pale except some black hair apically on hind femur; wing (Fig. 30); abdomen black, yellow haired; 2nd tergum about as wide at base as apically and slightly (1.2) longer than wide basally; 4th sternum normal; male genitalia (Figs. 21, 22). Male and female similar.

Distribution (Fig. 45): Sweden, Poland, Czechoslovakia, France, Germany (West), Switzerland, Austria, Italy, Romania, U.S.S.R. (N. European, Caucasia, Siberia).

We examined the lectotype of *spheginea* Zetterstedt and found it to be of the present concept. *Sphegina zetterstedti* variety *rufiventris* Strobl was described from one male and three females. We designate as lectotype a male labeled "Sph. nr n. sp. / Admont / pow [illegible] 14/6 ♂" and have so labeled it. We also examined the holotype of *rubripes* Becker and determined it to be teneral specimen of *spheginea*. The type of variety *sanguinea* Becker could not be found by Dr. Schumann and is presumed to be lost.

The status of *loewii* Zeller has not been definitely settled. All authors (Schiner, Verrall and Kertész) prior to Becker listed it as a valid name, but considered the species dubious. Becker

(1921) suggested that the name was probably a synonym of *spheginea* (also Stackelberg 1953: 380). *Sphegina loewii* was described from a unique female collected in what is present day Poland. The holotype should be in the Zeller Collection, the "remains" of which was bought by Osten Sacken (1903: 9). However, Osten Sacken (1903: 140) also noted that Zeller gave much material to Herman Loew. The curators of Zoologisches Museum, Berlin (Loew Collection) and Zoological Institute, Leningrad (Osten Sacken Collection) have written that the type is not in their care. Thus, the type is presumed to be lost. The name can, however, be unequivocally identified from its original description. Zeller mentioned 4 characters which restrict his name to *spheginea*: 1) entirely black hind leg; 2) black face; 3) apical crossvein oblique; and 4) broad, short, and only slightly constricted 2nd abdominal segment.

Subgenus *Asiosphegina* Stackelberg

Sphegina, subgenus *Asiosphegina* Stackelberg, 1974: 446 (1953: 376). Type-species, *Sphegina sibirica* Stackelberg (Stackelberg 1974: 446). The name *Asiosphegina* is available from 1974 when Stackelberg designated a type-species, not 1953 when he described the subgenus.

Asiosphegina is recognized, even though this action may leave *Sphegina* proper as a paraphyletic group, because it is distinctive and therefore useful.

Sphegina sibirica Stackelberg

Figs. 23, 24, 46.

Sphegina sibirica Stackelberg, 1953: 377 (A* W* MG*). Type-loc.: U.S.S.R., Siberia, Southern Primorje, Sutanskogo Region, Tigrovaja. Lectotype ♂ ZIAS, Leningrad. Subsequent references: Stackelberg 1956: 708 (key ref.), 1970: 43 (A* MG* W* European USSR); Hackman 1970: 133, 1980: 123 (Finland); Hippa 1972: 188 (MG* Finland); Nielsen 1972: 64 (Norway); Brădescu 1972a: 152 (Romania); Goot 1981: 125 (Ab*, MG*, W*, Europe).

freyana of: Brădescu 1972: 152 (Romania).

Diagnosis: Body 7.4 mm, wing 5.1 mm, face dark; front shiny except for gray pollinose fascia on subventral 1/4, with short pale pile; antenna black, except narrowly reddish on base of arista, with 3rd segment small, oval; thorax black; mesono-

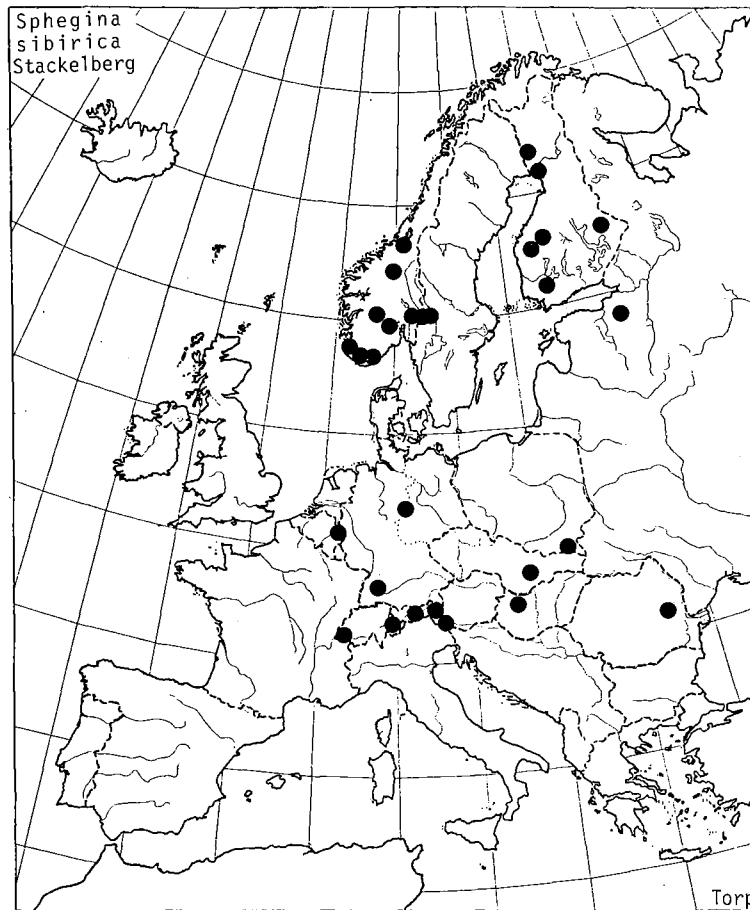


Fig. 46. *Sphegina sibirica* Stackelberg. Distribution map.

tum shiny medially, pollinose laterally (may have narrow submedial pollinose vittae), short black haired except yellow haired laterally; pleuron partly pollinose; sternopleuron shiny; scutellum shiny with 2 apical yellow bristles; front legs yellow except black apical 2 tarsomeres; hind leg mainly black, hind femur yellow on basal 1/4; hind tibia yellow on basal 2/3; hind tarsus brownish basomere, brownish yellow on next 2 tarsomeres, black on apical 2 tarsomeres; leg hair pale on pale areas, black elsewhere; wing hyaline, venation as in *clunipes*; abdomen black, yellow haired laterally, black haired medially; 2nd tergum about (1.4) as wide at base as apically and about 5 (4.6) times as long as wide basally; 4th sternum normal except for some apical black spinules on medial 1/3; male genitalia (Figs. 23, 24). Male and female similar.

Distribution (Fig. 46): U.S.S.R. (north and northwest European, Caucasia), Norway, Sweden, Finland, Belgium, West Germany, Poland, Czechoslovakia, Switzerland, Austria, Hungary, Romania.

When Stackelberg described *sibirica* he designated a type male and a type female. We here designate his type male as lectotype. We examined the male specimen on which Brădescu's record of *freyana* is based and found it to be a specimen of *sibirica*.

Nomen nudum

"*S. craipes* Meig." in Desmarest 1848: 743 (France).

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