

A revision of the shore-fly genus *Notiphila* Fallén of Palaearctic (Diptera, Ephydriidae)

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The materials on the Palaearctic species of the genus *Notiphila* Fallén were revised. It was discovered that 32 species of *Notiphila* Fallén are distributed in Palaearctic. The types of the most species were examined, uniform descriptions given, figures of genitalia made. 7 new species: *N. asiatica* sp. n., *N. flavoantennata* sp. n., *N. lenae* sp. n., *N. lyra* sp. n., *N. maritima* sp. n., *N. pollinosa* sp. n., *N. subnigra* sp. n. were described, 3 new synonyms were discovered: *N. iranica* Canz. et Men., 1979 is a junior synonym of *N. flava* Dahl, 1973; *N. supposita* Collin, 1911 is a junior synonym of *N. maculata* Stenh., 1844 and *N. imperomana* Math. et Zatw., 1995 (the new name given for *N. australis* Loew, 1860) is a junior synonym of *N. stagnicola* R.-D., 1830. The key for the palaearctic *Notiphila* Fallén was worked out.

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Key words. Diptera, Ephydriidae, *Notiphila*, Palaearctic, revision, new species, key.

Introduction

The genus *Notiphila* Fallén is one of the most abundant genera of Ephydriidae. It includes about 130 species, widely distributed in the world; more than 40 species were registered in Nearctic Region (Mathis, 1979); about 30 species are known for Palaearctic (Mathis, Zatwarnicki, 1995). The taxonomy of the group was worked out by many scientists. The earliest works on European *Notiphila* Fallén were written by C. F. Fallén (1813), J. W. Meigen (1830), J. B. Robineau-Desvoidy (1830), A. H. Haliday (1839), C. Stenhammar (1844) and H. Loew (1856, 1860). Significant contribution was made by Th. Becker, who described 4 palaearctic species (Becker, 1896, 1903, 1926). The fauna of Afghanistan was studied by R. G. Dahl (1973), who discovered 4 new species. Many new species were described by S. Canzoneri and D. Meneghini (1979).

Japanese fauna was revised by I. Miyagi (1966). It is very interesting to note, that as for diagnostic characters for species are rather distinct almost all previously known species proved to be good species. Only 3 new synonyms were discovered: *N. iranica* Canzoneri et Meneghini, 1979 is the junior synonym of *N. flava* Dahl, 1973; *N. imperomana* Mathis and Zatwarnicki, 1995 (the new name for *N. australis* Loew, 1860) = *N. stagnicola* R.-D., 1830; *N. supposita* Collin, 1911 = *N. maculata* Stenhammar, 1844. The present revision was fulfilled in order to unite all the data on previously described species, make comparable descriptions and find the place for 7 new species, described below. The work showed that 32 species of the genus *Notiphila* Fallén are distributed in Palaearctic.

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Material and methods

The collections of several Museums and Institutes were used in this study:

- DEI – Deutsches Entomologisches Institut, Eberswalde, Germany;
 MCV – Museo Civico di Storia Naturale de Venezia, Venice, Italy;
 MMB – Moravian Museum, Brno, Czech Republic;
 MNCN – Museo Nacional de Ciencias Naturales, Madrid, Spain;
 MZH – Museum of Zoology Helsinki, Helsinki, Finland;
 NMW – Naturhistorisches Museum, Wien, Austria;
 NRS – Naturhistoriska Riksmuseet, Stockholm, Sweden;
 ZATW – Personal collection of T. Zatwarnicki, Wrocław, Poland;
 ZIL – Zoological Institute, Lund University, Lund, Sweden;
 ZISP – Zoological Institute, St. Petersburg, Russia;
 ZIU – Zoological Institute, Uppsala University, Uppsala, Sweden;
 ZMHU – Zoological Museum, Humboldt Universität, Berlin, Germany;
 ZMUM – Zoological Museum, Moscow University, Moscow, Russia.

One species – *N. splendens* Macquart, 1851 was not included in the revision because the author did not manage to examine the type. The type specimen of *N. sekiyai* Koizumi was not examined, but the species was included in the key, basing on the redescription, made by I. Miyagi (1966). *N. uliginosa*, *N. brunipes*, *N. stagnicola* were described from the specimens determined by Th. Becker and H. Loew, kept in the collection of the Zoological Museum, Humboldt University, Berlin. Japanese species were discovered in the Far East and determined basing on the author's materials. The original labels are given for the specimens, if necessary the modern geographical names are written in brackets.

Acknowledgements

I would like to thank the following scientists and curators of the collections, who helped much during my work: Dr. S. Canzoneri (now late, MCV), Dr. R. Contreras-Lichtenberg (NMW), Prof. C. Dahl (ZIU), Dr. R. Danielsson (ZIL), Dr. I. Izquierdo and Dr. V. Llorente (MNCN), Dr. P. Lauterer (MMB), Dr. F. Menzel (DEI), Dr. L. Munari (MCV), Dr. H. Schumann (ZMHU), Dr. B. Viklund (NRS), Dr. P. Vilkamaa (MZH), Prof. V. F. Zaitzev (ZISP), Dr. T. Zatwarnicki (ZATW), Dr. A. L. Ozerov (ZMUM). I am very grateful

to Dr. W. N. Mathis (Smithsonian Institution, Washington) for his constant assistance and the help in getting some literature.

Genus *Notiphila* Fallén

Notiphila Fallén, 1810: 22. Type species: *Notiphila cinerea* Fallén, 1813: 250.

Keratocera Robineau-Desvoidy, 1830: 788. Type species: *Keratocera stagnicola* Robineau-Desvoidy, 1830, subsequent designation by Cogan, 1984: 144.

Pegophila Rondani, 1856: 129. Type species: *Pegophila meridionalis* Rondani, 1856: 129.

Agrolimna Cresson, 1917: see below as subgenus.

The members of the genus *Notiphila* Fallén are distinguished from those of related genera by the next characters: costal vein short, ending at apex of R_{4+5} , 2 pairs of dorsocentral bristles, dorsal surface of middle tibia with 3–4 erect bristles; moderately large species among Ephydriidae, body length from 3.0 to 7.0 mm; females relatively larger than males; body coloration usually brownish, pollinose, sometimes with brown spots or stripes, varying in males and females of one species. The next characters are significant in diagnostics: eye-to-cheek ratio, postfrons and prefrons ratio (Mathis, 1979), coloration of face, antennae and palpalae, spots and stripes on thorax, coloration of legs, spines on middle femora, coloration and spots of abdomen. Though these characters are rather distinct they may vary in some species, for example in *N. cinerea* Fallén, so the best way to determine species is to study male genitalia.

According to the present classification the genus *Notiphila* Fallén is divided in 3 subgenera: *Agrolimna* Cresson, *Dichaeta* Meigen and *Notiphila* Fallén (Mathis and Zatwarnicki, 1995). As for the author of the present revision doesn't agree completely with this classification (Krivosheina, 1993) and the revision of the genus *Dichaeta* Meigen was already published (Krivosheina, 1986), only the representatives of *Agrolimna* Cresson and *Notiphila* Fallén were included in the revision. These subgenera can be distinguished mainly by the number of dorsal bristles on middle femora (4 in *Agrolimna* Cresson and 3 in *Notiphila* Fallén with rare exception), and the armation of the middle femora (the rows of posteroventral bristles present only in subgenus *Notiphila* Fallén).

Biology

Immature stages and natural history of several species of *Notiphila* Fallén were studied: *N. brunipes* R.-D. (Torelli, 1922; de Meijere, 1940; Hennig, 1943),

N. riparia Mg. (Müller, 1922; Houlihan, 1969), *N. nigricornis* Stenh., *N. nubila* Dahl, and *N. stagnicola* R.-D. (Krivosheina, 1993). The morphology of egg of *N. annulipes* was studied by R. Dahl (1959). Larvae of *Notiphila* are metapneustic, with the body ending with 2 spines, with the help of which the larvae attach themselves to the roots of plants under water and have possibility to obtain oxygen from aerenchyma (Grünberg, 1910; Rousseau, 1918; Varley, 1937; Velde and Brock, 1980). Some authors considered the larvae to be the pests of rice (Koizumi, 1949; Vadively, 1982).

Subgenus *Agrolimna* Cresson

Agrolimna Cresson, 1917: 48. Type species: *Notiphila scalaris* Loew, 1862: 134.

Notiphila (*Agrolimna*) *sekiyai* Koizumi, 1949

Notiphila (*Agrolimna*) *sekiyai* Koizumi, 1949: 91.

Diagnosis. The species with the fifth abdominal segment elongated in cylindrical tubercle, with 2 long upcurved bristles, 6 weak facial hairs.

Description. The description is given, basing on the work by Miyagi (1966): medium sized flies, body length about 3.0 mm. Head: eye-to cheek ratio 9:1; 6 weak facial hairs. Face coloration golden, contrasting to dark brown frons; palpus yellow. Thorax: brownish-grey, with 3 dark brown faint stripes. Halteres light. Mid femora without bristlike setae. Femora brown, "legs reddish-yellow" (Miyagi, 1966). Mid tibiae with 4 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: basal segment dark brown, second to fourth dark brown basally and grey apically, fifth segment grey with 2 brown lateral spots, tubercle-like with 2 stout upcurved bristles. Genitalia: see Miyagi (1966).

Distribution. The species was described from Honshu (Koizumi, 1949).

Notiphila (*Agrolimna*) *uliginosa* Haliday, 1839 (Figs 1-3)

Notiphila (*Notiphila*) *uliginosa* Haliday, 1839: 222.

Notiphila (*Notiphila*) *tarsata* Stenhammar, 1844: 207.

Lectotype. ♂, by present designation, labelled: O. G. P. Wg (*tarsata*) (NRS).

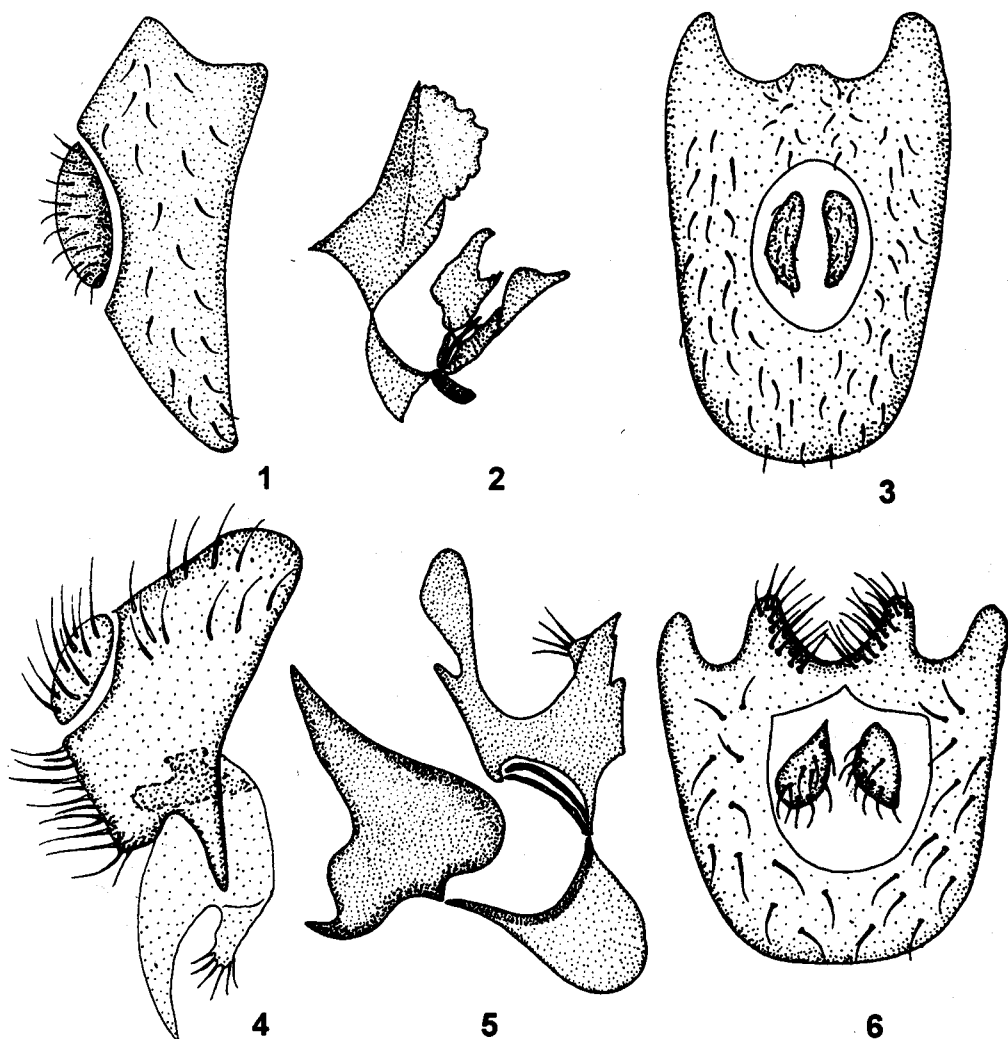
Paralectotypes. ♂, the same label; 1 ♂, Bh. P. Wg., 1 ♂, Hm. Sthm; 8 ♀, O. G. P. Wg.; 2 ♀, Bh. P. Wg. (NRS); 5 ♂, 1 ♀, Typsammlungen nr. 1574

a, b, c, d, e, f, *Notiphila tarsata* Stenhammar, 1844 (ZIU); 1 ♀ *N. tarsata* ♀ a. Stenh. (ZIL).

Material. China: 1 ♂, Mitt. Asien 51904 VII, river Bomyn (Icheqyn), NE Tsaidam, Gobi, Rob[orovsky] Kozlov, VI [18]95 (ZISP). Czech Republik?: 1 ♂, 763, *Notiphila uliginosa* Hal., Kowarz det., 763 (ZISP). Finland: 1 ♀, Helsingfors 44021; 1 ♂, Fennia Naantali, 6.VI.1948 (L. Tiensuu) (MZH). Georgia: 1 ♀, Bogdanovka, Akhalkal.u., Tiflis gub., 21.VI.1909 (Berg) (ZISP). Germany: 1 ♀, Thuringen, 39407, *Notiphila uliginosa* Hal. (ZMHU); Ireland: 1 ♀, Dublin, *Notiphila uliginosa* Halid.* (ZMHU); 1 ♀, *uliginosa* Hal.*; 1 ♂, *uliginosa* Haliday*, Coll. H. Loew (ZMHU). Kazakhstan: 4 ♂, 6 ♀, Atbasar, bank river Dzhabai, 8.VII.1936, 20.VI.1937 (Rezvoi); 1 ♂, 1 ♀, Atbasar, 8.VII.1936 (Rezvoi); 1 ♂, Koturkul, 18 km SO Borovoje, 25.VI.1937 (L. Zimin); 1 ♂, 1 ♀ Akmol. Reg., Shortandy, 8.VII.1938 (B. Kuzin); 1 ♂, 40 km N Zhana-Arka, Karagandinsk.reg., 22.VII.1960 (I. M. Kerzhner); 1 ♀, lake-marsh Ascikul, 23.VI.1936 (Rezvoi); 1 ♀, Kokshetau near river Tersakkan, Akmol., 25.VI.1957 (E. P. Nartschuk) (ZISP, ZMUM). Latvia: 1 ♀, Riga, 39392, *uliginosa* Halid. (ZISP). Lithuania: 1 ♂, 1 ♀, Nidden, 15.7.40, *uliginosa* Haliday (ZMHU). Mongolia: 8 ♂, E.-Gobijsk. Ajmak, Barun-Bajan, 20 km ESE Tal-Khongoryn-Khuduk 29.VI.1971 (I. M. Kerzhner, M. Kozlov); 1 ♂, S.-Gobijsk. Ajmak, lake Bain-Tukhum, 30 km wnw Bajan-Dalaj, 31.VII.1967 (I. M. Kerzhner) (ZISP). Poland: 4 ♂, 6 ♀, *tarsata* Stenh. Coll. H. Loew (ZMHU). Russia: 1 ♂, island Bolshoj Berezovyy, Vyborgskij raion, 27.VII.1979, 16.VI.1980 (M. N. Kandybina); 1 ♀, Leningrad region, 5.VI.1984 (M. G. Krivosheina); 1 ♀, N. Bronnaja, Petergof, 15.VIII.1926 (A. A. Stackelberg); 1 ♀, Berdicyno, Jaroslav.u., 3.VII.1907 (A. Jakovlev); 6 ♂, 6 ♀, Moscow, Izmailovo, 15.VI.1983, 5.VI.1988 (M. G. Krivosheina); 1 ♀, Sarepta (Volgograd), Christoph., Coll. H. Loew, *uliginosa*; 1 ♂, 1 ♀ Ural, VII, 58781; 1 ♀, Ural, VII 5.8.778; 1 ♂, Uktus near Ekaterinburg, Perms., 12.VI.1910 (G. Jakobson); 1 ♂, Zabaikalie, Berzin.region, 20 km E Dauria, lake Bar-Araltuj, 6.VI.1943 (Dubinin); 1 ♂, 2 ♀, 2 Zhemkonsk., Jakutsk Reg., 8-9.VII.1925 (L. Bianki); 2 ♂, Jakutsk 4.VI., 22.X.1900 (Olenin); 1 ♂, 2 Neryuktejsk.nasleg., Jakutsk Reg., 5.VII.1925 (L. Bianki); 1 ♂, 2 Tylymynsk.nasl., Jakutsk Reg., 9.VII.1925 (L. Bianki); 3 ♀, road to r.Amga, Jakutsk Reg., 15-18.VII.1925 (L. Bianki); 5 ♂, 4 ♀, Amur region, Zeja, 29.VI.1981 (A. L. Ozerov, A. I. Shatalkin) (ZISP, ZMUM). Tadzhikistan: 1 ♂, Ziddy, N Mountainsaide Gissarsk.khrebet, 15.VI.1944 (A. A. Stackelberg) (ZISP).

Diagnosis. The species with brown general coloration, distinguished mainly by the next characters: antennae black, palpa black; tibia black.

Description. Medium sized flies, body length about 3.4-4.2 mm. Head: 1 strong reclinate bristle and 1 weak proclinate seta; postfrons ratio 1:1.4; prefrons ratio 1.3:1; eye-to cheek ratio 4.5:1; 3 facial hairs.

Figs 1–6. *Notiphila* Fallén.

1–3, *N. uliginosa* Haliday: 1, epandrium, lateral view; 2, internal male genitalia, lateral view; 3, epandrium, dorsal view. 4–6, *N. venusta* Loew: 4, epandrium, lateral view; 5, internal male genitalia, lateral view; 6, epandrium, dorsal view.

Face coloration golden, contrasting to dark brown frons with 2 black longitudinal spots. Palpi black; antennae black. Thorax: brown-black, without distinct spots or stripes. Halteres yellow-white, stem yellow. Fore coxae with 2 setae anteriorly, mid coxae with 1 seta. Mid femora without a comb of bristlike setae. Tibiae black. Mid tibiae with 4 dorsal bristles. Tarsi light brown, apical tarsomeres darkened. Abdomen: tergites grey with 2 spots. Genitalia: epandrium oval, aedeagus moderately broad, aedeagal apodeme triangular.

Distribution. The species was described from Great Britain (Haliday, 1839). Widely distributed in Palaearctic and Nearctic.

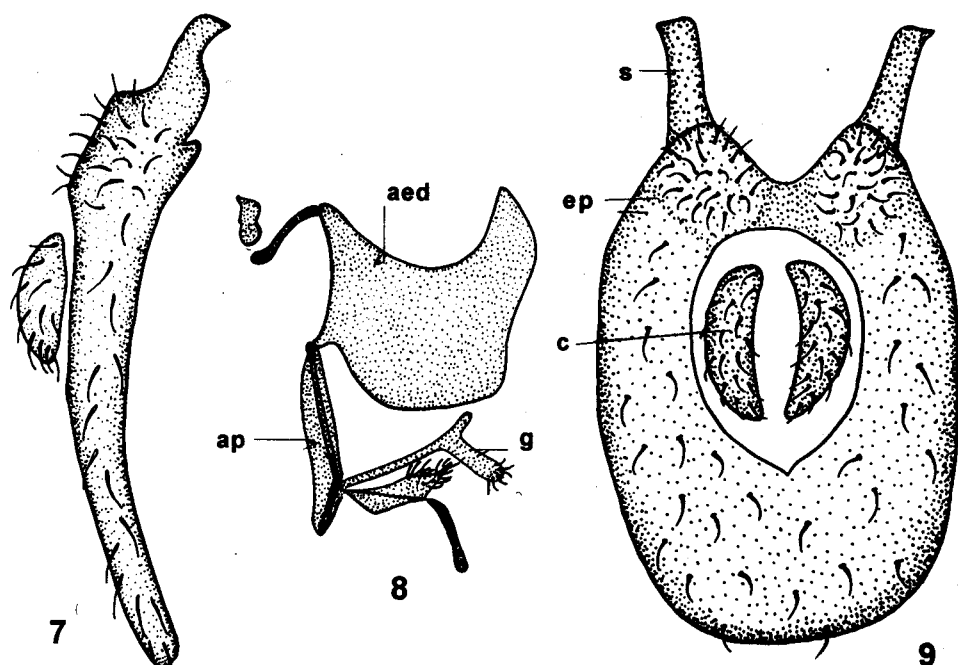
Notiphila (Agrolimna) venusta Loew, 1856 (Figs 4–6)

Notiphila venusta Loew, 1856: 56.

Lectotype. ♂, by present designation, labelled: Neusiedl. See 55, Coll. H. Loew (without legs, wings) (ZMHU);

Paralectotype. ♀, Neusiedl. See, Coll. H. Loew, 14380, *Notiphila venusta* m. (ZMHU).

Material. **Armenia:** 20 ♂, 25 ♀, Parakar, 11.IX. 1962, (V. Rikhter); 1 ♀, Gekhard, 23.VIII.1971 (V. Rikhter) (ZISP). **France:** 1 ♂ Digne, VI, 56131 (ZMHU). **Czech Republik?:** 1 ♂, Zosner, 1867, 7.766, *Notiphila*

Figs 7-9. *Notiphila annulipes* Stenhammar.

7, epandrium, lateral view; 8, internal male genitalia, lateral view; 9, epandrium, dorsal view. Abbreviations: aed - aedeagus, ap - aedeagal apodeme, c - cerci, ep - epandrium, g - gonites, s - surstyli.

venusta Lw., Kowarz det. (ZISP). **Germany:** 1 ♀, Nordsh, Hoffms. Coll. H. Loew, Typus; 1 ♂ Charlottenbrunn, ♂ 8/7 32195 *venusta* Lw. (Becker det.) (ZMHU). **Kirghizija:** Belovod., Sretenka, 30.V.1931 (L. Zimin) (ZMUM). **Poland:** 1 ♀, Coll. H. Loew, Typus; 1 ♀, Polonia; 1 ♂, 2 ♀, 21709 Silsterwitz Schles. Duda, *venusta* Lw., (Duda); 1 ♂, 1 ♀, Nimptsh. (Nimcza) Schles. Duda; 1 ♂, 1735 Laband (Gliwice-Tabedy) Os. I. Duda, *N. venusta* Lw. ♂ d. Duda (ZMHU). **Romania:** 1 ♀, Siebenburgen 7.39167; 1 ♂, Siebenburgen 7.39183 *venusta* Lw. (ZMHU). **Russia:** 1 ♂, Sarepta Christoph (Volgograd) 978 *annulipes*? H. Loew.; Caucasus, N. Ossetia, near Alagir, 24.VI.1990 (A. L. Ozerov); 1 ♂, Caucasus, N. Ossetia, 15 km N Ardon, 11.VII.1990 (A. L. Ozerov) (ZMHU, ZMUM). **Tadzhikistan:** 3 ♂, Ziddy, N. mountainside Gissar. Khrebet, 15.VI.1944 (A. A. Stackelberg); 1 ♀, Khanaka, Gissar., 20.VII. (L. Zimin) (ZISP, ZMUM). **Ukraine:** Krym, near Novoaleksandrovka, 19.VI.1924 (V. Kuznetsov) (ZISP).

Diagnosis. The species with golden-grey general coloration, distinguished mainly by the next characters: antennae black, third antennal segment yellow, apically darkened; fore tibiae black, scutum with 3 narrow indistinct stripes, anepisterna with brown band.

Description. Medium sized flies, body length about 3.0 mm. Head: 1 strong reclinate bristle and 2 weak proclinate setae; postfrons ratio 1:2; prefrons ratio 1.4:1; eye-to cheek ratio 5:1; 5 facial hairs. Face

coloration golden, not contrasting to frons, frons with 2 black stripes. Palpi yellow; first and second antennal segments black, third - yellow with darkened apex. Thorax: golden, with 3 indistinct stripes on scutum and anepisternal stripe. Halteres whitish with yellow stem. Fore coxae with 1 seta anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora without a comb of bristlike setae. Fore tibiae black. Mid tibiae yellow with 4 dorsal bristles, hind tibiae yellow with black band. Tarsi yellow, dorsally darkened. Abdomen: tergites grey with 4 spots. Genitalia: epandrium broad, aedeagus pointed, aedeagal apodeme short.

Distribution. The species was described from Hungary (Loew, 1860). Widely distributed in Central and Southern Europe, Russia: Caucasus; Armenia; Ukraine; Middle Asia.

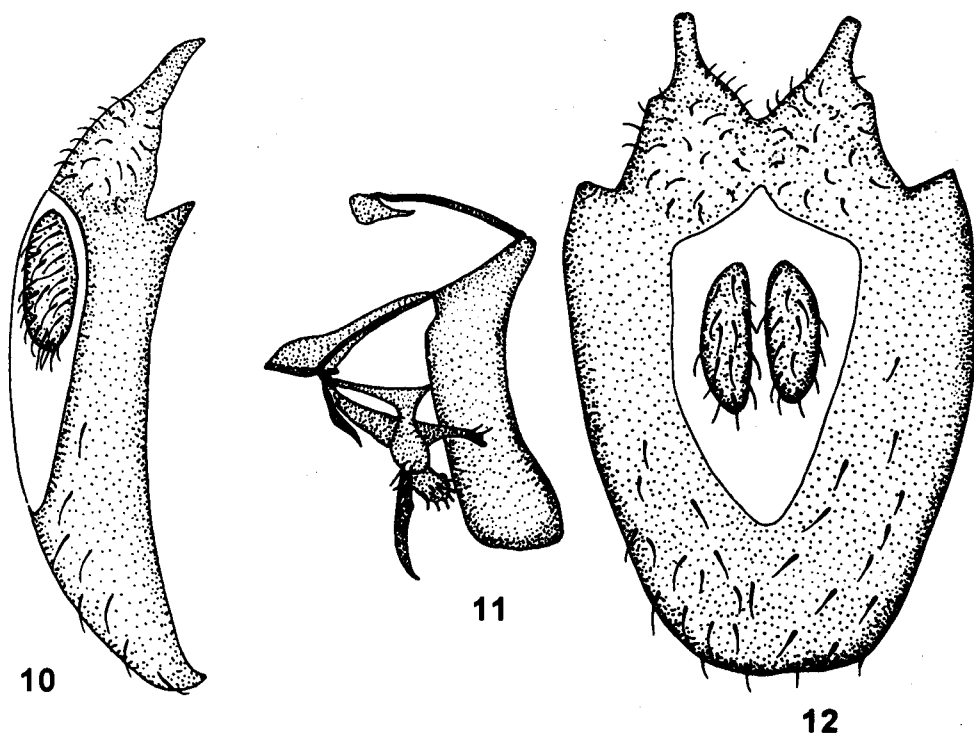
Subgenus *Notiphila* Fallén

Notiphila Fallén, 1810: 22. Type species: *Notiphila cinerea*, 1913: 250.

Notiphila (*Notiphila*) *annulipes* Stenhammar, 1844

(Figs 7-9)

Notiphila (*Notiphila*) *annulipes* Stenhammar, 1844: 203.

Figs 10–12. *Notiphila aquatica* Becker.

10, epandrium, lateral view; 11, internal male genitalia, lateral view; 12, epandrium, dorsal view.

Lectotype. ♂, by present designation, labelled: O. G. Sthr. (NRS).

Paralectotypes. 2 ♀, O. G., P. Wg; 1 ♀, O. G. Sthr. (NRS); 1 ♂, *N. annulipes* a Stenh ♂; 1 ♀, *N. annulipes* a Stenh. ♀ (ZIL).

Material. **Finland**: 1 ♂, Metsäpirtti 2, 30/6 1934, Fennia (Krogerus). **Poland**: 3 ♂, Kohlfurt (Węgliniec) 25/6 31805; 1 ♂, 2 ♀, *annulipes* Stenh*, Coll. H. Loew; 1 ♀, Wustung b.Habelswerdt (Bystrzyca Kłodzka), *annulipes* ♀ Stenh. (Duda det.) (ZMHU); 1 ♂, 1 ♀, Kohlfurt (Węgliniec), 25/6 31807 (MNCN). **Roumania**: 1 ♀, Siebenburgen (Transylvania), 7.39133. **Russia**: 1 ♂, Cartesh, 30 km E.Chup, N. Karelia, bank of lake, 21.VII.1975 (K. B. Gorodkov); 1 ♂, Javenga, Vologda Region, 10.VII.961 (K. B. Gorodkov); 1 ♀, Moscow Region, Puscino, 26.VI.1984 (M. Krivosheina); 1 ♀, S.Ural 58249; 1 ♂, Railway station Uktus near Ekaterinburg, 12.VI.1910 (Jakobson); 1 ♂ Khargun, 6 km E Kyren, Sajon Mountains, carex marsh, 700 m, 11.VII.965 (K. B. Gorodkov); 1 ♂, Irkuysk Region, Listvjanka, Nikola, 24.6.1965 (O. P. Negrobov); 1 ♂, Kutana, Sungarskij Region, Jakutija, 2.07.1987 (V. V. Zlobin) (ZISP, ZMUM). **Sweden**: 2 ♂, Dlc., Alp. Bhn; 1 ♀, Dlc. Alp. (NRS). **Ukraine**: Lumshory, Karpary, 27.VII.1964, (K. B. Gorodkov) (ZISP).

Diagnosis. The species with greyish-brown general coloration, distinguished mainly by the next char-

acters: antennae dark with yellow narrowly darkened third segment, fore tibiae black, mid and hind tibiae with bright black bands.

Description. Medium sized flies, body length about 3.0 mm. Head: 1 strong reclinate bristle; postfrons ratio 1:1; prefrons ratio 2:1; eye-to cheek ratio 4:1; 2 weak facial hairs. Face coloration golden, contrasting to brownish coloration of frons; palpi yellow; first and second antennal segments dark, third – yellow, with narrow dark apical part. Thorax: brownish-grey with small brown anepisternal spot, without brown stripes. Halteres yellow-white. Fore coxae grey with 3 weak short hairs anteriorly, mid coxae with 1 long bristle. Mid femora with posteroventral comb of bristlike setae. Fore tibiae black except the most base and apex, mid tibiae with dark narrow band about 1/4 of the tibial length, hind tibiae with wider dark band about 1/3 of its length. Mid tibiae with 3 dorsal bristles. Fore tarsi darkened dorsally, mid and hind tarsi yellow with dark apical tarsomeres. Abdomen: tergites with 2 brown spots. Genitalia: surstyli relatively broad, cut at apex; aedeagus rounded, broad; aedeagal apodeme long.

Distribution. The species was described from Sweden (Stenhammar, 1844). Widely distributed in Europe, Russia: European part, Ural, Siberia. Common.

***Notiphila (Notiphila) aquatica* Becker, 1896**
(Figs 10–12)

Notiphila aquatica Becker, 1896: 114.

Lectotype. ♂, by present designation, labelled: **Polen**, Schnabl (ZMHU).

Material. **Czech Republic:** 2 ♂, 1 ♀, Franzbnd (Františkovy Lázně) (Kowarz) (ZISP). **Finland:** 1 ♂, 1 ♀, 705:25, Om Jakobstad, 15.7.1955 (R. Storå) (MZH). **Russia:** 1 ♂, Leningrad Region, 3.VII.1984 (M. Krivosheina) (ZMUM).

Diagnosis. The species with brownish general coloration, brown scutum, distinguished mainly by the next characters: antennae yellow, with darkened third segment, cheeks narrow, fore tibiae black, mid and hind tibiae black.

Description. Medium sized flies, body length about 3.5 mm. Head: 1 strong reclinate bristle and 1 weak proclinate hair; postfrons ratio 0.7:1; prefrons ratio 1.15:1; eye-to cheek ratio 5.5:1; 2 facial setae. Face coloration golden, not contrasting to coloration of frons; palpi yellow; first and second antennal segments yellow, third – yellow, with dark apical part. Thorax: brown without spots or stripes. Halteres yellow. Fore coxae grey with 2 setae anteriorly, mid coxae with 2 setae. Mid femora with posteroventral row of bristlike setae. Fore tibiae black except the most base, mid tibiae and hind tibiae black. Mid tibiae with 3 dorsal bristles. Tarsi orange-yellow, apical tarsomeres darkened. Abdomen: tergites with 4 spots. Genitalia: surstyli triangulate, apically narrowed, without a bun of hairs; aedeagus long and slender; aedeagal apodeme long.

Distribution. The species was described from Poland (Becker, 1896). Besides this is registered from Finland, Czech Republic and Russia: Leningrad Region. All the other examined specimens were redetermined. Rare.

Notiphila (Notiphila) asiatica

M. Krivosheina sp. n.

(Figs 13–15)

Holotype. ♂, Кырен, В.Саяны, 700 м, 11.VII.[1]965 (Городков) (**Russia:** Кырен, Е.Саян, 700 м, 11.VII.[1]965 ([K. B.] Gorodkov)) (ZMUM).

Paratypes. 2 ♂, **Mongolia**, Central Ajmak, northern mountainside, of Bogdoul near Ulan-Bator, 22.VII.1967 (V. F. Zaitzev) (ZISP); **Russia:** 2 ♂, 2 Zhemkensk. nasl., Jakutsk Reg., 9.VII.1925 (L. Bianki); 1 ♂, 2 Tylymynsk nasleg, Jakutsk Reg., 2.VII.1925 (Ivanov); 1 ♂, Lake Keedey, road to river Amga, Jakut. Reg., 15.VII.1925 (L. Bianki) (ZMUM).

Diagnosis. The species with brown-grey general coloration, narrow frons and varying eye-to-cheek ratio.

Description. Medium sized flies, body length 4.0

mm. Head: 1 strong reclinate seta and 1 short proclinate hair; postfrons ratio 1:1; prefrons ratio 1.2:1; eye-to cheek ratio 3.3:1 in holotype and 3.5–4.3 in paratypes. 3 thin short facial hairs. Face golden, cheeks grey, frons brown; palpi yellow; antennae dark-yellow, first and second segments with black spines, third apically darkened. Thorax: brown-grey without stripes or spots. Halteres yellow. Fore coxae with 4 setae, mid coxae with 2 seta and a row of short hairs. Mid femora with a comb of bristlike setae. Fore tibiae black except the base and apex, mid and hind tibiae yellow with dark median bands. Mid tibiae with 3 dorsal bristles. Fore tarsi darkened, mid and hind tarsi yellow with darkened apical segments. Abdomen: tergites with 4 spots. Genitalia: surstyli strongly curved ventrally; aedeagus convex; aedeagal apodeme short, oval.

Distribution. Russia: Siberia; Mongolia.

***Notiphila (Notiphila) brunipes* (Robineau-Desvoidy, 1830)**

(Figs 16–18)

Keratocera brunipes Robineau-Desvoidy, 1830: 798.

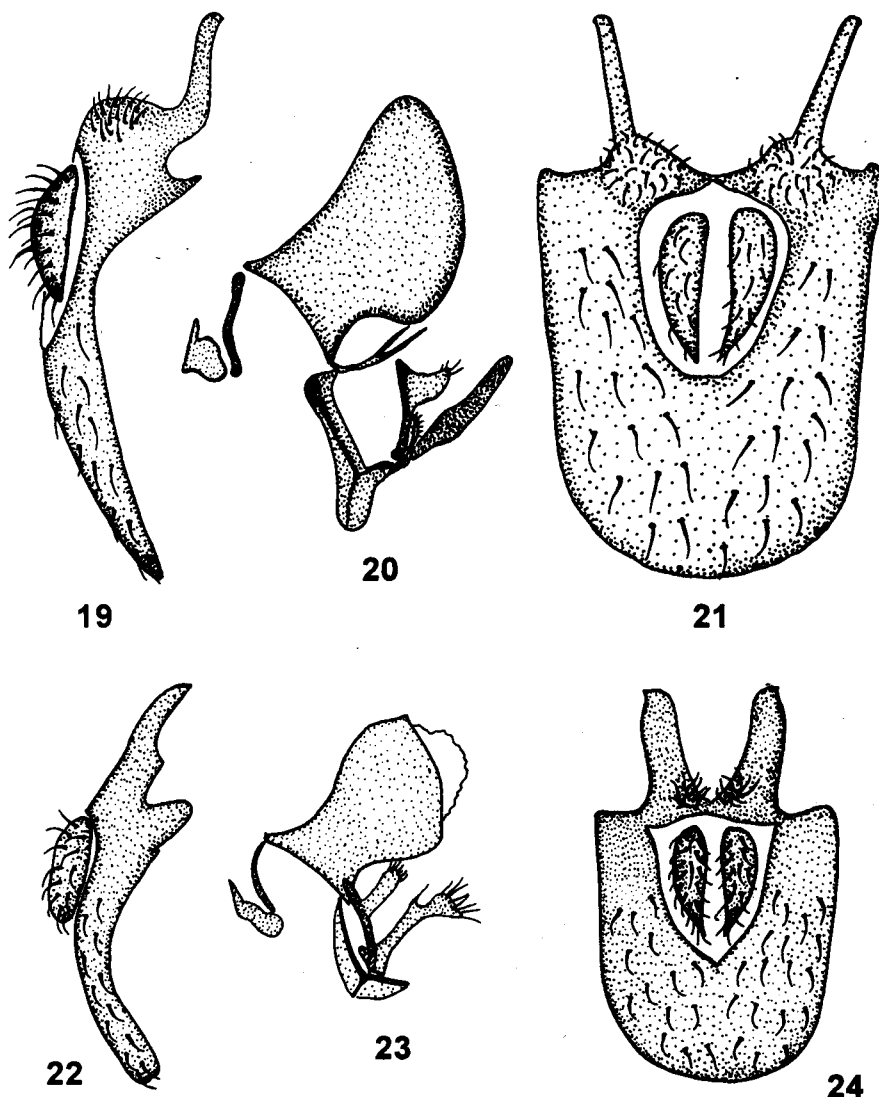
Notiphila chamaeleon Becker, 1896: 114.

Lectotype. ♂, by present designation, labelled: *chamaeleon* (ZMHU).

Material. **Finland:** 2 ♀, Kakisalmi (L. Tiensuu) (MZH). **Germany:** 1 ♂, Berlin, Tegel-See, 12.6.03, (S. Grunberg) (ZMHU). **Poland:** 1 ♀, Kohlfurt (Węliniec) 12/7 6858 *brunnipes* R.-D. (Becker det.); 7 ♀, *stagn.* Stenh* Coll. H: Loew, 14376 (ZMHU). **Russia:** Moscow Region, Puscino, 26.VI.1984 (M. Krivosheina); 14 ♂, Astrakhanskij Preserve, 15.VI.1937 (N. G. Olsufiev).

Diagnosis. The species with dark brownish general coloration, distinguished mainly by the next characters: face bright silvery-white, antennae black, with yellow strongly darkened third segment, sometimes completely black, fore legs black, mid and hind tibia black.

Description. Medium sized flies, body length about 3.5 mm. Head: 1 strong reclinate bristle; postfrons ratio 1:1; prefrons ratio 1.3:1; eye-to cheek ratio 3:1; 4 facial hairs. Face coloration bright silvery-white, strongly contrasting to black coloration of frons; orbitae silvery-white, palpi yellow, first and second antennal segments black, third – yellow, mainly darkened. Thorax: brown without spots, with indistinct brown median stripe on scutum; lateral surface grey. Halteres yellow. Fore coxae grey without setae anteriorly, mid coxae with 1 seta. Mid femora with posteroventral comb of bristlike setae. Fore tibiae black, mid tibiae and hind tibiae black. Mid tibiae with 3 dorsal bristles. Fore tarsi darkened, mid and hind tarsi orange-

Figs 19–24. *Notiphila* Fallén.

19–21, *N. cinerea* Fallén: 19, epandrium, lateral view; 20, internal male genitalia, lateral view; 21, epandrium, dorsal view. 22–24, *N. cogani* Canzoneri et Meneghini: 22, epandrium, lateral view; 23, internal male genitalia, lateral view; 24, epandrium, dorsal view.

yellow, apical tarsomeres darkened. Abdomen: tergites with 2 spots. Genitalia: surstyli narrowly triangulate; aedeagus triangulate; aedeagal apodeme long.

Distribution. The species was described from France (Robineau-Desvoidy, 1830). Widely distributed in Europe. Russia: Moscow region, Astrakhan. Common.

***Notiphila (Notiphila) cinerea* Fallén, 1813**
(Figs 19–21)

Notiphila cinerea Fallén, 1813: 250.

Keratocera fulvicornis (Robineau-Desvoidy, 1830): 789.

Keratocera palustris (Robineau-Desvoidy, 1830): 788.

Keratocera trapae (Robineau-Desvoidy, 1830): 789.

Lectotype. ♂, by present designation, labelled: *N. cinerea*, Mus. Fall. (ZIL).

Paralectotypes. 1 ♂, *N. cinerea* ♂; 1 ♀, *N. cinerea* ♀; 1 ♀ *cinerea* Fll. (Coll. Zetterstedt); 1 ♀ *cinerea* ♀; (ZIL).

Material. Austria: 1 ♀, Manhartsberg, Nied. Oster.; 3 ♀, Vena, 19.VIII, Prater, 1937 (Zhenzhurist) (ZISP). Croatia: 7 ♂, Dalmatien; 1 ♀, Dalmatien 18/5 22597 *cinerea* Fall. (Becker det.) (ZMHU). Czech Republic: 1 ♀, *Notiphila cinerea* Fll., Kowarz det. 769, Asch 869.9 (ZISP). Egypt: 2 ♂, Kairo, *cinerea* Fall.

(Becker det.) (ZMHU). **Finland:** 1 ♂, Naantali, 11.VI.1945, Fennia (L. Tiensuu) (MZH). **Germany:** 1 ♂, Halle; 1 ♂, 27/4 Sylt 32753; 13 ♂, 1 ♀ Ilfeld (Sud Harz) Duda, *N. cinerea* Fll. ♂ d. Duda; 5 ♂ Artern Duda; 7 ♂ P-Sachs. Duda; 1 ♂, 30.8.29 *N. cinerea* Flln. ♀ d. Duda; 1 ♀, Herten Westf., Duda, 7.41; 1 ♀, coll. Osten-Sacken; 1 ♀, *Notiphila cinerea* Meigen, coll. Brandt; 1 ♂, Lähn, 5.3.1050 *cinerea* Fll. Becker det. (ZMHU); 2 ♂, Berlin, Grünewald, 5-97 (DEI). **Great Britain:** 1 ♂, Shetland, 148 (Reuter) (ZMHU). **Hungary:** 3 ♂, Neusiedl. See (ZMHU). **Lithuania:** 1 ♀, near Vilnius, 3.VIII.961 (O. L. Kryzhanovsky) (ZISP). **Poland:** 5 ♂, Coll. H. Loew; 10 ♂, ♀, Coll. H. Loew Breslau (Wrocław); 10 ♂, Kohlfurt (Węgliniec) 25/6 31807, 31805 *dorsata* Stenh. (Becker det.); 2 ♂, Rothkirch. (Czerwony Kosciol); 6 ♂, Polonia; 8 ♂, Nimptsh. Schles (Niemcza), Duda; 5 ♂, Glevitz (Glivice) Os. I. Duda; 1 ♂, Coll. H. Loew; 1 ♀, Oderwald (?Malczyce) 15/9, 36389 (ZMHU); 14 ♂, Polonia, Wrocław, 17.07.1983 (T. Zatwarnicki); 7 ♂, 4 ♀, Polska Owczary, dist. Busco, Stonawisko, 4.VI.1975 (R. Szadziwski) (ZATW). **Roumania:** 1 ♂, Siebenburgen, Coll. Lichtward, 09.1895. **Russia:** 3 ♂, 2 ♀, Luzhsk., Leningrad Region, 20.VIII.962 (A. A. Stackelberg); 7 ♂, 2 ♀, near Leningrad, 5-7.VIII.1984 (M. G. Krivosheina); 1 ♂, Sablino, Petrograd, 3.IX.924 (A. A. Stackelberg); 1 ♂, Petrograd, Smolensk. pl., 24.VIII.922 (A. A. Stackelberg); 3 ♀, Leningrad Region, Vyborgskij District, Is. Bolshoj Berezovyy, 16.VI.1960 (M. N. Kandybina); 1 ♀, vic. Luga, NW Russia, Gobzhitz, 13.VIII.1934 (A. A. Stackelberg); 1 ♂, Vologda Region, Javenga, 10.VII.961 (K. B. Gorodkov); 1 ♀, Vologda Region, Ust-Kubenskij District, Nikolskoje (N. P. Krivosheina); 1 ♀, 641, 3.V.77, Ivanovo, 21.V.77; 9 ♂, 7 ♀, Moscow, Izmailovo, 5.V.1983 (M. G. Krivosheina, A. L. Ozerov); 1 ♂, Moscow Region, Zvenigorod, 8.9.72 (A. I. Shatalkin); 1 ♂, 1 ♀, Moscow Region, Puscino, 22.VI.1984 (M. G. Krivosheina); 1 ♀, Moscow Region, Golycyno, 18.VI.977 (A. I. Shatalkin) (ZISP. ZMUM); 1 ♀, Ural VII, 58778 (ZMHU). **Spain:** 1 ♂, Algericas, Andalusien (Prof. G. Strobl); 2 ♀, *Notiphila cinerea* Fll., Malgrat, 21/5 Span (MNCN). **Ukraine:** 1 ♂, Coll. Wagner (ZISP). **Uzbekistan:** 1 ♀, Asia Media, 10 km S Zirabulal (Bukhara-Khiva), 23.V.28 (L. Zimin) (ZISP).

Diagnosis. The species with greyish-brown general coloration, distinguished mainly by the next characters: all tibiae yellow, eye-to-cheek ratio 3:1.

Description. Medium sized flies, body length to 4.3 mm. Head: 1 strong reclinate bristle; postfrons ratio 1:1; prefrons ratio 1.5:1; eye-to-cheek ratio 3:1; 4 weak facial hairs. Face coloration golden, contrasting to more brown coloration of frons; palpi yellow; first and second antennal segments dark, third – yellow, with narrow dark apical third or half. Thorax: brownish-grey with small brown anepisternal spot, without brown stripes; very small brown points may present in the base of

thoracal setae. Halteres yellow-white. Fore coxae grey with 3 rows each of 3 weak short hairs anteriorly, mid coxae with 1 long bristle. Mid femora with posteroventral comb of bristlike setae. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow with darker apical tarsomeres. Abdomen: tergites with 4 distinct brown spots. Genitalia: surstyli narrow, straight and long; aedeagus rounded, broad; aedeagal apodeme narrow.

Distribution. The species was described from Sweden (Fallén, 1813). Widely distributed in Europe, Russia: European part, Ural; Middle Asia. Common.

Notiphila (Notiphila) cogani Canzoneri et Meneghini, 1979 (Figs 22–24)

Notiphila cogani Canzoneri et Meneghini, 1979: 204.

Holotype. ♂, *Notiphila cogani* sp. n. det. Canzoneri S., det. Maneghini D., Sardegna Macomer ruscello, 7 km N, 10-VIII-55, A. Giordani Soika, Museo Civico di Storia Naturale di Venezia, Materiale tipico descritto, Inv.n. 02812.

Paratypus. ♂, Agnano terme Canale collettore, 28-VIII-58, A. Giordani Soika, Paratypus *cogani* sp. n., det. Canzoneri S., det. Maneghini D. Inv.n. 02837 (MCV).

Material. **Tunisia:** 3 ♂, 3 ♀, S Tunisia Gabel, 19 km S Qued Kettana, 18-19-IX-88 (G. Soika). **Morocco:** 1 ♂, Maroc (ZMUM).

Diagnosis. The species with greyish general coloration, scutum with stripes and spots, tibiae yellow.

Description. Medium sized flies, body length 4.0 mm. Head: 1 strong reclinate bristle; postfrons ratio 1:1; prefrons ratio 2:1; eye-to-cheek ratio 4:1; 4+1 weak facial hairs. Face coloration grey, slightly contrasting to more brown coloration of frons; dark W-shaped spot present; palpi yellow; first and second antennal segments dark, third – yellow, with narrow dark apical part. Thorax: brownish with brown anepisternal spot, one brown central stripe diverging posteriorly is present on scutum, post[ronotum with brown stripes; lateral surface of scutellum brown. Halteres yellow-white. Fore coxae grey without developed hairs anteriorly, mid coxae with 1 long bristle. Mid femora with posteroventral comb of bristlike setae. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow with darker apical tarsomeres. Abdomen: tergites with 4 distinct brown spots, central spots long, contacting posterior margin of tergite, lateral spots two times shorter; besides this distinct brown spots in bases of abdominal setae present. Genitalia: surstyli small, curved and apically cut, but pointed; aedeagus rounded, broad; aedeagal apodeme narrow.

Distribution. The species was described from Italy (Canzoneri, Meneghini, 1979). Coast of Mediterranean Sea: Morocco, Tunisia.

Notiphila (Notiphila) dorsata

Stenhammar, 1844

(Figs 25–27)

Notiphila (Notiphila) dorsata Stenhammar, 1844: 198.

Lectotype. ♂, by present designation, labelled: *N. dorsata* a Stenh. ♂ (ZIL).

Paralectotypes. ♀, the same label (ZIL); 1 ♀, O. G. P. Wg.; 1 ♀, O. G. Sthr. (NRS); 3 ♂, 3 ♀, *dorsata*, Types 1748 a-f, (ZIU).

Material. **Armenia:** 1 ♀, Elenovka, Zakgi, Eriv., 2.V.1905 (Elachich, Klemant) (ZISP). **Croatia:** 1 ♀, Dalmatien 22/5 22952 (ZMHU). **Finland:** 1 ♂, Kirkijoki, 7.VII.1936 (L. Tiensuu) (MZH). **Germany:** 1 ♂, Berlin, Grünwald, coll. Oldenberg (DEI). **Italy:** 2 ♀, *Notiphila dorsata* Sth., Triest (G. Strobl) (MNCN). **Poland:** 1 ♂, Poland, Wrocław, 8.06.1997 (M. Krivosheina); 1 ♂, *dorsata* Stenh*, Coll. H. Loew; 4 ♂, 6 ♀, *dorsata* Stenh* (ZMHU). **Russia:** 1 ♀, Vologda Region, Javenga, 19.VII.1961 (K. B. Gorodkov); 3 ♂, Moscow Region, Puscino, 26.VI.1984 (M. G. Krivosheina); 2 ♂, Moscow Region, 20 km WSW Volokolamsk, 1.VIII.1995 (A. L. Ozerov); 1 ♀, Bobrovskoje, 20 km SE Sverdlovsk, marsch, 22.VII.1977 (K. B. Gorodkov); 1 ♀, Ural VII 58778; 4 ♂, Astrakhanskij Preserve, 15.VI.1937 (N. G. Olsufiev); 1 ♂, 1 ♀, Caucasus, Northern Ossetia, near t.Alagir, 18.V.1989 (A. L. Ozerov); 1 ♂, Southern Primorje, 40 km SE Ussurijsk, 3.VII.1985 (A. L. Ozerov) (ZISP, ZMUM). **Sweden:** 2 ♀, Hlm., P.Wg.; 1 ♂, Sc, Bhn (NRS); 1 ♂, 1 ♀, *dorsata*, with golden labels (=Westgothia) (ZIL).

Diagnosis. Close to *N. cinerea* Fl. The species with brown general coloration, distinguished mainly by the next characters: third antennal segment dark except round spot in base, sometimes completely black; fore tibiae darker, mid tibiae yellow, hind tibiae yellow with dark indistinct band.

Description. Medium sized flies, body length to 4.0 mm. Head: 1 strong reclinate bristle; postfrons ratio about 1:1; prefrons ratio 1.1:1; eye-to cheek ratio 3:1; 3–4 weak facial hairs. Face coloration golden, not contrasting to coloration of frons, but with noticeable W-shaped darker spot, surrounding ocellar triangle; palpi yellow; first and second antennal segments dark, third – dark, with small yellow round spot in base. Thorax: brownish with two small brown spots on anepisterna, forming a band between spiracle and anepisternal setae; without brown stripes on scutum. Halteres yellow. Fore coxae grey with 3 weak short hairs anteriorly, mid coxae with 2 long bristle. Mid femora with posteroventral comb of bristlike setae.

Fore tibiae darkened, mid tibiae yellow, hind tibiae yellow with dark indistinct band. Mid tibiae with 3 dorsal bristles. Tarsi yellow with black setae, brightly contrasting to tarsal coloration. Abdomen: tergites with 4 distinct brown spots, forming double brown median stripe. Genitalia: surstyli rounded-hooked and short, aedeagus short, broad; aedeagal apodeme narrow.

Distribution. The species was described from Sweden (Stenhammar, 1844). Widely distributed in Europe. Russia: European part, Ural, Caucasus, Far East. Armenia. Common.

Notiphila (Notiphila) esoensis Miyagi, 1966

(Figs 28–30)

Notiphila esoensis Miyagi, 1966: 122.

Material. **Russia:** 2 ♂, 1 ♀, Primorskij Kraj, Novokievsk., Posietsk Reg., 28.VI.1933 (A. Miscenko) (ZMUM).

Diagnosis. Close to *N. riparia* Mg. The species with golden-grey general coloration, distinguished mainly by the next characters: 3 facial setae, cheeks broader, eye-to-cheek ratio 4:1, thorax golden-grey, tibiae yellow with dark bands.

Description. Medium sized flies, body length 3.8–4.0 mm. Head: 1 reclinate bristle and 1 proclinate hair; postfrons ratio about 1:1.4; prefrons ratio 1:1; eye-to cheek ratio 4:1; 3 facial setae and 1 short hair. Face and frons coloration golden, palpi yellow, antennae yellow, third antennal segment apically darkened. Thorax: golden-grey without spots or stripes. Halteres yellow-white. Fore coxae with 1 long and 2–3 short hairs. Mid coxae with 2 bristles. Mid femora with posteroventral comb of bristlike setae. Tibiae yellow with dark bands, brighter from dorsal view. Mid tibiae with 3 dorsal bristles. Tarsi yellow with darkened apical tarsomeres. Hind basitarsus with 2 spines. Abdomen: tergites 1–2 without spots, next tergites with 4 indistinct spots. Fifth male abdominal tergite 4/3 as wide as long. Genitalia: surstyli long, apically narrowed but bulbous at the most apex; aedeagus long.

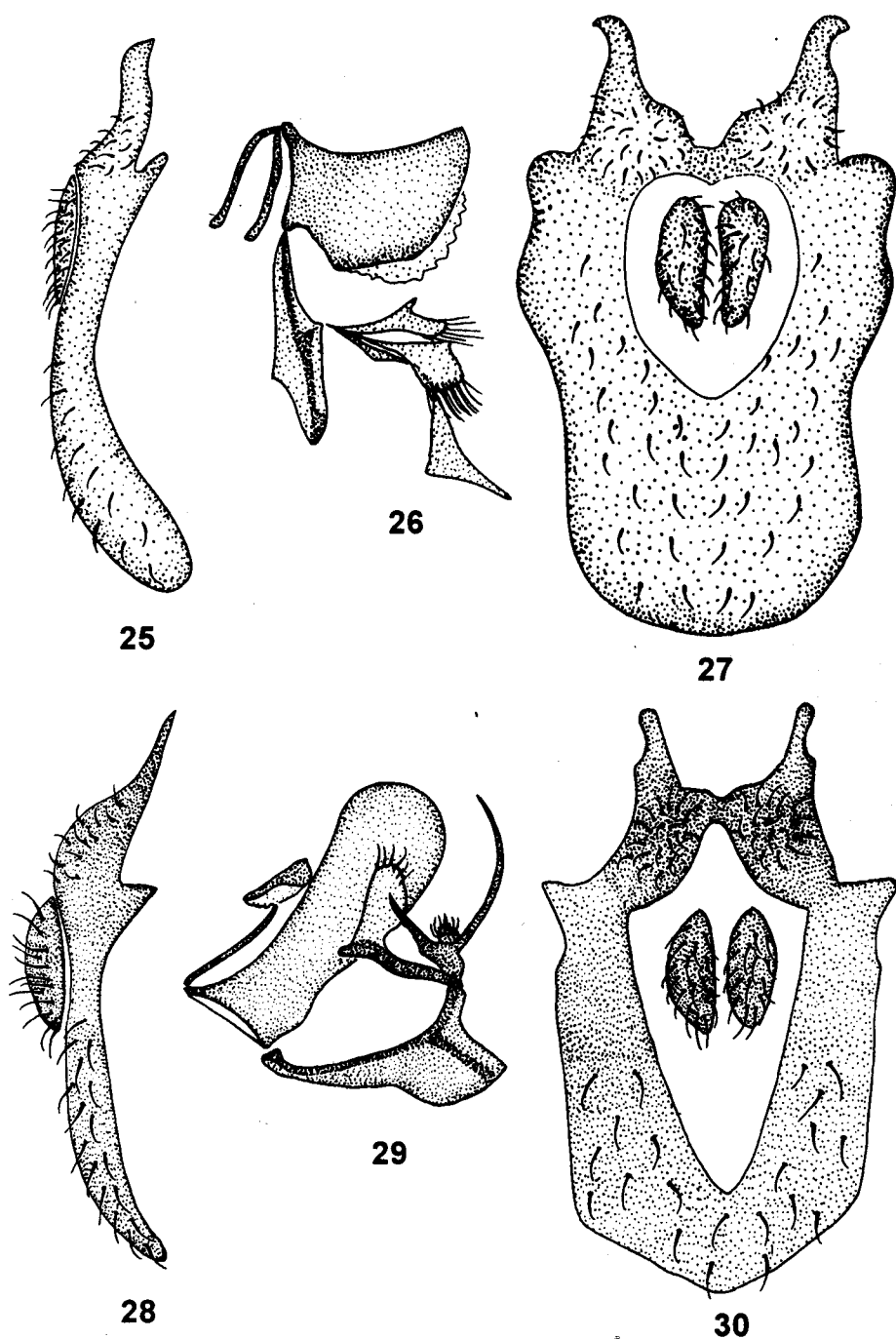
Distribution. The species was described from Japan (Miyagi, 1966). Registered in Russia: Far East, Southern Primorje.

Notiphila (Notiphila) flava Dahl, 1973

(Figs 31–33)

Notiphila flava Dahl, 1973: 351.

N. iranica Canzoneri et Meneghini, 1979: 209, syn. nov.

Figs 25–30. *Notiphila* Fallén.

25–27, *N. dorsata* Stenhammar: 25, epandrium, lateral view; 26, internal male genitalia, lateral view; 27, epandrium, dorsal view. 28–30, *N. esoensis* Miiagi: 28, epandrium, lateral view; 29, internal male genitalia, lateral view; 30, epandrium, dorsal view.

Holotype. ♂, *Notiphila flava* Dahl, O. Afghanistan, Prov. Nengrahar, Povolny & Tenora, 42(24).3.66, Kama, 40 km NO Jalalabad, 580 m, Invent N 740/ent (MMB).

Holotype. ♂, *Notiphila iranica* sp. n., det. Canzoneri S., det. Meneghini D., Iran, Stagno parco Com.Mar 17-18-IV-56, A. Giordani Soika, Museo Civico di Stoeia Naturale di Venezia, Matriale tipico descritto, Inv.n.03382.

Paratype. ♀, *iranica* nov., det. Canzoneri S., det. Meneghini D. Iran, Abadan Aerop. Rive shatt Arab., carex e terr.nudo, 16-IV-56, A. G. Soika (MCV).

Material. Iran: 1 ♂, 1 ♀, 4.III.1904 (Zarudny), Coll. A. Semenov-Tian-Shansky; 1 ♀, Persia 3.III.1904 (Zarudny) (ZISP).

Diagnosis. Close to *N. setigera* Becker. The species with grey general coloration, distinguished mainly by the next characters: 3 rather strong facial setae, tibiae yellow, antennae yellow, third antennal segment weakly darkened, abdomen with 4 small widely isolated spots.

Description. Medium sized flies, body length 3.8 mm. Head: 1 reclinate bristle and 1 proclinate hair; postfrons ratio about 1:1.5; prefrons ratio 2:1; eye-to cheek ratio 3:1; 3 facial setae. Face coloration grey, coloration of frons golden, palpi yellow, antennae yellow, third antennal segment apically slightly darkened. Thorax: grey with double very thin and brownish central stripe on scutum, brownish anepisternal spot. Halteres yellow. Mid coxae with 1 long bristle. Mid femora without posteroventral comb of bristlike setae. Tibia yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow with 2 darkened apical tarsomeres. Abdomen: tergites with 4 small distinct widely separated spots. Genitalia: surstyli short; aedeagus curved, narrow; aedeagal apodeme convex.

Distribution. The species was described from Afghanistan (Dahl, 1973). Registered in Iran.

***Notiphila flavoantennata* M. Krivosheina, sp.n.**
(Figs 34-36)

Holotype. ♂, Амурск. обл., г. Зея, 20.VI.1978 (А.Шаталкин) (Russia: Amur Region, town Zeja, 20.VI.1978 (A. I. Shatalkin)) (ZMUM).

Paratypes. 5 ♂, the same label; 2 ♂, Amur region, Zeja, 29.VI.1981 (A. L. Ozerov); 5 ♂, Southern Primorje, 40 km SE Ussurijsk, 3.VII.1985 (A. L. Ozerov); 5 ♂, the same place, 26.VII.1984, 18.VII.1984, 30.VII.1983, 9.VIII.1983, 9.VIII.1983 (A. L. Ozerov); 2 ♂, 2 Tylymynsk. nasleg, Jakutsk.okrug, 2.VII.1925 (L. Bianki); 1 ♂, Lake Keedey, path to river Amga, Jakutsk. okrug, 15.VII.1925 (L. Bianki) (ZMUM); 1 ♂, Irkutsk, 892 (Ahnger) (MZH).

Diagnosis. Resembling *N. aquatica* Becker. The species with brown general coloration, distinguished

mainly by the next characters: face grey, antennae yellow, cheeks narrow, scutum sometimes with 2 indistinct stripes, tibiae black with yellow bases and apexes.

Description. Medium sized flies, body length 3.4 mm. Head: 1 strong reclinate and 1 weak proclinate setae; postfrons ratio 1:2; prefrons ratio 1.1:1; eye-to cheek ratio 5.4:1; 3 facial setae. Face coloration grey, frons brown; palpi yellow, antennae yellow-orange, not darkened. Thorax: brown, sometimes with 2 stripes on scutum and spots in the base of setae. Halteres yellow. Fore coxae with 1 seta, mid coxae with 1 seta. Mid femora with a comb of bristlike setae. Tibiae black with yellow bases and apexes. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: tergites shining with 4 indistinct spots. Genitalia: surstyli fused in base, aedeagus long.

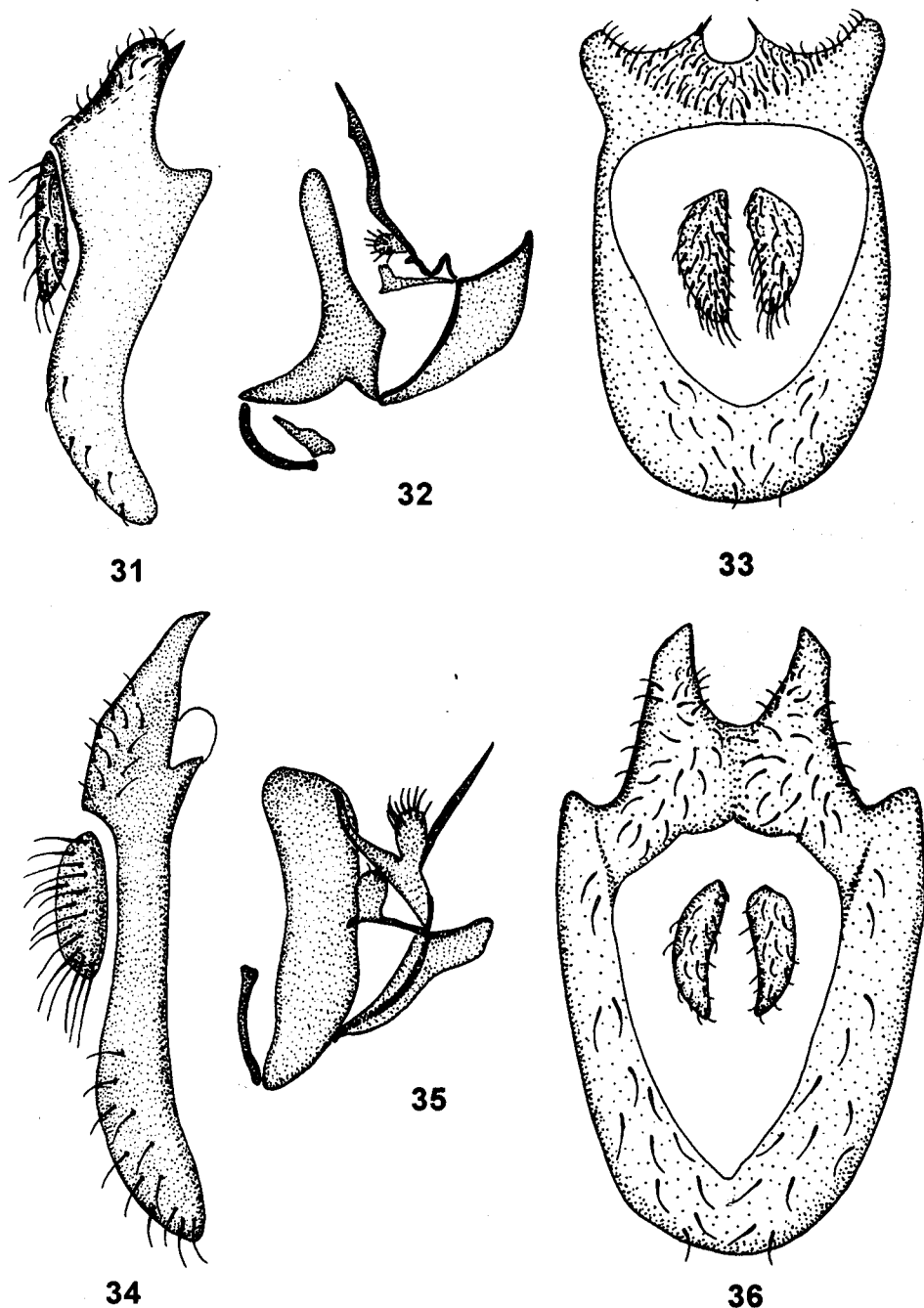
Distribution. Russia: Far East, Southern Primorje; East Siberia.

***Notiphila (Notiphila) graecula* Becker, 1926**
(Figs 37-39)

Notiphila graecula Becker, 1926: 13.

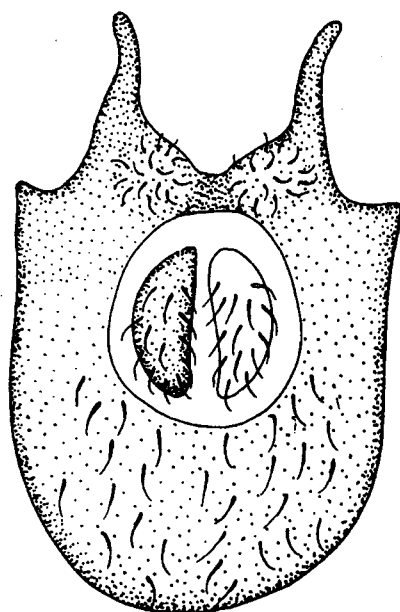
Lectotype. ♂, by present designation, labelled: Patras, IV 50057 (ZMMHU).

Material. Afghanistan: 1 ♂, Chvada Sonalin No A 1146, 15.5.1961, Afghanistan (K.Lindberg) (ZIL). Armenia: 9 ♂, 27 ♀, Parakar, 11.IX.1962 (V. A. Rikhter); 1 ♂, Dzhervezh, 12.IV.1958 (V. F. Zaitzev) (ZISP). Austria: 1 ♂, Manhartsberg, Nied. Osterr.765, *maculata* Stenh. (ZMHU). Czech Republik?: *Notiphila maculata* Stenh, m, Kowarz det, 765 (ZISP). Denmark: 1 ♂, Stag (ZIL). Finland: 1 ♀, Helsingfors 44020 (MZH). Germany: 1 ♀, Thuringen 39408, *Notiphila gutticentris*; 1 ♀, Harz, Coll. H. Loew (ZMHU). Kazakhstan: 5 ♂, 6 ♀, Paseka Zubenko, B. Almatinka, Semir., 30.VIII.1928 (Shnitnikov); 3 ♂, 3 ♀, Priutsk. kol. B. Almatinka, Semir., 1.VIII.1928 (Shnitnikov) (ZISP). Kirghizhia: 1 ♂, Belovoda Sretenka, 3.VI-10.VIII.1931 (L. Zimin). Poland: 1 ♀, Kohlfurt (Węliniec), 25/6 3180. Russia: Leningrad Region, Vyborgskij District, island Bolshoj Berezovyy, 16.VI.1980 (M. N. Kandybina); 1 ♂, near Leningrad, 5.VII.1984 (M. G. Krivosheina); 6 ♂, Caucasus, N. Ossetia, 15 km S Alagir, 11.VII.1990 (A. L. Ozerov); 4 ♂, Caucasus, N. Ossetia, near Alagir, 18.V.1990 (A. L. Ozerov) (ZISP, ZMUM). Spain: 1 ♂, La Granja, VII-1934 (Gil Collado) (MNCN). Ukraine: Valley Salgir, Krym, 22.VII.1899 (Bazhenov); 1 ♂, Alushta, Tauria, USSR, 17.VIII.1955 (B. B. Rohdendorf); 1 ♂, near Simferopol, Krym, 21.VII.1899 (Bazhenov); 1 ♂, Odessa reg., Tiligul lim., 11.VII.1926 (Zimin); 1 ♂, near Rybachje, Dnepro-Bug lim., 13.VII.1977 (Klechkovskij); 1 ♂, Petropavlovka, Pavlogr. u., 14.VI.1913 (Verescagin) (ZISP, ZMUM).

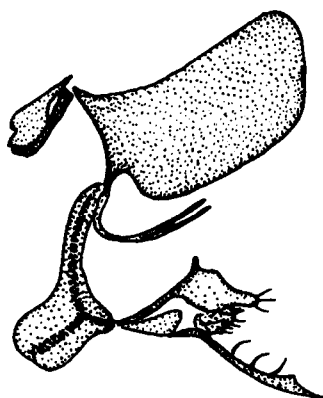


Figs 31–36. *Notiphila* Fallén.

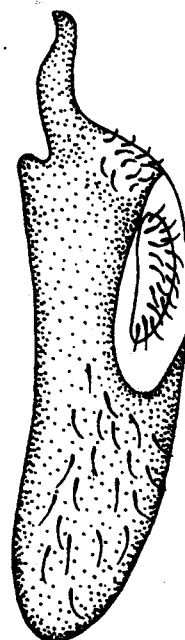
31–33, *N. flava* Dahl: 31, epandrium, lateral view; 32, internal male genitalia, lateral view; 33, epandrium, dorsal view. 34–36, *N. flavoantennata* sp. n.: 34, epandrium, lateral view; 35, internal male genitalia, lateral view; 36, epandrium, dorsal view.



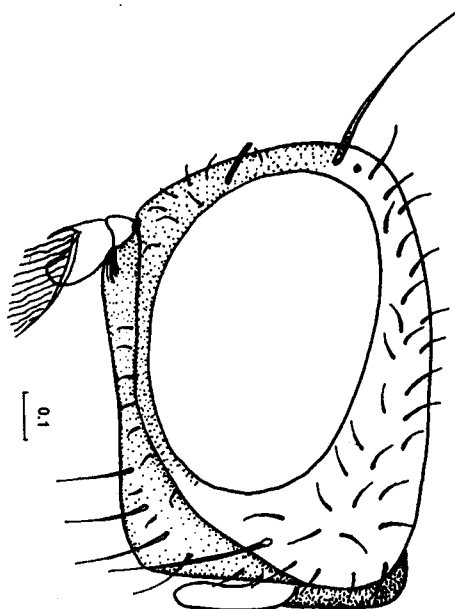
37



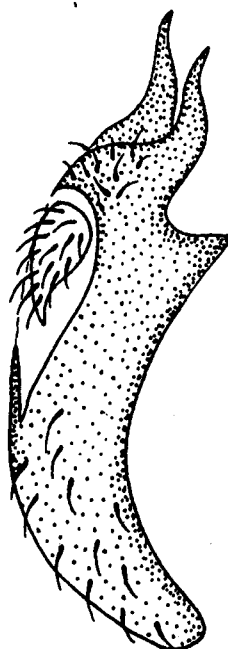
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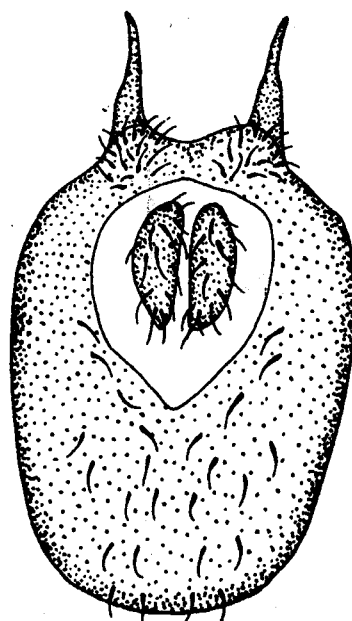
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40



41



42

Figs 37–42. *Notiphila* Fallén.

37–39, *N. graecula* Becker: 37, epandrium, lateral view; 38, internal male genitalia, lateral view; 39, epan-
drium, dorsal view. 40–42, *N. guttiventris* Stenhammar: 40, head, lateral view; 41, epan-
drium, lateral view; 42, epan-
drium, dorsal view.

Diagnosis. Close to *N. cinerea* Fll. The species with golden general coloration, distinguished mainly by the next characters: antennae grey, third antennal segment apically darkened; fore tibiae yellow, with grey indistinct band, mid and hind tibiae yellow.

Description. Medium sized flies, body length 3.5 mm. Head: 1 reclinate bristle; postfrons ratio about 2:3; prefrons ratio 1.4:1; eye-to-cheek ratio 4:1; 4 facial hairs; face coloration grey, coloration of frons brown. Palpi yellow; antennae dark yellow, third antennal segment apically darkened. Thorax: grey with indistinct brownish central stripe on scutum, brownish anepisternal spot. Halteres yellow-white. Mid coxae with 1 long and a row of short setae. Mid femora with a row of thin setae. Fore tibiae yellow with grey band, mid tibiae yellow, hind tibiae greyish. Mid tibiae with 3 dorsal bristles. Tarsi yellow with darkened apical tarsomeres. Abdomen: tergites with 4 small spots. Genitalia: surstyli long, narrow, apically curved; aedeagus broad; aedeagal apodeme curved.

Distribution. The species was described from Greece (Becker, 1926). Widely distributed in Europe, Russia: European part, Caucasus. Armenia, Kazakhstan, Kirghizia, Afghanistan.

Notiphila (Notiphila) guttiventris

Stenhammar, 1844

(Figs 40–42)

Notiphila (Notiphila) guttiventris Stenhammar, 1844: 206.

Lectotype. ♂, by present designation, labelled: O.G. Sthr (NRS).

Paralectotypes. 2 ♂, 2 ♀, O.G. Sthr., 1 ♂, O.G. P. Wg. (NRS); 3 ♂, 1 ♀, Types 1573 a,b,d,e (ZIU).

Material. **Poland:** 1 ♂, 4 ♀, Polska Owczary, distr. Busko, Stonawisko, 4.VI.1975 (R. Szadziński) (ZATW); 2 ♂, 3 ♀, *guttiv.* Stenh* Coll. H. Loew, (1 ♀-14378) (ZMHU). **Sweden:** 1 ♀, *guttiventris* a Stenh. ♀; 1 ♀ *N. guttiventris* Stenh. (ZIL).

Diagnosis. The species with grey strongly pollen general coloration, distinguished mainly by the next characters: face concave in profile, first and second antennal segments black, third yellow, apically darkened, arista dark yellow, tibiae yellow, abdomen grey, pollen with 2 small median spots.

Description. Medium sized flies, body length 3.7 mm. Head: 1 reclinate bristle and 2 proclinate hairs; postfrons ratio about 1:1.2; prefrons ratio 1.5:1; eye-to cheek ratio 3.8:1; 3 facial setae; eyes round. Face coloration grey, coloration of frons grey. Palpi yellow; first and second antennal segments black, third antennal segment yellow, apically darkened. Thorax: grey, pollen, with small points in the base of setae. Halteres yellow. Mid coxae with 2 long bristles and

a row of hairs. Mid femora with posteroventral comb of bristlike setae. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow. Abdomen: tergites with 2 small spots. Genitalia: surstyli very thin, apically narrowing; aedeagus rounded.

Distribution. The species was described from Sweden (Stenhammar, 1844). Registered in Poland.

Notiphila (Notiphila) juncea Dahl, 1973

(Figs 43–45)

Notiphila juncea Dahl, 1973: 351.

Holotype. ♂, *Notiphila juncea* Dahl, O. Afghanistan, prov. Nengrahar, Povolny & Tenora, (42)24.3.66, Kama, 40 km NO Jalalabad, 580 m, Invent. N 741/ Ent. (MMB).

Material. **Afghanistan:** 1 ♂, (42) 24.3.66, Kama, 40 km NO Jalalabad, 580 m, O. Afghanistan, Prov. Nengrahar, Povolny and Tenora (MMB).

Diagnosis. The species with grey-brown general coloration, distinguished mainly by the next characters: eye-to-cheek ratio 4:1, first and second antennal segments black, third yellow, apically darkened, face and frons light brown, somewhat metallic shining, tibiae yellow, abdomen without distinct spots.

Description. Medium sized flies, body length 3.5–4.0 mm. Head: 1 reclinate bristle and 2 proclinate hairs; postfrons ratio about 1:1.5; prefrons ratio 2:1; eye-to cheek ratio 4:1; 4 facial hairs. Face coloration grey, coloration of frons golden. Palpi yellow; first and second antennal segments black, third antennal segment yellow, apically darkened. Eyes oval. Thorax: grey-brown, coloration of scutum damaged in holotype, anepisterna with brown spot. Halteres yellow. Fore coxae with 1 setae; mid coxae with 1 long bristle and a row of hairs. Mid femora with posteroventral row of rare bristlike setae. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow. Abdomen: tergites with 4 indistinct spots. Genitalia: surstyli very thin, cut and curved at apex; aedeagus elongated; aedeagal apodeme narrow.

Distribution. The species was described from Afghanistan (Dahl, 1973).

Notiphila (Notiphila) lenae

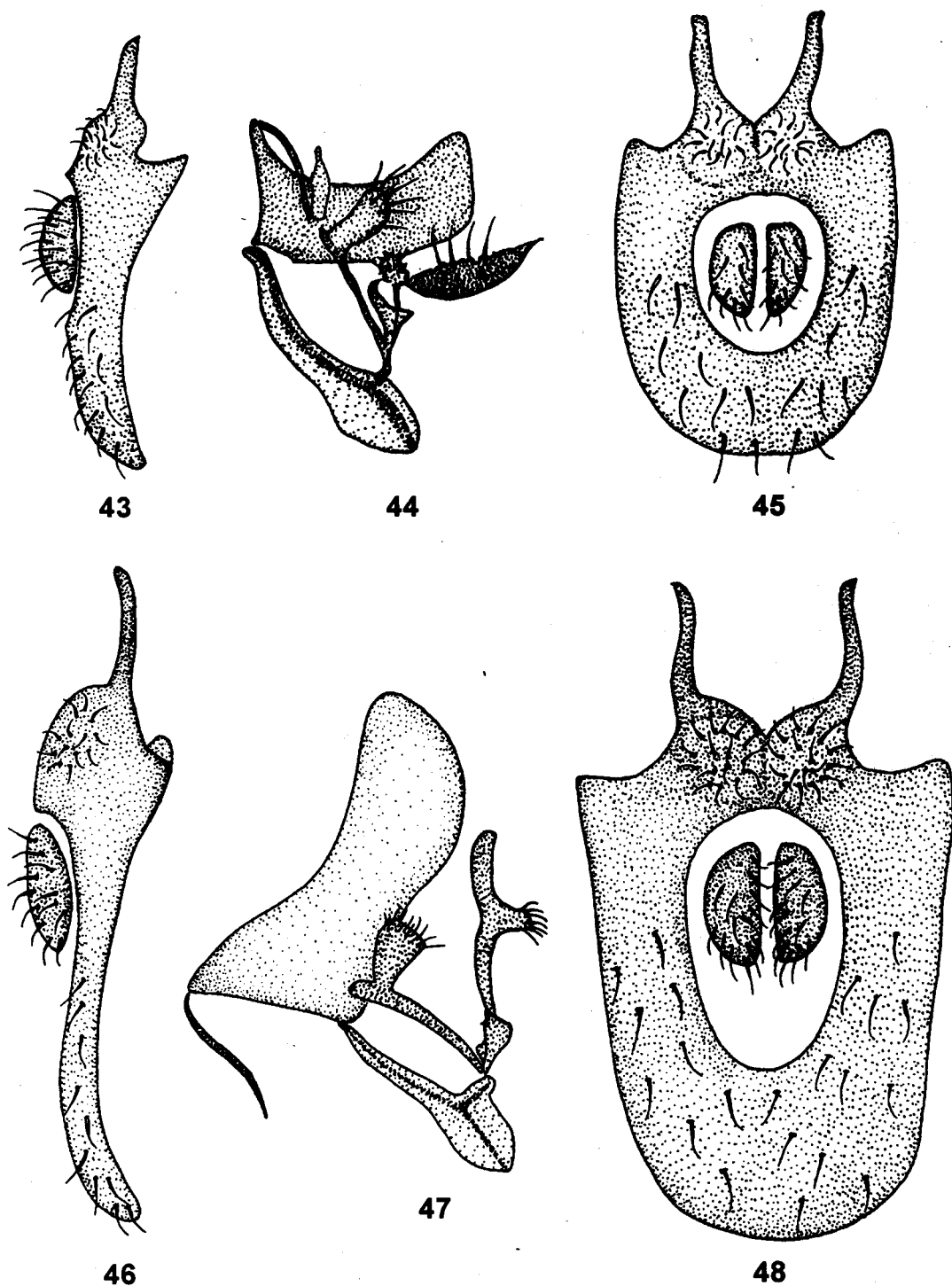
M. Krivosheina, sp. n.

(Figs 46–48)

Holotype. ♂, Юж. Приморье, оз. Хасан, 13.VII.1962 (Л.Зими́на) (Russia: Southern Primorje, lake Khasan, 13.VII.1962 (L. V. Zimina)) (ZMUM).

Paratypes. 3 ♂, 3 ♀, the same label (ZMUM).

Diagnosis. The species with brown general coloration, distinguished mainly by the next characters:



Figs 43–48. *Notiphila* Fallén.

43–45, *N. juncea* Dahl: 43, epandrium, lateral view; 44, internal male genitalia, lateral view; 45, epandrium, dorsal view. 46–48, *N. lenae* sp. n.: 46, epandrium, lateral view; 47, internal male genitalia, lateral view; 48, epandrium, dorsal view.

face broad, golden, antennae black, third antennal segment black with orange internal lightning in males and completely black in females, tibiae yellow with black bands.

Description. Medium sized flies, body length about 3.5 mm. Head: 1 strong reclinate bristle; postfrons ratio 1:1.5; prefrons ratio 1.1:1; eye-to cheek ratio 3:1; 3 short facial setae. Face concave in profile, coloration golden, not significantly contrasting to brown frons; frons with dark W-shaped spot; palpi yellow; first and second antennal segments dark, third – dark with orange lightning from inside in male, in female antennae completely black. Thorax: brown without stripes or spots. Wings brown. Halteres yellow. Fore coxae with 2 hairs and pubescence anteriorly, mid coxae with 1 seta. Mid femora without a comb of bristlike setae, only with a row of spinulae. Fore tibia black except the base and apex, mid and hind tibia yellow with black bands. Mid tibiae with 3 dorsal bristles. Fore tarsi dark, mid and hind tarsi yellow, apical tarsomeres darkened. Abdomen: tergites with 4 indistinct spots, slightly metallic shining. Genitalia: surstyli thin and curved; aedeagus elongated; aedeagal apodeme long.

Distribution. Russia: Far East, Southern Primorje.

Ethymology. The species is named in honour of the collector – Lena Viktorovna Zimina.

Notiphila (Notiphila) lyra

M. Krivosheina, sp. n.

(Figs 49–51)

Holotype. ♂, Южн. Приморье, 40 км ЮВ Уссурийска, 4.VI.1985 (A. Озеров) (Russia: Southern Primorje, 40 km SE Ussurijsk, 4.VI.1985 (A. L. Ozerov)) (ZMUM).

Diagnosis. The species with dark brown-grey general coloration, including dark-grey coloration of the lateral surface, distinguished mainly by the next characters: face golden-grey, contrasting to black frons, antennae black, third antennal segment yellow with darkened apex, tibiae black except bases and apices.

Description. Medium sized flies, body length about 3.0 mm. Head: 1 strong reclinate bristle and 1 proclinate weak short hair; postfrons ratio 1:1.5; prefrons ratio 1.4:1; eye-to cheek ratio 5:1; 3 facial setae. Face coloration golden-grey, contrasting to brown-black frons; orbitae dark-grey, narrow; palpi orange; first and second antennal segments dark, third – yellow with darkened apex. Thorax: brown-grey without stripes, small brown anepisternal spot. Halteres orange with yellow knob. Fore coxae black with several rows of hairs, mid coxae with 2 setae. Mid femora with a comb of bristlike setae. Tibiae black except the bases and apices. Mid tibiae with 3 dorsal bris-

ties. Fore tarsi dark, mid and hind tarsi yellow, apical tarsomeres darkened. Abdomen: tergites with 4 fused spots. Genitalia: surstyli lyra-like; aedeagus relatively broad; aedeagal apodeme triangulate.

Distribution. Russia: Far East, Southern Primorje.

Notiphila (Notiphila) maculata

Stenhammar, 1844

(Figs 52–54)

Notiphila (Notiphila) maculata Stenhammar, 1844: 201.

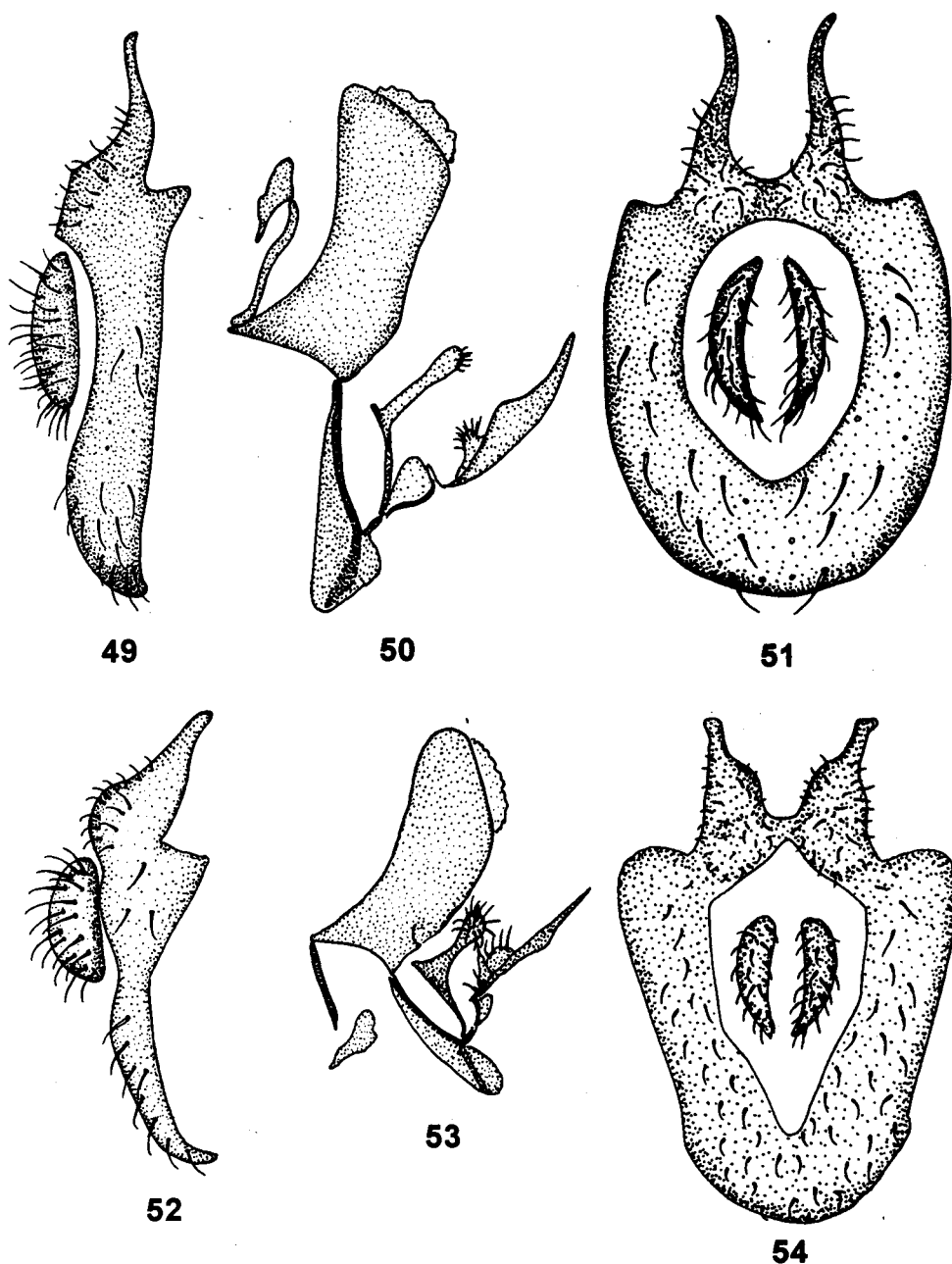
Notiphila supposita Collin, 1911: 183, syn. nov.

Lectotype. ♂, by present designation, labelled: O.G., Bhm. (NRS).

Paralectotypes. 4 ♂, O. G., Bhm; 6 ♀, Hlm, Bhm; 2 ♂ Hlm., P. Wg.; 1 ♂, Hlm., Bhm (NRS); 1 ♀, *N. maculata* Stenh. a Stenh. (ZIL); 4 ♀, in drawer 2 (ZIU).

Material. Germany: 1 ♂, Berlin, Schildhorn, 17.VII.04, coll. Lichtwardt (DEI). Kazakhstan: 1 ♂, Paseka Zubenko, Almatinka, Semir., 20.VIII.1928 (Shnitnikov) (ZISP). Poland: 2 ♂, Kaltwasser (Zimna Woda), 24/7 29253, 11/6 28445; 2 ♀, 11.6. 28444, 28495, 34735; 1 ♂, Liegnitz (Legnica) 6.34497; 1 ♂, Liegnitz (Legnica) 5.34461; 1 ♂, Rothkirch. (Czerwony Kosciol) 10/7 29143, 16/8 27556, 11/6 31470, 18/8 31471; 1 ♀ Polonia; 2 ♂, Coll. H. Loew; 1 ♂, *maculata* Stenh*, Coll. H. Loew; 1 ♀, 14379, *Notiphila maculata* Stenh.*; 1 ♀, *maculata* Stenh.*; 1 ♀, Silesia Jul.58, Coll. H. Loew; 7 ♀ Coll. H. Loew; 2 ♂, Coll. H. Loew; 1 ♀, 13924 *venusta* Lw ♀; 1 ♀, Wustung b. Habelswerdt (Bystrzyca Kłodzka) O. I. Duda *venusta* Lw. ♀; 1 ♂, Gleiwitz (Gliwice) OS. I. Duda, *N. maculata* Stenh. ♂ (ZMHU). Russia: 1 ♂, 3 ♀, Luga, NW Russia, 8.VII.934, 16.VII.932 (A. A. Stackelberg); 1 ♂, Sablino, Petrograd, 17.VII.923 (A. A. Stackelberg); 13 ♂, 1 ♀, near Leningrad, 3.VII.1984 (M. G. Krivosheina); 1 ♀, Fan-der-Flit, Luga, Leningrad Region, 17.VII.1963 (A. A. Stackelberg); 1 ♂, 1 ♀, Berditsyno, Jaroslav u., 1.VII.907 (A. I. Jakovlev); 1 ♂, 1 ♀, Moscow, Izmailovo, 19.VI.1984 (M. G. Krivosheina); 5 ♂, 1 ♀, Moscow Region, Puscino, 27.VI.1984 (M. Krivosheina); 1 ♂, Moscow Region, Golitsyno, 18.VI.1977 (A. I. Shatalkin); 1 ♂, Rostov Region, Margaritovka, 27.V.1953 (B. M. Mamaev); 2 ♀ Ural VI, 58777, 58778; 1 ♀, Ural, VII 58779. Ukraine: 7 ♂, Lumshory, Karpaty, 27.VII.1964 (K. B. Gorodkov); 1 ♂, Uzhgorod, between Dubki and Guta, 27.VIII.1964 (K. B. Gorodkov); 1 ♀, Tereshki, Kiev Region, Skvirsk.u., 2.VII.1901 (J. Vagner).

Diagnosis. The species with grey general coloration, distinguished by 3 distinct brown stripes on scutum and anepisternal spots; brown small punctuation is often developed in the base of thoracal setae.

Figs 49–54. *Notiphila* Fallén.

49–51, *N. lyra* sp. n.: 49, epandrium, lateral view; 50, internal male genitalia, lateral view; 51, epandrium, dorsal view. 52–54. *N. maculata* Stenhammar: 52, epandrium, lateral view; 53, internal male genitalia, lateral view; 54, epandrium, dorsal view. Abbreviations as in Figs 1–3.

Description. Medium sized flies, body length about 3.7 mm. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 1.3:1; prefrons ratio 1.5:1; eye-to cheek ratio 5:1; 3–4 weak facial hairs. Face coloration grey, not contrasting to coloration of frons; frons with black W-shaped spot, sur-

rounding ocellar triangle; orbitae light; palpi yellow; first and second antennal segments black, third – yellow, with darkened apical half. Thorax: grey with 3 distinct brown stripes on scutum, a stripe on postpronotum and brown spot on anepisternum, besides this with brown punctation in the bases of thoracal setae.

Halteres yellow. Fore coxae grey with 5–6 weak setae anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with posteroventral row of bristlike setae. Tibiae yellow with indistinct grey bands, occupying about 1/3 of their length. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: tergites with 2 spots. Genitalia: surstyli narrow with the most apex broadened and curved, aedeagus broad.

Distribution. The species was described from Sweden (Stenhammar, 1844). Common in Europe. Russia: European part. Kazakhstan. Not rare.

Notiphila (Notiphila) major Stenhammar, 1844
(Figs 55–56, 81)

Notiphila (Notiphila) major Stenhammar, 1844: 196.

Lectotype. ♀, by present designation, labelled: Dlc. Alp. Bhr., 21, 172/57 (NRS).

Material. Russia: 2 ♀, between river Malyj Ural and lake Varcha-Ty, Obdor. tundra, 27.VIII.925 (Fridolin); 1 ♂ near Mondy, Sajan Mount., birch forest, 17.VIII.1962 (K. B. Gorodkov) (ZISP). Sweden: 1 ♀, *N. major* Bh.; 1 ♀, *cinerea*, Zett. Ins. Lapp. coll. (ZIL); 1 ♂, T. lpm. Öv Soppero, 21.VII. strand Carex nr 39, Chloropidundersön ningarna 1955 (H. Andersson); 1 ♂ S to Abisko Nissejaure Sjö 16.7.1983 2484 (H. Andersson) (ZIL).

Diagnosis. The species with grey general coloration, distinguished by high cheeks, the length of the body – to 7 mm and greenish-grey slightly shining abdomen without brown spots.

Description. Body length about 7.0 mm; body grey pollen; eye-to cheek ratio 2:1. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 2:3; prefrons ratio 1:1; eye-to cheek ratio 2:1; 3 normal and 1 short facial hairs. Face coloration grey, not contrasting to coloration of frons; face with double furrows; frons grey; palpi yellow; first and second antennal segments black, third – mainly black except the most base. Thorax: coloration damaged in lectotype, in the rest of examined specimens grey without stripes or spots. Halteres yellow. Fore coxae grey with 2 setae anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with posteroventral row of bristlike setae. Tibiae black with yellow bases. Mid tibiae with 4 dorsal bristles. Tarsi yellow-brown, dorsally darkened. Abdomen: tergites greyish pollen, slightly greenish shining, without spots. Genitalia: surstyli narrowed apically; aedeagus relatively broad, aedeagal apodeme convex.

Distribution. The species was described from Sweden (Stenhammar, 1844). It is registered in Russia from Ural and Siberia. Rare.

Notiphila (Notiphila) maritima

M. Krivosheina, sp. n.

(Figs 57–59)

Holotype. ♂, Южн. Приморье, Лазовский район, окр. Лазо (А.Озеров) (Russia: Southern Primorje, Lazovskij District, near Lazo, 4.VIII.1986 (A. L. Ozerov) (ZMUM).

Paratypes. 4 ♂, Nagonogo, Nippon, Japan, 1.IX.1917 (Roshkovsky) (ZISP, ZMUM).

Diagnosis. Resembling *N. aquatica* Becker. The species with dark brown-grey general coloration, distinguished mainly by the next characters: face grey, antennae yellow, cheeks narrow, scutum with indistinct marble picture, tibiae yellow with dark bands.

Description. Medium sized flies, body length 3.7 mm. Head: 1 strong reclinate seta; postfrons ratio 1:1.4; prefrons ratio 1.1:1; eye-to cheek ratio 6:1; 3 facial setae, becoming shorter to ventral. Face coloration grey, frons brown-black; orbitae grey; palpi yellow; antennae yellow with third segment darkened. Thorax: brown with indistinct marble picture, anepisterna with brown band. Halteres yellow. Fore coxae pubescent, mid coxae with 1 seta and a row of short hairs. Mid femora with a row of bristlike setulae. Tibiae yellow, fore tibiae with dark band on the apical half, mid and hind tibiae with narrow dark median bands. Mid tibiae with 3 dorsal bristles. Tarsi yellow with black setae, fore tarsi darkened, mid and hind tarsi with darkened apical segments. Abdomen: tergites with 4 spots. Genitalia: surstyli hooked, aedeagus relatively broad; aedeagal apodeme long.

Distribution. Russia: Southern Primorje; Japan.

Notiphila (Notiphila) mima Canzoneri et Meneghini, 1979

(Figs 60–62)

Notiphila mima Canzoneri et Meneghini, 1979: 202.

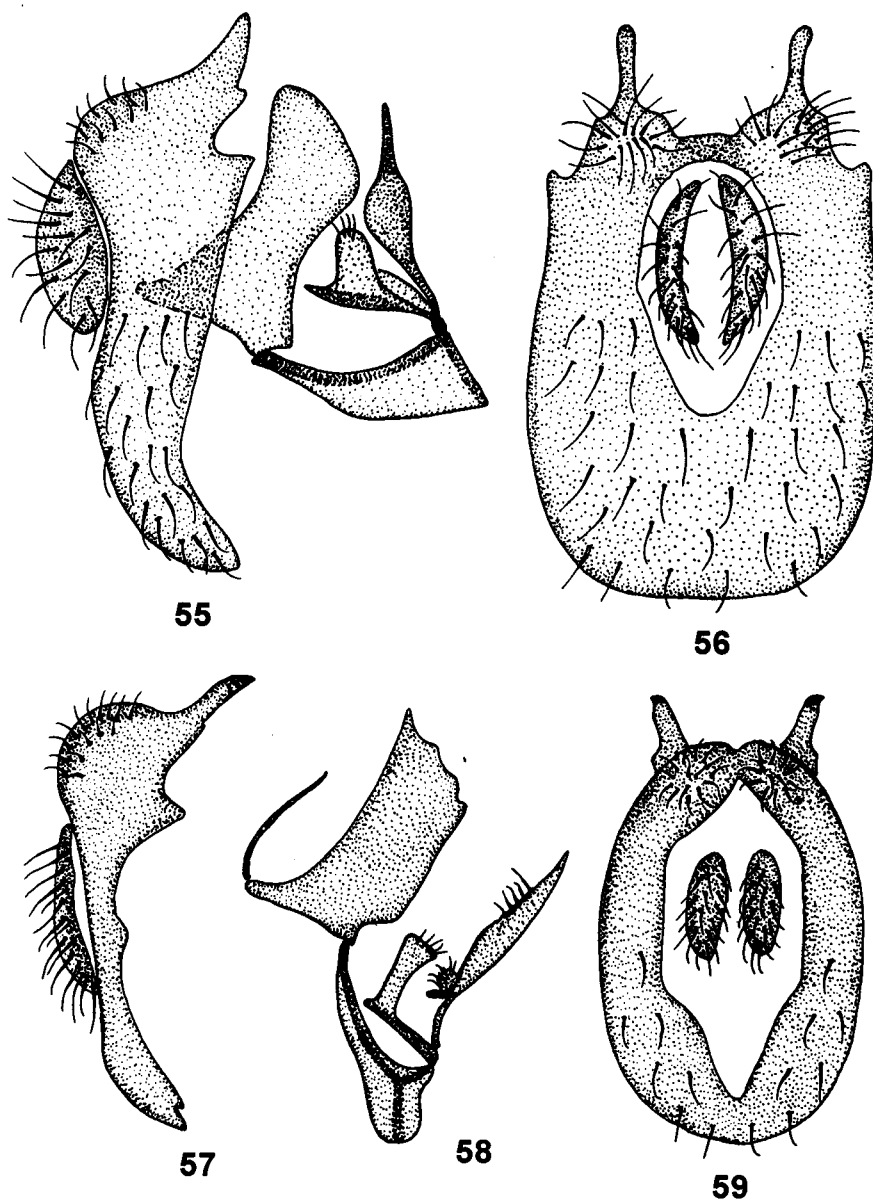
Holotype. ♂, *Notiphila* ♂ *mima* nov., det. Canzoneri S., det. Meneghini D., Laguna VENETA, S. Ginliano Scirpetum terreno nudo 8.V. 47 A. Giordani Soika, Museo Civico di storia Naturale di Venezia, Materiale tipico descritto, Inv. n. 03410.

Allotype. ♀ with the same label.

Paratype. ♀, *mima* nov., det. Canzoneri S., det. Meneghini D., 03413, Laguna VENETA Recherche lagunari, 1944–48 Siaz.terr. N590 (MCV).

Material. Mongolia: 6 ♂ Bajan-Khongorsk. Aimak, Ekhin-Gol, 11–14.VIII.1969 (V. F. Zaitzev). Russia: 1 ♂, Zabaikalje, Berzin.reg., 20 km E Dauria, lake Bar-Araltuj, 6.VI.1943 (Dubinin) (ZISP, ZMUM).

Diagnosis. The species with brownish general coloration, distinguished by the next characters: face

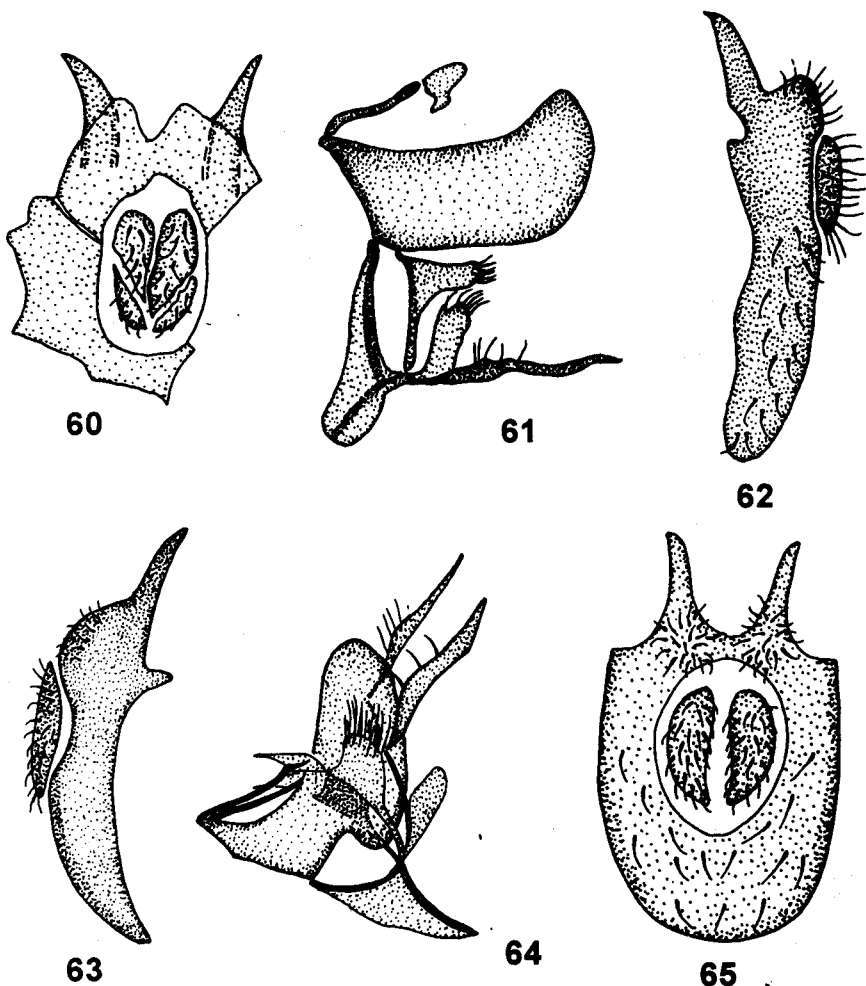
Figs 55–59. *Notiphila* Fallén.

55–56, *N. major* Stenhammar: 55, epandrium and internal male genitalia, lateral view; 56, epandrium, dorsal view. 57–59, *N. maritima* sp. n.: 57, epandrium, lateral view; 58, internal male genitalia, lateral view; 59, epandrium, dorsal view.

slightly concave in profile, fore tibiae dark, abdomen without distinct spots (possibly 2 spots), slightly shining.

Description. Medium sized flies, body length 3.2 mm. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 1:1; prefrons ratio 1.3:1; eye-to cheek ratio 4:1; 3 weak facial hairs. Face coloration grey, orbitae grey, frons with W-shaped black spot, ocellar triangle brownish. Palpi yellow; first

and second antennal segments black, third – yellow, with darkened apical half. Thorax: grey without stripes or spots, anepisterna with indistinct brownish spot, sometimes with brown punctation in the bases of thoracal setae. Halteres yellow. Fore coxae grey with 2 setae anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with posteroventral row of bristlelike setae. Fore tibiae dark except the most base and apex, mid tibiae yellow, hind tibiae yellow

Figs 60–65. *Notiphila* Fallén.

60–62, *N. mima* Canzoneri et Meneghini: 60, epandrium, lateral view; 61, internal male genitalia, lateral view; 62, epandrium, dorsal view. 63–65, *N. nigricornis* Stenhammar: 63, epandrium, lateral view; 64, internal male genitalia, lateral view; 65, epandrium, dorsal view.

with dark median band, occupying about 1/2 of tibia. Mid tibiae with 3 dorsal bristles. Fore tarsi dark, mid and hind – yellow, apical tarsomeres darkened. Abdomen: tergites without distinct spots, slightly shining. Genitalia: surstyli triangulate, aedeagus cigar-like, aedeagal apodeme long.

Distribution. The species was described from Italy. Registered in Mongolia and Russia: Siberia.

Notiphila (Notiphila) nigricornis
Stenhammar, 1844
(Figs 63–65)

Notiphila (Notiphila) nigricornis Stenhammar, 1844:
202.

Lectotype. ♂, by present designation, labelled: Type 1571c (ZIU).

Paralectotypes. 1 ♀, Hlm. PWg; 1 ♀, Hlm. Bhm; 1 ♀ O.G., Sthr. (NRS); 1 ♂, Type 1572a, 1 ♀ Type 1572d (ZIU); 1 ♀ *N. nigricornis* a Stenh ♀ (ZIL).

Material. **Armenia:** 1 ♂, E. mountainside of Kaludzhuk, about 2500 m (V. F. Zaitzev), 17.VIII.1959; 1 ♂, 21 ♀, Parakar, 11.IX.1962 (V. A. Rikhter); 3 ♂, 15 ♀, Gekhard, 23.VIII.1971 (V. A. Rikhter); 1 ♂, Dzhervezh near Erevan, 12.V.1938 (V. A. Rikhter) (ZISP). **Georgia:** 1 ♂, Tiflis, 10.IX.1909 (K. Satunin) (ZMUM). **Kazakhstan:** 3 ♂, 6 ♀, paseka Zubenko, B. Almatinka, Semir., 30.VIII.1928 (Shnitnikov) (ZISP). **Poland:** 5 ♂, Coll. H. Loew, 14376; 1 ♀ Coll. H. Loew; 2 ♀ Coll. H. Loew, (ZMHU). **Germany:** 1 ♀, Nordsh., Hoffmst. (Nordshausen) Coll. H. Loew (ZMHU). **Romania:** 2 ♀, Siebenburgen 7.39069, *nigricornis* Stenh.; 1 ♂, Siebenburgen, 7.39155 (ZMHU). **Russia:** 1 ♂, Vologda Region, Ust-Kubensk District, Nikolskoe, 10.VI.1983 (N. P. Krivosheina); 1 ♂, 1 ♀, Berdicyno, Jaroslav.u., 14.VII.1907 (A. I. Jakovlev);

1 ♂, Moscow, Izmailovo, 5.V.1983 (M. Krivosheina); 2 ♂, 2 ♀ "Kaukasus", 50418 VIII 15 ♂, 17 ♀, Caucasus, North Ossetia, Alagir, 29.V.1989 (A. L. Ozerov); 1 ♂, Caucasus, North Ossetia, Buron (Cey), 17.VIII.1988 (A. L. Ozerov); 14 ♂, Caucasus, 15 km N Ardon, 11.VII.1990 (A. L. Ozerov); 1 ♀, lake Ivan, 45 km NW Chita, Zabaik., 14.VII.1925 (Vinogradov); 1 ♀, "Russland", 35959, *nigricornis* Stenh. (ZISP, ZMUM, ZMHU). Syria: 1 ♂, 1 ♀, Damaskus, 45217 IV (ZMHU). Ukraine: 1 ♂, 1 ♀, Odessa, Krivaja Balka, 24.V.1926 (L. Zimin); 1 ♀, Salgir, Krym, 22.VIII.1899 (Bazhenov); 1 ♂, Donskaja Region, Provolskij Voiskovoj zavod, 17.VI.1908 (Troitskij) (ZISP, ZMUM). Tadjikistan: 1 ♂, Stalinabad (Dushanbe), Botanical Garden, 6.V.1943 (A. A. Stackelberg); 1 ♂, Stalinabad, Kafirnigan r., 10.IV.1943 (Gussakovskij); 2 ♂, 5 ♀, Khanaka, Gissar., 20.VII.1939 (L. Zimin); 1 ♂, 1 ♀, r.Kafirnigan, Ramid, 22.VII.1939 (A. Romanov); 1 ♂, Khoarefino, 14.IX.1964 (V. F. Zaitzev); 1 ♀, Stalinabad, 8.VII.1945 (Gussakovskij); 1 ♀, Devan, NW 24.VIII.1943 (Gussakovskij); 1 ♀, Kzyl-Tam, NW Gissar.Kh., 2080 m, 20.VIII.1933 (Veltishev). Turkmenistan: 10 ♂, 10 ♀, 40 km W Ashkhabad, 1-9.V.1984 (M. G. Krivosheina, A. L. Ozerov); 1 ♀, Kara-kala, Arpaklenskoje uscelje, 6-7.V.1932 (Petrisceva); 5 ♂, 5 ♀, Ashkhabad Region, Geok-Tepe District, Babarab, 1-20.V.1983 (M. G. Krivosheina) (ZMUM).

Diagnosis. The species with grey-brown general coloration, distinguished by velvety-black antennae and orange palpus.

Description. Body length about 3.0 mm; body grey-brown; eye-to cheek ratio 4:1. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 1:1.2; prefrons ratio 1.3:1; eye-to cheek ratio 4:1; 3-4 facial hairs. Face coloration bright grey, frons brown with W-shaped black spot; ocellar triangle golden, pollen. Palpi yellow; antennal segments velvety-black. Thorax: brownish without stripes or spots. Halteres yellow. Fore coxae grey with 2 setae anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with posteroventral comb of bristlike setae. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: tergites greyish pollen, with 2 spots. Genitalia: surstyli narrow; aedeagus bulbous; aedeagal apodeme convex.

Distribution. The species was described from Sweden (Stenhammar, 1844). Widely distributed in Palaearctic. Common.

Notiphila (Notiphula) nubila Dahl, 1973

(Figs 66-68)

Notiphila nubila Dahl, 1973: 352.

Holotype. ♂, *Notiphila nubila* Dahl, O. Afghanistan, Prov. Nengrahar, Povolny & Tenora, (42)24.3.66, Kama, 40 km NO Jalalabad, 580 m, Invent. N 746/ Ent (MMB).

Material. Afghanistan: 1 ♂, Bend-Karghah, at Kaboul, NO A 1095 Alt 2200 m, 23.8.1962 (K. Lindberg) (MZH). Poland: 1 ♂, Polska Iwczary, K.Busca, Stonawisco, 4.VI.1975 (R. Szadziwski)(ZATW). Tadjikistan: 7 ♂, Dzihilikul, Preserve Tigrovaja Balka, 18.IV.1988 (M. G. Krivosheina). Turkmenistan: 1 ♂ Ashkhabad, lake Sportivnoje, 22.V.1984 (M. Krivosheina). Spain: 1 ♂ La Cava, Tarragona, VII-1926 (J. Gil) (MNCN).

Diagnosis. The species with brown general coloration, distinguished by dark yellow antennae, darkened dorsally; brown face and frons, so that the head seems uniformly brown. Fore coxae, all tibiae and tarsi yellow.

Description. Body length 3.8-4.0 mm; body brownish; eye-to cheek ratio 4:1. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 1:1.5; prefrons ratio 1.5-2:1; eye-to cheek ratio 4:1; 3 facial hairs. Face coloration brown-grey, not contrasting to brown frons. Palpi yellow; antennal segments dark yellow, second and third antennal segments apically darkened. Thorax: brownish (with damaged coloration in all the specimens). Spots in bases of setae on scutum. Halteres yellow. Fore coxae grey with 2 setae anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with a row of rare bristlike setae. Tibiae and femora apexes yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: coloration damaged. Genitalia: surstyli resembling graecula, but not rounded apically, with median dent.

Distribution. The species was described from Afghanistan (Dahl, 1971). Registered in Poland, Spain, Tadjikistan, Turkmenistan. Common.

Notiphila (Notiphila) pollinosa

M. Krivosheina, sp. n.

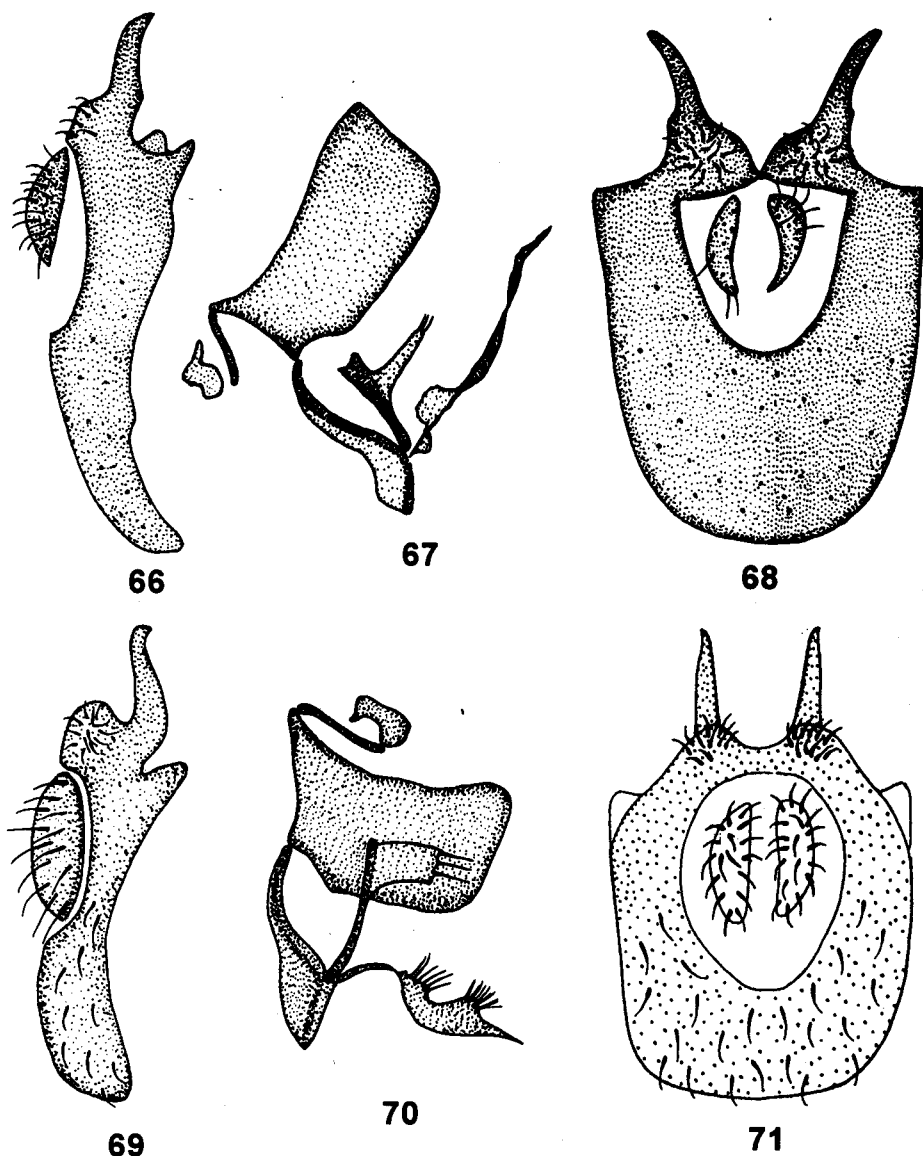
(Figs 69-71)

Holotype. ♂, Южн. Приморье, 40 км SO Уссурийска, 9.VIII. 1983 (A. Озеров) (Russia: Southern Primorje, 40 km SO Ussurijsk, 9.VIII.1983 (A. L. Ozerov)) (ZMUM);

Paratypes. 2 ♂, the same place, 3.VII.1985 (A. L. Ozerov); 1 ♂, Atbasar, Kazakhstan, Dzabaj, 8.VIII.1936 (Resvoj) (ZMUM); 3 ♂, Karlö (R.Frey), NN 1914, 3301, 3654; 1 ♂, Finland 705: 25 Om Jakobstad, 21.VII.1955 (R. Storå) (ZMH).

Diagnosis. Strongly pollen species with grey-golden general coloration, face slightly concave in profile, tibiae yellow, hind tibiae with dark band.

Description. Body length 3.4 mm; body strongly pollen, golden-grey; eye-to cheek ratio 4:1. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 1:1.2; prefrons ratio 1:1; eye-to



Figs 66–71. *Notiphila* Fallén.

66–68, *N. nubila* Dahl: 66, epandrium, lateral view; 67, internal male genitalia, lateral view; 68, epandrium, dorsal view. 69–71, *N. pollinosa* sp. n.: 69, epandrium, lateral view; 70, internal male genitalia, lateral view; 71, epandrium, dorsal view.

cheek ratio 4:1; 3 strong facial hairs and 3 more very short. Face slightly concave. Face coloration grey-golden, not contrasting to frons. Palpi yellow; first and second antennal segments black, third antennal segment yellow, apically darkened. Thorax: grey-golden. Spots in bases of thoracal setae present. Halteres yellow. Fore coxae with 2 setae, mid coxae with 1 seta. Femora apices yellow. Mid femora with a comb

of bristlike setae. Tibiae yellow, hind tibiae with dark band. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: segments 1–3 without spots. Genitalia: surstyli needle-like and narrow; aedeagus relatively broad; aedeagal apodeme curved.

Distribution. Russia: Far East; Kazakhstan; Finland.

Notiphila (Notiphila) quadrimaculata

Dahl, 1973

(Figs 72–74)

Notiphila (Notiphila) quadrimaculata Dahl, 1973: 352.

Holotype. ♂, *Notiphila quadrimaculata* Dahl, O. Afghanistan, Prov. Nengrahar, Povolny & Tenora, (42)24.3.66, Kama, 40 km NO Jalalabad, 580 m, Invent. N 751/Ent. (MMB);

Material. **Afghanistan:** 1 ♂, 8 ♀, (42) 24.3.66, Kama, 40 km NO Jalalabad, 580 m, O. Afghanistan, prov. Nengrahar, Povolny and Tenora (MMB). **Turkmenistan:** 1 ♂, Aschabad, 671 (Ahnger)(MZH).

Diagnosis. The species with grey-golden general coloration, eye-to cheek ratio 3:1; fore tibiae with black bands.

Description. Body length 4.0 mm; body golden-grey; eye-to cheek ratio 3:1. Head: 1 strong reclinate bristle and 1 proclinate short and weak one; postfrons ratio 1:1; prefrons ratio 2:1; eye-to cheek ratio 3:1; 3 facial hairs. Head in profile with frons, projecting forward in such a way, that antennae seem to be joint to the apex of triangle; face slightly concave. Face coloration golden-grey, not contrasting to brown frons. Palpi yellow; first and second antennal segments black, third antennal segment yellow with apically darkened half. Thorax: golden-grey. Spots in bases of setae on scutum present; anepisternum with brown spot. Coloration of scutum damaged. Halteres yellow. Fore coxa with 3 setae, mid coxae with 1 black seta. Femora apices yellow. Mid femora with a comb of bristlike setae. Fore tibiae yellow with black median 1/3; mid and hind tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: coloration damaged, greyish-brown. Genitalia: surstyli hooked with very short bases; aedeagus broadened; aedeagal apodeme massive.

Distribution. The species was described from Afghanistan (Dahl, 1973). Registered in Turkmenistan.

Notiphila (Notiphila) riparia Meigen, 1830

(Figs 75–77)

Notiphila (Notiphila) riparia Meigen, 1830: 65.

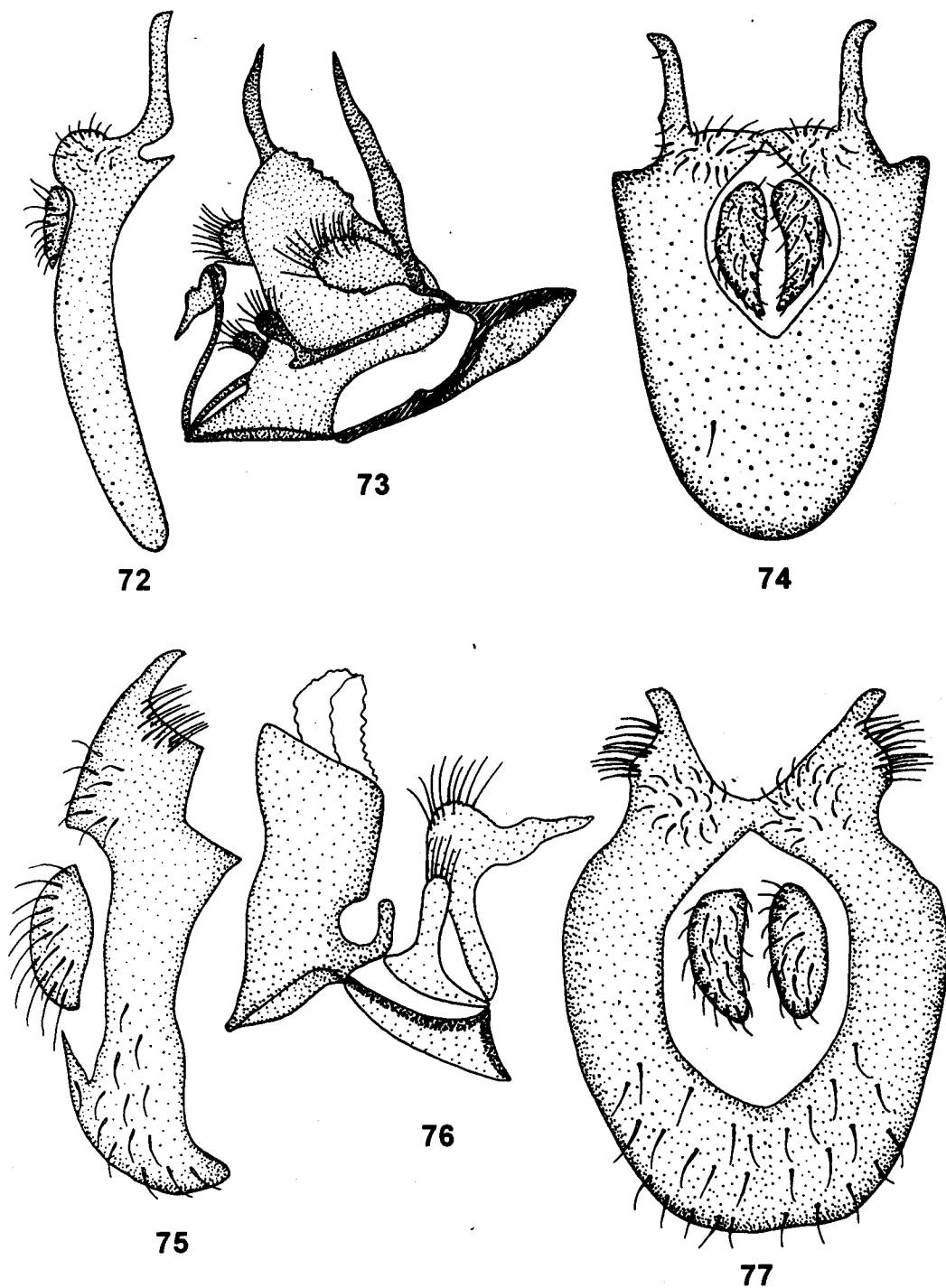
Lectotype. ♀, by present designation, labelled: *riparia* coll. Winth., white label "*riparia*"(NMW).

Material. **Armenia:** 1 ♀, Parakar, 11.IX.1961 (V. A. Rikhter) (ZISP). **Austria:** 1 ♀, Manhartsberg, Nied Osterr. (A. Siebeck) (ZMHU). **Belarus:** 1 ♀, Minsk, *riparia* Mg.; 1 ♀, Belovezhskaja Pusca, Brest Region, 17.VII.1961 (E. P. Nartschuk) (ZISP). **Estonia:** ♀, Peedu, Southern Estonia, 1.VII.1951 (A. A. Stackelberg) (ZISP). **Georgia:** 1 ♂, 4 ♀, Bakuriani (ZMUM). **Germany:** 2 ♂, 10 ♀, Halle 7.67; 6 ♂,

23 ♀, Rosenberg (O. Duda); Ilfeld, S. Hartz (O. Duda) (ZMHU); 1 ♂, Berlin, Grünewald, 5–97, Coll. Oldenberg (DEI). **Kazakhstan:** 1 ♂, 3 ♀, Dol. Basaga-usek, Akmolinsk Region, 29.VI.1957 (E. P. Nartschuk); 1 ♀, Priutsk. kolon.B, Almatinka, Semir., 1.VIII.1928 (Shnitnikov); 5 ♂, 5 ♀, Malokrasnojarsk, r. Irtysh, Semipalatinsk, 27.VII.1926 (Verescagin) (ZISP, ZMUM). **Latvia:** 1 ♂, 2 ♀, Riga Region, r. Lielura, 26.VI.1977 (A. I. Shatakin) (ZMUM). **Lithuania:** 3 ♀, Nidden (Nida) (ZMHU). **Morocco:** 1 ♂, Ait-Melloul pr.Qued, Sous 13–15.II.1961 (Meinander)(MZH). **Poland:** 2 ♂, 2 ♀, Kohlfurt (Węliniec), 25/6 31816, 31822, 14/7 41958, 31807; 1 ♀, Kaltwasser (Zimna Woda) 12/8 24379; 2 ♀, Polonia; 1 ♂, Liegnitz (Legnica) 16/6 13310; 1 ♀, Liegnitz (Legnica), 5/8 11866; 2 ♂, *riparia* Stenh.* 14381; 9 ♂, Polonia, Wroclaw, 04.06.1983 (T. Zatwarnicki); 4 ♂, Coll. H. Loew, 1 ♂, *riparia*; 12 ♀, Polen, 2713, 20.9.65, Dichaeta picta (*Scatophaga*) (Rinli W.); 1 ♀, l. Nimptsch.; 1 ♀, b. Nimptsch., 1 ♀, Wustung.(Bystrzyca Kłodzka), b. Habelswerdt, O. I. Duda (ZMHU). **Russia:** 2 ♂, Leningrad Region, 6.VII.1984 (M. G. Krivosheina); 1 ♂, Fan-Der-Flit, Luzhsk.u., 2.VII.925 (A. A. Stackelberg); 10 ♂, Luga, Leningrad Region, 15.VII.952 (A. A. Stackelberg); 1 ♀, Berdicyno, Jaroslav.u., 3.VII.907 (A. Jakovlev); 1 ♂, 7 ♀, Moscow Region, Puscino, 27.VI.1984 (M. G. Krivosheina); 3 ♂, 5 ♀, Moscow, Izmailovo, 5.VI.1983 (M. G. Krivosheina); 1 ♂, Moscow Region, 20 km WSW Volokolamsk, 55 59' N, 35 37' E, VIII.1996 (M. G. Krivosheina); 1 ♀, Moscow Region, Biserovo, 18.VII.1935; 1 ♂, Ostashkov, 14.VII.1936 (B. B. Rohdendorf); 1 ♂, 1 ♀, Kremenje-Tarbushevo, Kolom. u., 5.VI.1903; 1 ♀, Proskurov, Podolsk. gub., VII.1895 (Zubovskij); 1 ♂, 1 ♂, 6 ♀, Usmanskij bor, 25 km NNO Voronezh, 14.VII.1990 (A. E. Silina); 1 ♀, Ural VII 58776 1 ♀, 2 Zhemkonsk. nasl., Jakutsk Region, 8.VI.1925 (L. Bianki); 1 ♀, S. Chanka, Ussurijskij Kraj, 16.VII.1927 (Riabokon); 1 ♀, Island Zeleny, Kuril Islands, 2.VIII.1955 (N. A. Violovich); (ZISP, ZMUM, ZMHU). **Sweden:** 4 ♀, Hlm. Bhn.; 2 ♀, Sm. Bhn.; 2 ♀, Sc. Bhn.; 1 ♂, 1 ♀ Bh. PWg; 1 ♀, O.G.P.Wg (NRS); 1 ♂, *N. riparia* Stag.; 1 ♀, *N. riparia* Stag. ♀, 41; 1 ♀, *N. riparia* ♀, red label (near Lund); 1 ♀, *N. riparia* a Stenh. ♀; 1 ♀, *N. riparia* ♀, *N. macrocephala* Stenh. a Stenh. (ZIL). **Ukraine:** 1 ♀, Gorodisci, Voroshilovgrad Region, 19.VI.1952 (B. M. Mamaev); 1 ♂, Kilia, Izmail. u., Bessarab. g., 15.V.911 (Chernavin) (ZISP). **Uzbekistan:** Kzyl-Dzhar, 18 km E Kungrad, 16.VI.1938 (L. V. Zimina) (ZMUM).

Diagnosis. The species with greyish general coloration, distinguished mainly by the next characters: antennae yellow, with darkened third segment, tibiae yellow. Eye-to-cheek ratio 5.4:1.

Description. Medium sized flies, body length about 4.0 mm. Head: 1 strong reclinate bristle; postfrons ratio 1:1.5; prefrons ratio 1.5:1; eye-to cheek ratio 5.4:1; 3–4 facial hairs. Face coloration dark grey, slightly



Figs 72–77. *Notiphila* Fallén.

72–74, *N. quadrimaculata* Dahl: 72, epandrium, lateral view; 73, internal male genitalia, lateral view; 74, epandrium, dorsal view. 75–77, *N. riparia* Meigen: 75, epandrium, lateral view; 76, internal male genitalia, lateral view; 77, epandrium, dorsal view.

contrasting to golden frons; palpi yellow; first and second antennal segments yellow, third – yellow, with dark apical part. Thorax: grey-brown, anepisternum with short band. Halteres yellow. Fore coxae grey with 2 setae anteriorly, mid coxae with 1 seta. Mid femora with posteroventral comb of bristlike setae. Tibiae yellow, fore tibiae sometimes darkened, but always with yellow (not black) basic coloration; mid and hind tibiae with narrow dark bands. Mid tibiae with 3 dorsal bristles. Tarsi orange-yellow, apical tarsomeres darkened. Abdomen: tergites with 4 spots. Genitalia: surstyli narrowed apically, with a bun of hairs; aedeagus short; aedeagal apodeme convex.

Distribution. The species was described possibly from Europe (formerly Germany) (Meigen, 1830). Widely distributed in Palaearctic. Common.

Notiphila (Notiphila) semimaculata
Becker, 1926

(Figs 78-80)

Notiphila semimaculata Becker, 1926: 14.

Lectotype. ♂, by present designation, labelled: Beirut, 45390 IV *semimaculata* Becker, Typus, Zool. Mus. Berlin (ZMHU).

Paralectotype. 1 ♀, Beirut IV, 45389, Typus, *semimaculata* Becker (ZMHU).

Diagnosis. The species with golden general coloration, distinguished mainly by the next characters: antennae yellow, with darkened third segment, tibiae yellow, abdomen blue-green. Eye-to-cheek ratio 5:1.

Description. Medium sized flies, body length about 4.0 mm. Head: 1 strong reclinate bristle and 1 weak proclinate seta; postfrons ratio 1:1.5; prefrons ratio 1.3:1; eye-to cheek ratio 5:1; 4 weak facial hairs. Face coloration golden-grey, not contrasting to frons; palpi yellow; first and second antennal segments yellow, third – yellow, with dark thin apical part. Thorax: anterior part of scutum blue-grey, stripes hardly noticeable, lower anepisternum dark brown gradually becoming greyish apically, with brown band on apical half. Halteres yellow. Fore coxae grey with several setae anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with a comb of bristlike setae. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: tergites bluish-grey with 4 narrow oval spots, not contacting posterior margin of tergites. Genitalia: surstyli long, curved; aedeagus broadened; aedeagal apodeme long and narrow.

Distribution. The species was described from Lebanon (Becker, 1926).

Notiphila (Notiphila) setigera Becker, 1903
(Figs 82–83)

Notiphila setigera Becker, 1903: 167.

Lectotype. 1 ♂, by present designation, labelled: *setigera* Beck. (ZMHU).

Paralectotypes. 7 ♀, Kairo XI 44276 (2 ♀ with the label *setigera* Beck.) (ZMHU).

Diagnosis. The species with grey general coloration, distinguished mainly by the next characters: antennae yellow, with darkened third segment, facial setae strong, eye-to-cheek ratio 4.3:1; tibiae yellow.

Description. Medium sized flies, body length about 3.0 mm. Head: 1 strong reclinate bristle and 1 weak proclinate seta; postfrons ratio 1:1.2; prefrons ratio 1.2:1; eye-to cheek ratio 4.3:1; 3–4 facial setae. Face coloration grey, not contrasting to golden-grey frons; palpi yellow; first and second antennal segments yellow, third – yellow, with dark apical part. Thorax: grey, without spots or stripes. Halteres whitish with yellow stem. Fore coxae grey with 1 seta anteriorly, mid coxae with 1 seta and a row of short hairs. Mid femora with 2 rows of spines. Tibiae yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: tergites with 2 indistinct small spots. Genitalia: surstyli fused, aedeagus triangulate.

Distribution. The species was described from Egypt (Becker, 1903).

Notiphila splendens Macquart, 1851

N. splendens Macquart, 1851: 302.

The species was not included in the revision, for it was not possible to examine the type.

Notiphila stagnosticola
(Robineau-Desvoidy, 1830)

(Figs 84–86)

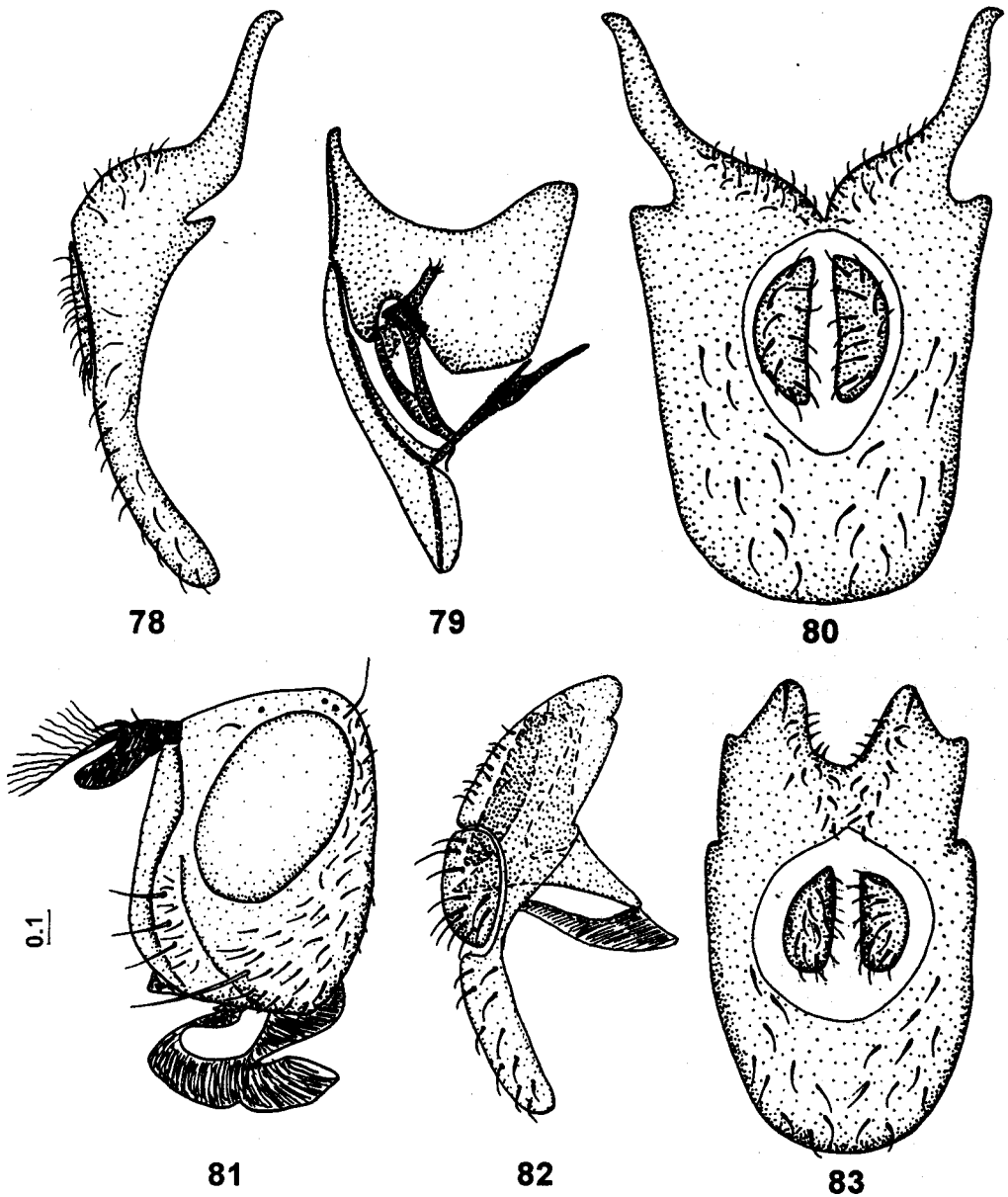
Keratocera stagnosticola (Robineau-Desvoidy, 1830): 789.

Notiphila australis Loew, 1860: 7.

Notiphila imperomana Mathis & Zatwarnicki, 1995: 108.

Lectotype of *N. australis*: ♂, by present designation, labelled: Attica 10/4 67 Coll. H. Loew, Type (ZMHU).

Material. **Afghanistan:** 15 ♂, 17 ♀ Afghanistan-Kabul, Pulicharkhi, edges of a river, 30.X.1986 (J. Olejnicek) (MMB). **Algeria:** 1 ♂, Algier IV 52389 (ZMHU). **Egypt:** 1 ♀, Kairo XI, 44280 (ZMHU).

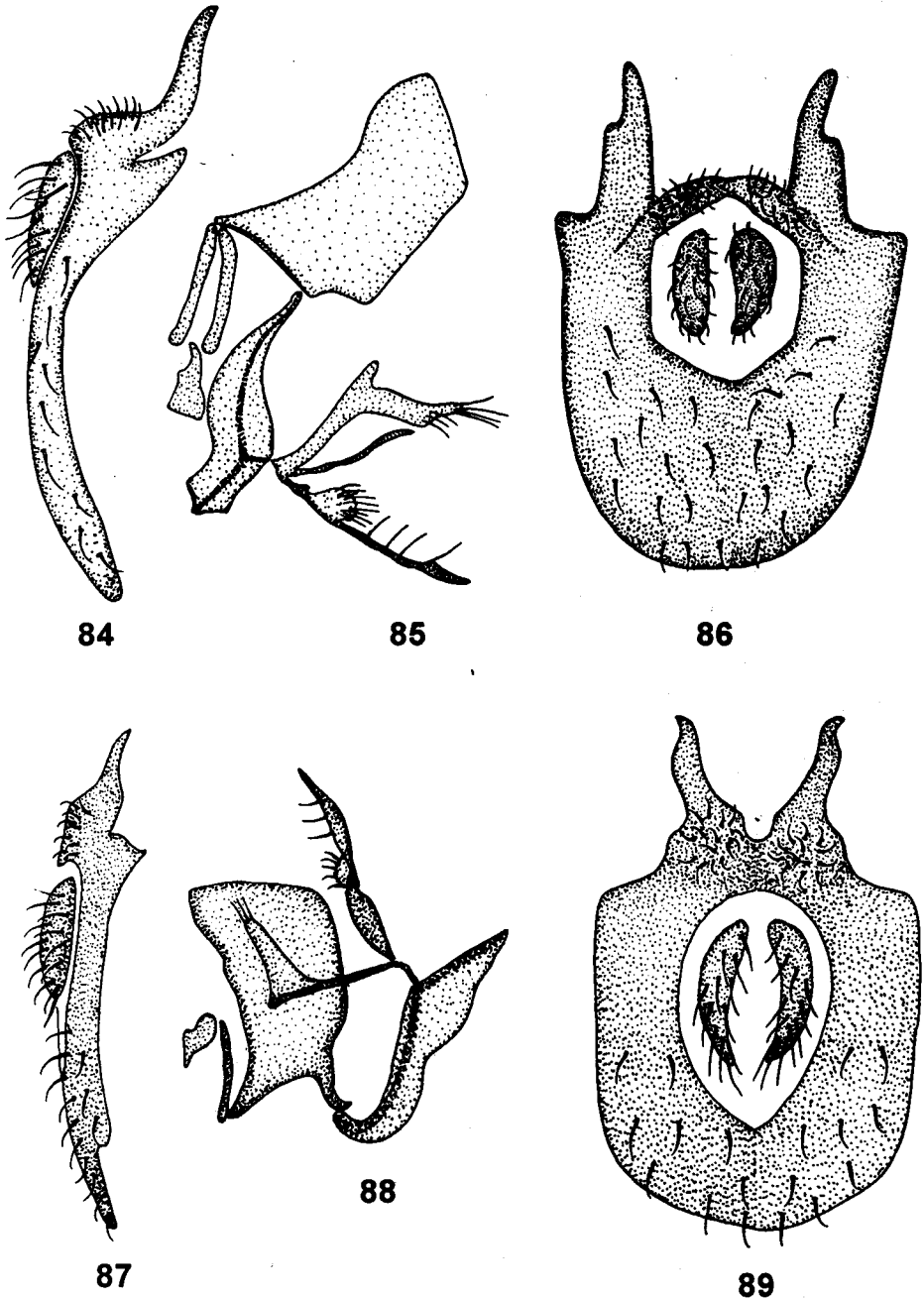
Figs 78–80. *Notiphila* Fallén.

78–80, *N. semimaculata* Becker: 78, epandrium, lateral view; 79, internal male genitalia, lateral view; 80, epandrium, dorsal view. 81–83, *N. major* Stenhammar (81) and *N. setigera* Becker (82–83): 81, head, lateral view; 82, epandrium, lateral view; 83, epandrium, dorsal view.

Germany: 2 ♀, St. Wendel Rheinl Duda, *cinerea* Fall. ♀ d. Duda; 1 ♂, Ilfeld S.-Harz, Duda (ZMHU). Greece: 1 ♂, Korfu (Kerkyro) V 50262 (ZMHU); 1 ♂, Patras IV *australis* Lw. (det. Becker) 55056 (ZMHU). Poland: 3 ♀, Coll. H. Loew; 1 ♂ Augst 7 67, Coll. H. Loew (ZMHU). Russia: 1 ♀, "Kaukasus", 50419 VIII (ZMHU). Spain: 3 ♂, La Granja, VII-1934 (G. Collado) (MNCN). Turkmenistan: 1 ♂, 1 ♀, 40 km W

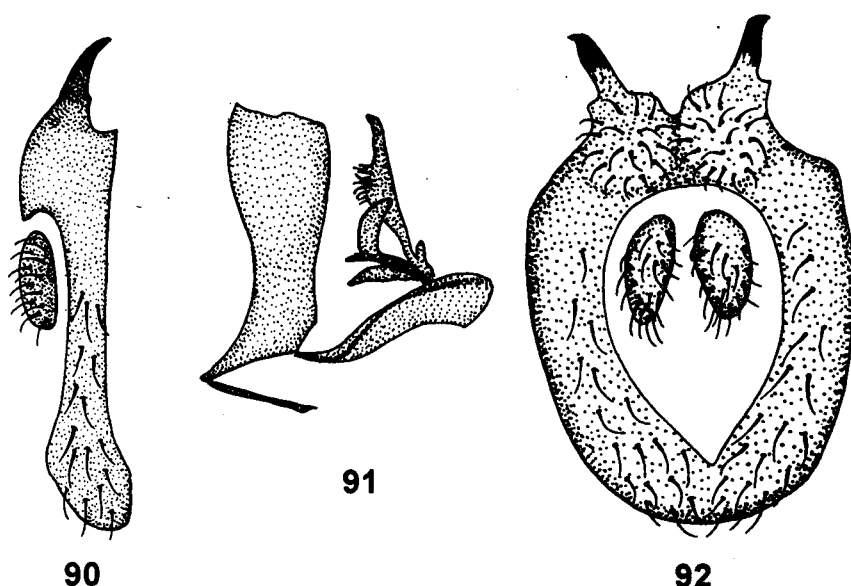
Ashkhabad, 9.V.1983 (M. G. Krivosheina, A. L. Ozerov) (ZMUM).

Diagnosis. The species with brownish general coloration, distinguished mainly by the next characters: face light-grey, frons brown, contrasting to face, frons wide, antennae dark, with yellow apically darkened third segment, cheeks broad, tibiae yellow.



Figs 84–89. *Notiphila* Fallén.

84–86, *N. stagnicola* Robineau-Desvoidy: 84, epandrium, lateral view; 85, internal male genitalia, lateral view; 86, epandrium, dorsal view. 87–89, *N. subnigra* sp. n.: 87, epandrium, lateral view; 88, internal male genitalia, lateral view; 89, epandrium, dorsal view.

Figs 90–92. *Notiphila watanabei* Mijagi.

90, epandrium, lateral view; 91, internal male genitalia, lateral view; 92, epandrium, dorsal view.

Description. Medium sized flies, body length about 3.5 mm. Head: 1 strong reclinate bristle and 1 weak proclinate seta; postfrons ratio 1:1.5; prefrons ratio 1.5:1; eye-to cheek ratio 2.8:1; 4 facial setae. Face coloration light grey, contrasting to brownish frons; palpi yellow; first and second antennal segments dark, third – yellow, with dark apical part. Thorax: brownish-grey, without distinct spots or stripes. Halteres yellow. Fore coxae pubescent anteriorly, mid coxae with 1 setae and a row of short hairs. Mid femora with 2 rows of bristlike setae. Tibia yellow. Mid tibiae with 3 dorsal bristles. Tarsi yellow, apical tarsomeres darkened. Abdomen: tergites with 4 spots. Genitalia: surstyli narrowing apically, aedeagus short.

Distribution. The species was described from Europe (France?) (Robineau-Desvoidy, 1830). Widely distributed in Central and Southern Europe; Mediterranean, North Africa; Asia: Afghanistan, Turkmenistan.

Notiphila (Notiphila) subnigra

M. Krivosheina, sp. n.

(Figs 87–89)

Holotype. ♂, Ст. Пееду, южн. Эстония, 27.VI.[1]951 ([A.A.]Штакельберг) (Station Peedu, South. Estonia, 27.VI.[1]951 ([A.A.]Stackelberg)) (ZMUM).

Paratypes. (Russia) 1 ♂, Temir. u., Ural. Reg., town Dzilandy, 11.VI.1908 (D. Borodin, V. Uvarov) (ZISP); (Sweden) 1 ♂, Upl. Djursholm, Ösbysjön,

30.VII.1941 (Lindroch); 1 ♂, “*Not. riparia* v. d. Zett. ♀”, Hakanry (Wallengr); 1 ♂, K-berg, 27.06.1953; 1 ♂, Upl. Knivsta, Barrsjön, nr 33, 17.VII.1955 (R. Dahl); (Denmark) 1 ♂, “*N. riparia* ♂”, Hafnia Staeger (ZIL); (Germany) 1 ♂, Rosenberg Westpr. Duda, *N. riparia* Mg. ♂, d. Duda (ZMHU).

Diagnosis. Resembling *N. riparia* Mg. The species with dark grey-brown general coloration, including ventral surface of the body, distinguished mainly by the next characters: face grey, antennae yellow, cheeks narrow, anepisterna darker ventrally, tibiae black with yellow bases and apexes.

Description. Medium sized flies, body length 3.6 mm. Head: 1 strong reclinate seta; postfrons ratio 1:1.3; prefrons ratio 1.3:1; eye-to cheek ratio 6:1; 3 facial setae. Face coloration dark grey, frons darker; palpi yellow; antennae yellow with third segment darkened. Thorax: brown without stripes and spots, the lower part of anepisternum dark brown. Wings brown. Halteres yellow. Fore coxae with 2 setae, mid coxae with 2 setae and a row of short hairs. Mid femora with a row of bristlike setae. Tibiae dark yellow, fore tibiae grey pollen, mid tibiae with narrow dark band and hind tibia with wide black dorsal spot, looking like black tibia except yellow bases and apices. Mid tibiae with 3 dorsal bristles. Tarsi yellow, not darkened. Abdomen: tergites with 4 spots. Genitalia: surstyli hooked; aedeagus broad; aedeagal apodeme curved.

Distribution. Europe: Estonia, Germany, Denmark, Sweden; Russia: Ural.

Notiphila watanabei Miyagi, 1966: 121.

Diagnosis. The species with greenish-grey general coloration with brown spots and stripes, distinguished mainly by the next characters: face golden, antennae dark, with yellow apically darkened third segment, cheeks narrow, tibiae yellow with black bands.

Distribution. The species was described from Hokkaido (Miyagi, 1966). Distributed in Japan (Hokkaido, Honshu, Shikoku, Kyushi). Registered in Russian Far East (Southern Primorje). Common in Japan (Miyagi, 1966).

1. Mid tibiae with 4 bristles along dorsum 2
 – Mid tibiae with 3 bristles along dorsum 5
 2. Fifth abdominal segment produced posteriorly into
 a slender process with 2 upcurved bristles . .
 *sekiyai* Koizumi
 – Fifth abdominal segment of normal structure . . 3
 3. Palpi black *uliginosa* Haliday
 – Palpi yellow 4
 4. Mid femora without bristlike setae
 *venusta* Loew
 – Mid femora with rows of bristlike setae
 *major* Stenhammar
 5. Antennae completely black 6
 – Antennae at least partly yellow 9
 6. Face silvery-white, brightly shining

- *brunipes* (Robineau-Desvoidy)
 - Face dark grey, golden or brownish 7
 7. Fore legs black *lenae* sp. n.
 - Fore legs partly yellow 8
 8. Eye-to cheek ratio 4:1. Antennae velvety-black.
 Tibiae yellow *nigricornis* Stenhammar
 - Eye-to cheek ratio 3:1. Antennae pollen. Fore tibiae
 darkened, mid tibiae yellow, hind tibiae with in-
 distinct dark band *dorsata* Stenhammar
 9. Antennae yellow 10
 - First and second antennal segments dark, third -
 yellow, apically darkened 18
 10. Face with many weak and thin hairs 11
 - Face with several strong setae 12
 11. Tibiae yellow. Eye-to cheek ratio 5:1. All an-
 tennal segments yellow
 *semimaculata* Becker
 - Fore tibiae dark, mid and hind tibiae with black
 bands. Eye-to cheek ratio 3.3:1. First and sec-
 ond antennal segments greyish
 *asiatica* sp. n.
 12. Fore tibiae yellow 13
 - Fore tibiae black 17
 13. Mid and hind tibiae yellow 14
 - Mid tibiae yellow, hind tibiae with black band . .
 15
 14. Eye-to cheek ratio 3:1. Abdominal tergites with
 4 small spots *flava* Dahl
 - Eye-to cheek ratio 4.3:1. Abdominal tergites only
 with 2 small spots *setigera* Becker
 15. Cheeks broader, eye-to cheek ratio 4:1
 *esoensis* Miyagi
 - Cheeks narrow, eye-to cheek ratio 5.4:1 . . 16
 16. Mid tibiae yellow. Face straight
 *riparia* Meigen
 - Mid tibiae with black band. Face convex
 *subnigra* sp. n.
 17. Fore, mid and hind tibiae black (sometimes
 only the bases yellow) *aquatica* Becker
 - Fore tibiae black, mid and hind tibiae only with
 black bands *flavoantennata* sp. n.
 18. Face and genae silvery-white or silvery-grey,
 shining, contrasting to the coloration of frons .
 19
 - Face and genae dark grey, golden or brownish .
 20
 19. Tibiae with black bands
 *brunipes* (Robineau-Desvoidy)
 - Tibiae yellow *stagnicola* (Robineau-Desvoidy)
 20. Body densely grey pollen 21
 - Body golden or brownish 22
 21. All tibia yellow *guttiventris* Stenhammar
 - Hind tibiae with dark bands *pollinosa* sp. n.
 22. Tibiae yellow 23
 - Tibiae black or with black bands 29

23. Eye-to cheek ratio 3:1 24
 - Eye-to cheek ratio 4:1 or 5:1 25
24. Tibiae light yellow. Third antennal segment darkened to 1/3 *cinerea* Fallén
 - Fore tibiae sometimes greyish, hind tibiae sometimes with indistinct grey band. Third antennal segment darkened to 1/2 or more
 *dorsata* Stenhammar
25. Face concave in profile. Fore tibiae sometimes with greyish indistinct bands, hind tibiae may be greyish *gracula* Becker
 - Face straight 26
26. Scutum with brown stripes and spots 27
 - Scutum without stripes or spots 28
27. Scutum with brown wide median stripe, diverging posteriorly and two lateral narrow stripes. Fore tibiae yellow *cogani* Canz. et Men.
 - Scutum with 3 narrow brown parallel stripes. Fore tibiae with grey-brownish band
 *maculata* Stenh.
28. Anepisterna with brown spot. Surstyli cut at apex (Figs 43-45) *junceae* Dahl
 - Anepisterna sometimes without spot. Second antennal segment with dorsal yellow spot. Surstyli with median dent (Figs 66-68)
 *nubila* Dahl
29. Scutum with brown stripes and spots
 *watanabei* Miyagi
 - Scutum uniformly coloured 30
30. Fore tibiae black, mid and hind tibiae at least with black bands. Cheeks narrow 31
 - Fore tibiae only with black band 33
31. Face concave in profile and slightly projecting below. Second antennal segment with yellow dorsal spot *mima* Canzoneri et Meneghini
 - Face straight or convex 32
32. Hind tibiae black *lyra* sp. n.
 - Hind tibiae with black band, occupying no more than half of its length *maritima* sp. n.
33. Mid and hind tibiae yellow
 *quadrinaculata* Dahl
 - Mid and hind tibiae with black bands
 *annulipes* Stenhammar

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