Sc orginale for keyniger

UDC 595.771(47)

1989

A Review of Fungus Gnats of the Genus *Anatella* Winn. (Diptera, Mycetophilidae) of the USSR*

A. I. ZAYTSEV (ZAITZEV)

Severtsov Institute of Evolutionary Morphology and Ecology of Animals, Moscow

Data on the geographical distribution of 20 species of the genus *Anatella* are presented. Six new species are described: *A. altaica* sp. n. and *A. digitata* from Altai; *A. aquila* sp. n. from Altai, Sakhalin, and Kunashir Island; *A. dentata* sp. n. and *A. ramificata* sp. n. from Sakhalin; and *A. latilobata* sp. n. from Kunashir. New synonymy are established: *A. orbiculata* Ostr. et Isot. = *A. gibba* Winn., syn. n.; *A. maritima* Ostr. = *A. lenis* Dzied., syn. n.; and *A. scalaria* Ostr. = *A. novata* Dzied., syn. n. A key to species of the fauna of the USSR is presented.

Species of *Anatella* Winn. are small insects with body length ranging from 1.5 to 3 mm. The type species of the genus is *A. gibba* Winn. (Johannsen, 1909). One important distinctive feature of this group within the Holarctic genera of *Exechiini* is the costal vein extending beyond the apex of R_5, which is considered as a plesiomorphic character (Tuomikoski, 1966).

Species of *Anatella* Winn. are known from the Holarctic Region only. In the Palearctic part of the region 29 species have been recorded; independence of some of them is dubious at the present time.

In the European USSR, 8 species are known (Lackschewitz, 1937: Ostroverkhova and Shtakel'berg, 1969; Krivosheina, Zaytsev, and Yakovlev, 1986). In Siberia and the Far East, 8 species have been described (Ostroverkhova, 1979).

Species of this genus are found in humid forest habitats, near creeks and water bodies. Biology of the preimaginal stages is poorly known. There is information concerning larvae *A. lenis* Dzied. living in the xylophilious Tremellales fungus *Exidia glabdulosa* Fries (Plassmann, 1970), and *A. flavomaculata* Edw. in the xylotrophic ascomycets *Helotium aciculare* Persoon (Chandler, 1977a). Larvae of only one species, *A. lenis* (Plassmann, 1972), here have been described.

For the preparation of this paper, I examined the collections of the Zoological Institute, Academy of Sciences of the USSR, Leningrad (ZIL), Tomsk State University (TSU), and Severtsov Institute of Evolutionary Morphology and Ecology of Animals, Academy of Sciences of the USSR (SIEMEA). I am grateful to G. P. Ostroverkhova (TSU) for making her materials available for study.

Anatella altaica A. Zaitzev, sp. n.

♂ Wing length 2.2 mm.

*Originally published in Entomologicheskoye Obozreniye, No. 4, 1989, pp. 809-820.

ISSN0013-8738/90/0004-0132$7.50/0

© 1990 Scripta Technica, Inc.

Head black; clypeus brown, mouth parts and maxillary palpi yellow. Antennae dark brown, pedicel yellow. Length of midsegments of flagellum not exceeding their width.

Thorax dark brown. Mesonotum with small yellow humeral flecks. Scutellum with 2 medial setae. Propleuron pale brown, with 1 long seta. Wings hyaline; Crossvein *r-m* as long as stem of $M_1 + M_2$. Base of $M_{3+4} + Cu_1$ below fork of $M_1 + M^2$. Halteres yellow. Legs yellow; forebasitarsus as long as foretibia; midtibia with 5 *ad*, 8 *pd* setae.

Abdomen dark brown. Genitalia brown; apical part of ventral lobe of gonostyle with long process (Fig. 1.2, and 8).

Material. Holotype: ♂, Altai, Teletskoe Lake, Artybash, 1-10.V.1982, Zaytsev (ZIL). Paratype: ♂, same, 21-27.V.1982, Zaytsev (SIEMA).

This species is close to *A. dampfi* Landr. and *A. minuta* (Staeg.), but differs from them in genitalic structure.

Anatella ankeli Plassmann, 1977: 11.

This species was described from West Germany and later found in France (Matile, 1980). It is distinguished well from other species by structure of genitalia (Fig. 1.7).

Material. 1 ♂, Leningrad Prov., Tolmachevo, 4.IX.1937, Shtakel'berg (ZIL).

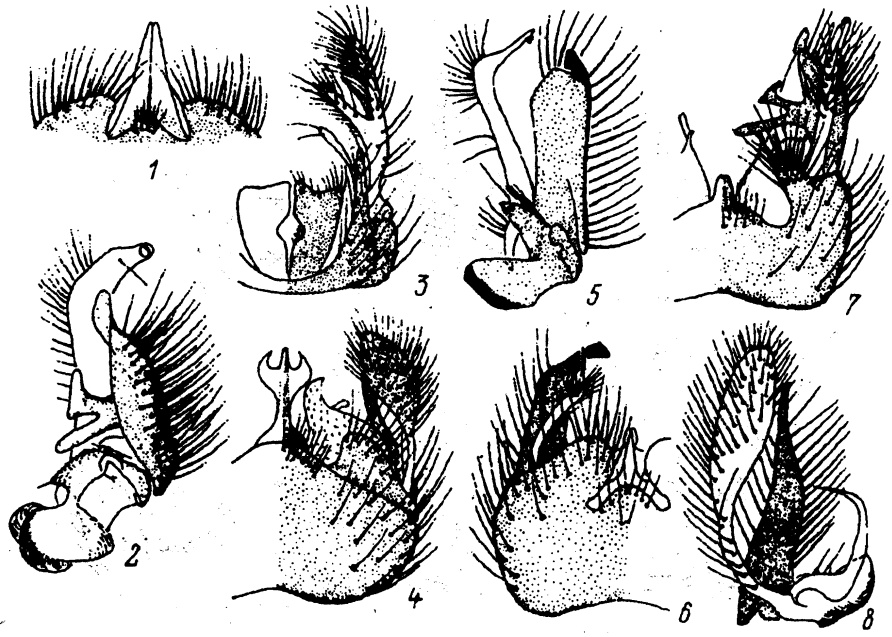

Fig. 1. 1, 6) *Anatella aquila* sp. n.: 2, 8) *A. altaica* sp. n.; 3) *A. dentata* sp. n.; 4, 5) *A. ciliata* Winn.; 7) *A. ankeli* Plassmann. 1) ♂ genitalia in dorsal view; 2, 4, 6) gonostyle; 3) ventral appendage of gonocoxites; 5, 7, 8) ♂ genitalia in ventral view.

Anatella aquila A. Zaitzev, sp.n.

♂. Wing length 2.1 mm.

Head black; clypeus dark brown, mouth parts and maxillary palpi pale brown. Antennae dark brown, only segments of pedicel yellow; midsegments of flagellum not longer than wide.

Thorax dark brown. Mosonotum shiny, without humeral flecks; scutellum with 2 long medial setae; propleuron pale brown, with 1 long seta. Wing hyaline; crossvein *r-m* as long as stem of $M_1 + M_2$; base of $M_{3+4} + Cu_1$ vein below fork of $M_1 + M_2$. Halteres yellow. Legs yellow; forebasitarsus as long as foretibia; midtibia with 7 *a*, 10 *pd*, hindtibia with 16 *ad*, 5-7 *pd* setae.

Abdomen dark brown. Genitalia brown; dorsal part of gonostyle with long apical process (Fig. 1.1); ventral part with group of fuscous setae in middle (Fig. 1.6).

♀ unknown.

Material. Holotype: ♂, Altai, Teletskoe Lake, Artybash, 1-10.V.1982 (ZIL). Paratypes: 2 ♂ with same label; 4 ♀, Sakhalin, Kuznetsov Cape, 3, 20,21.IX.1986; 1 ♂, Kuril Islands, Kunashir Island, 11.VII.1977 (SIEMA). All collections by present author.

This species is close to *A. minuta* (Staeg.), from which it differs in genitalic structure.

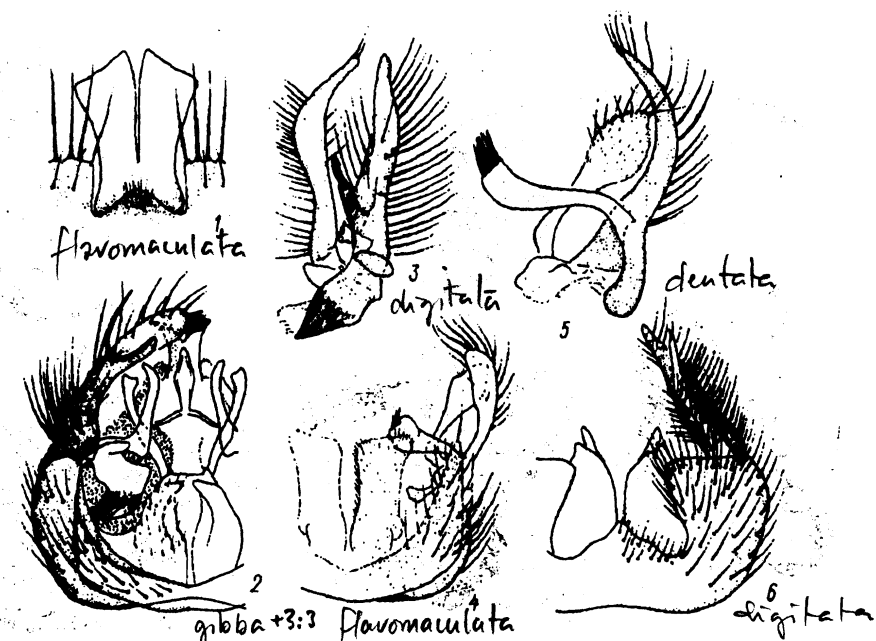

Fig. 2. 1, 4) *Anatella flavomaculata* Edw.; 2) *A. gibba* Winn.; 3, 6) *A. digitata* sp. n.; 1) ventral process of gonocoxites; 2, 4) ♂ genitalia; 5) *A. dentata* sp. n.; in dorsal view; 3, 5) gonostyle; 4) ♂ genitalia in ventral view.

Anatella ciliata Winnertz, 1863: 865.

One of the most common species of the genus. It is known from Scandinavia (Plassmann, 1978a), France (Matile, 1977), Poland (Mikolajczyk, 1967), and North America (Laffoon, 1965). In the USSR it is found in the Baltic Region (Lackschewitz, 1937), Siberia, and Maritime Terr. (Ostroverkhova, 1979).

Material. 2 ♂, Altai, Teletskoe Lake, 1-10.V.1982, Zaytsev; 1 ♂, Sakhalin, Kuznetsov Cape, 3.IX.1986, Zaitzev (SIEMA).

Anatella dentata A. Zaitzev, sp. n.

♂. Wing length 2 mm.

Head black, shiny; clypeus, mouth parts, and maxillary palpi yellow. Antennae dark brown, only segments of pedicel yellow; midsegments of antenna not longer than wide.

Thorax dark brown; mesonotum shiny, without humeral flecks; scutellum with 2 long medial setae; propleuron yellow, with 2 long setae. Wings hyaline slightly infuscate anteriorly; crossvein *r-m* as long as stem of $M_1 + M_2$; base of $M_{3+4} + Cu_1$ beyond fork of M_1+M_2. Halteres yellow. Legs yellow, only apices of mid- and hind-femora slightly fuscous; forebasitarsus as long as foretibia; midtibia with 15 *a*, 7 *pd*, 13 *v*; hindtibia with 9 *ad*, 8 *pd* setae.

Abdomen dark brown, lateral margins of tergites I-III pale. Genitalia as in Figs. 1.3 and 2.5.

Material. Holotype: ♂, Sakhalin, Kuznetsov Cape, 26.VIII.1986, Azytsev (ZIL).

This species is close to *A. flavomaculata* Edw., from which it differs in structure of the gonostyle (Fig. 2.5) and ventral appendage of gonoxites (Fig. 1.3).

Anatella digitata A. Zaitaev, sp. n.

♂ Wing length 2.4 mm.

Head black; clypeus black, mouth parts and maxillary palpi pale brown. Antennae dark brown, only pedicel yellow; midsegments of antenna not longer than wide.

Thorax dark brown; mesonotum without humeral flecks; scutellum with 4 long medial setae. Propleuron brown, with 1 long seta. Wing hyaline; stem of M_1+M_2 longer than crossvein *r-m*; fork of $M_3 + M_4$ beyond fork of M_1+M_2. Halteres yellow. Legs yellow; forebasitarsus as long as foretibia; midtibia with 9 *ad*, 6 *d*, 7 *pd*, hindtibia with 12 *ad*, 3 *d*, 16 *pd*, 5 *p* setae.

Abdomen dark brown; genitalia pale brown; dorsal part of gonostyle sclerotized, with digitate process at base (Fig. 2.3), ventral part of gonostyle with 2 apical setae (Fig. 2.3, 6).

Material. Holotype: ♂, Altai, Teletskoe Lake, Artybash, 20-30.IV.1982, Zayitsev (ZIL).

Anatella flavomaculata Edwards, 1925: 590.

A rare species until recently known only from England (Edwards, 1925; Chandler, 1977a) and the Baltic Region (Lackschewitz, 1937).

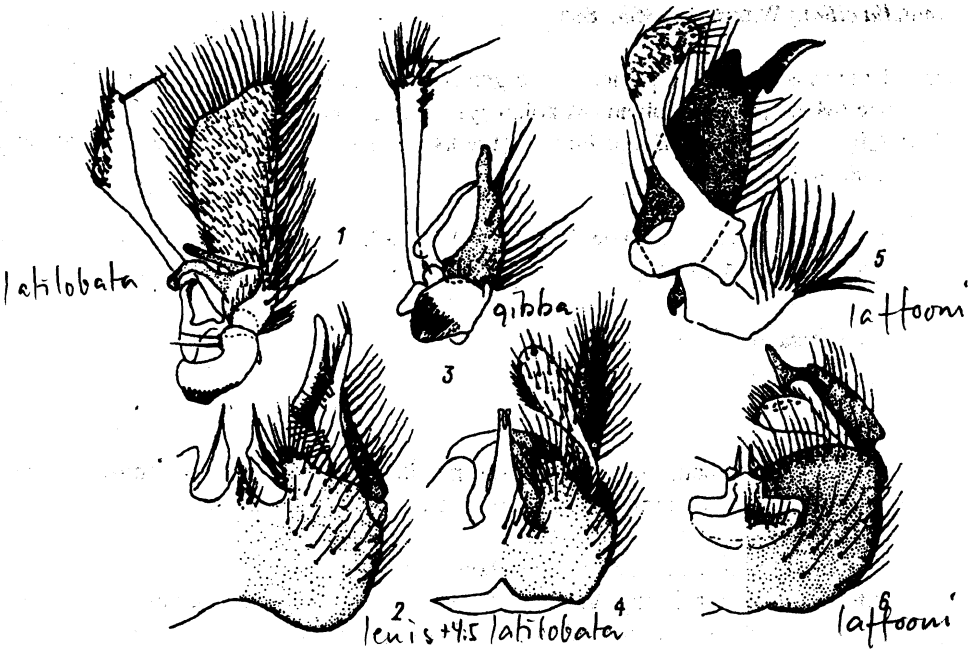

Fig. 3. 1, 4) *Anatella latilobata* sp. n.; 2) *A. lenis* Dzied.; 3) *A. gibba* Winn.; 5, 6) *A. laffooni* Plassmann; 1, 3, 5) gonostyle; 2, 4, 6) ♂ genitalia in ventral view.

Material. 1 ♂, Karelia, Kivach Reserve, X.1984, Yakovlev; 2 ♂, Kostroma Prov., Ugory, IX.1981, Zaytsev; 1 ♂, Moscow Prov., Ovrazhki, 9.V.1981, Zaytsev;1 ♂, Altai, Teletskoe Lake, Artybash, 1-10.V.1982, Zaytsev (SIEMA).

Anatella gibba Winnertz, 1863: 855.

Anatella orbiculata Ostroverkhov and Isotov, 1974: 82, **syn. n.**

This species until recently was known only from Scandinavia (Plassmann, 1978a) and Central Europe (Plassmann, 1984). The record of this species from England (Chandler, 1977a) is erroneous and should be assigned to *A. pseudogibba* Plassmann (Chandler, 1977b). Finding *A. gibba* in Siberia and on the Kutil Islands indicates its transpalearctic distribution.

Material. 1 ♂, Krasnoyarsk Terr., Tungussk-Chuysk Distr., 20.V.1972, Ostroverkhova (holotype of *A. orbiculata*) (TSU); 4 ♂, Kuril Islands, Kunashir Island, VI-VII.1977, Zaytsev (SIEMA).

Anatella laffooni Plassmann, 1977: 12.

This species was described from Sweden, and later found in West Germany (Plassmann, 1977, 1981) and in the Italian Alps (Matile, 1980).

Material. 6 ♂, Altai, Teletskoe Lake, Artybash, V.1982, Zaytsev (SIEMEA).

Anatella latilobata A. Zaitzev, sp. n.

♂ Wing length 2.1 mm.

Head dark brown; clypeus brown; mouth parts and maxillary palpi yellow. Antennae bicolored; pedicel and base of 1st flagellar segment yellow, other segments dark brown; midsegments of flagellum 1.5 times as long as wide.

Thorax dark brown; mesonotum without humeral flecks; scutellum with 2 medial setae. Propleuron yellow, with 1 long seta. Wing hyaline; crossvein *r-m* as long as stem of M_1+M_2; M_{3+4} + Cu_1 fork beyond fork of M_1+M_2. Halteres yellow. Forebasitarsus as long as foretibia; midtibia with 23 *ad*, 22 *pd*, 33 *v*, hindtibia with 14 *ad*, 8 *pd* setae.

Abdomen unicolorous brown. Genitalia pale brown; ventral appendage of gonocoxites bifurcated apically (Fig. 3.4); dorsal part of gonostyle wide (Fig. 3, 1).

Material. Holotype: ♂, Kuril Islands, Kunashir Island, 1.VII.1977, Zaytsev (ZIL). Paratype: ♂, same, 13.VI.1977, Zaytsev (SIEMEA).

Anatella lenis Dziedzicki, 1923: 5.

Anatella maritima Ostroverkhova, 1979: 126, **syn. n.**

This species was described from Czechoslovakia, and is widely distributed in Europe, found in Sweden (Plassmann, 1978a), West Germany (Plassmann, 1980), France (Matile, 1977), and Poland (Mikolajczyk, 1971). In the USSR, it is known in the Baltic Region (Lackschewitz, 1937). Finding the species in the Maritime Terr. (Ostroverkhova, 1979), Altai, and Sakhalin suggests its transpalearctic distribution.

Material. 1 ♂, Kostroma Prov., Ugory, 9.IX.1981, Zaytsev; 15 ♂, Altai, Teletskoe Lake, Artybash, IV-V.1982, Zaytsev (SIEMEA); 2 ♂, Maritime Terr., Sikhote-Alin Reserve, Maysa, 29.V.1974 (syntypes *A. maritima*) (TSU); 3 ♂, Sakhalin, Kuznetsov Cape, 20,21.IX.1986, Zaytsev (SIEMEA).

Anatella minuta (Staeger, 1840)

Mycetophila minuta Staeger, 1840: 253.

Anatella aberrans Dziedzicki, 1923: 5.

This species is widely distributed in Europe, known from Sweden (Plassmann, 1978a), British Isles (Edwards, 1925; Chandler, 1977a), West Germany (Plassmann, 1978b), Poland (Mikoljczyk, 1971), and Chechoslovakia (Dziedzicky, 1923). In the USSR, it has been found in Leningrad Prov. and Kostroma Prov. (Krivosheina et al. 1986). It was also recorded from Mongolia (Lastovka and Matile, 1974).

Material. 1 ♂, Karelia, Kivach Reserve, 24.V.1984, Yakovlev; 1 ♂, Kostroma Prov., Ugory, VIII.1981, Zaytsev; 10 ♂, Altai, Teletskoe Lake, Artybash, V.1982, Zaytsev (SIEMEA).

Anatella minutissima Ostroverkhova, 1979: 126.

♂ Wing length 2.3 mm.

Head black; clypeus pale brown, mouth parts yellow. Antennae bicolored. Pedicel and base of basal flagellar segment yellow, other segments dark brown; midsegments of flagellum 1.5 times as long as wide.

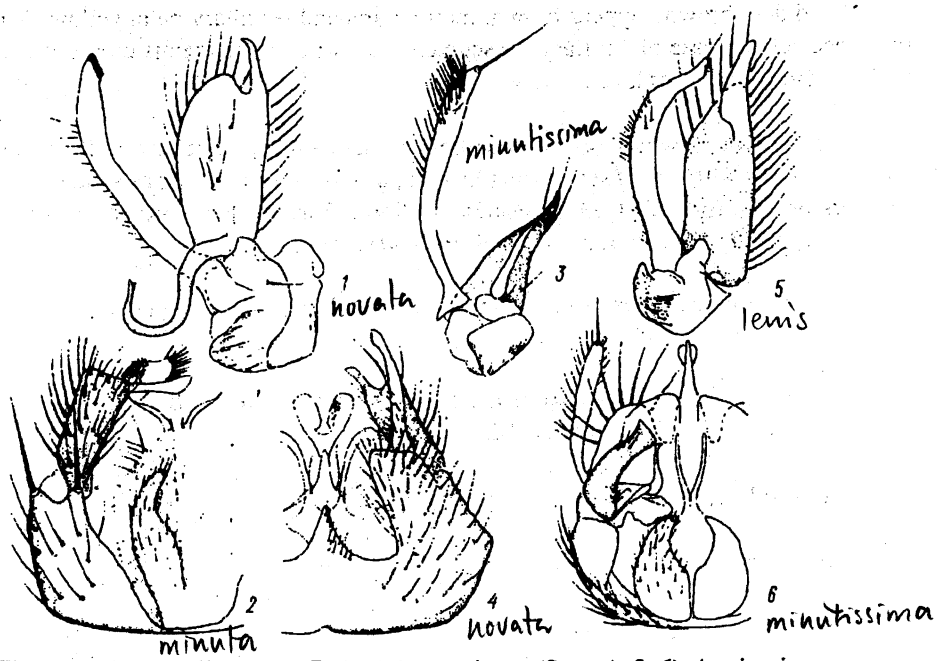

Fig. 4. 1, 4) *Anatella novata* Dzied.; 2) *A. minuta* (Staeg.); 3, 6) *A. minutissima* Ostr.; 5) *A. lenis* Dzied. (5). 1, 3, 5) gonostyle; 2, 6) ♂ genitalia in dorsal view; 4) ♂ genitalia in ventral view.

Thorax dark brown; mesonotum without humeral flecks; scutellum with 2 long medial setae. Propleuron yellow, with 2 long setae. Wing hyaline; stem of $M_1 + M_2$ little longer than crossvein *r-m*; base of $M_{3+4} + Cu_1$ at short distance beyond base of $M_1 + M_2$ fork. Halteres yellow. Legs yellow, only apices of hindfemora little fuscous; forebasitarsus as long as foretibia; midtibia with 20 *ad*, 16 *pd*, 35 *v*, hindtibia with 11 *ad*, 16 *pd*, 4 *v* setae.

Abdomen dark brown. Genitalia pale; dorsal part of gonostyle with wide apex (Fig. 4.6). Ventral part of gonostyle with long apical seta (Fig. 4.3).

Material. 1 ♂, Krasnoyarsk Terr., Tungussk-Chuysk distr., 29.VII.1972, without collector's name (holotype) (TSU); 1 ♂, Sakhalin, Kuznetsov Cape, 26.VIII.1986, Zaytsev (SIEMEA).

Anatella novata Dziedzicki, 1923: 4.

Anatella scalaria Ostroverkhova, 1979: 127, **syn. n.**

This species was described from Czechoslovakia and later found in Sweden (Plassmann, 1978a) and in West Germany (Plassmann, 1980). Findings of this species in Altai and Maritime Terr. suggest its transpalearctic distribution.

Material. 10 ♂, Altai, Teletskoe Lake, Artybash, V.1982, Zaytsev (SIEMEA); 1 ♂, Maritime Terr., Sikhote-Alin Reserve, Maysa, 26.V.1974, Tsurkan (holotype of *A. scalaria*) (TSU).

Anatella ramificata A. Zaitzev, sp. n.

♂. Wing length 2.2 mm.

Head black; mouth parts and maxillary palpi yellow. Antennae dark brown, segments of pedicel yellow; midsegments of flagellum not longer than wide.

Thorax dark brown; mesonotum without humeral flecks; scutellum with 2 long medial setae. Propleuron yellow, with 1 long seta; wing hyaline; crossvein *r-m* shorter than stem of M_1+M_2; fork of M_{3+4} + Cu_1 below fork of M_1+M_2. Halteres yellow. Legs yellow, only apices of hindfemora fuscous; forebasitarsus as long as foretibia; midtibia with 13 *ad*, 8 *pd*, 14 *v*, hindtibia with 21 *ad*, 13 *pd* setae.

Abdomen dark brown. Genitalia pale brown as in Fig. 5.1 and 3.

Material. Holotype: ♂, Sakhalin, Kuznetsov Cape, 10.IX.1986, Zaytsev (ZIL).

This species is close to *A. flavomaculata* Edv., from which it may be distinguished by the structure of the ventral appendage of the gonocoxite (Fig. 5.1) and presence of branching dorsal part of the gonostyle (Fig. 5, 3).

Anatella setiqera Edwards, 1921: 122.

The species is known from the British Isles, West Germany, and Sweden (Plassmann, 1980). In the USSR, it has been recorded in Leningrad Prov. and Kostroma Prov. (Krivosheina et al. 1986). According to available diagnostics and figures of the genitalia by Ostroverkhova (1979), *A. dissecta* from Siberia is identical to *A. setiqera*. For final determination of synonymy, type specimens should be examined.

Material. 1 ♂, Kostroma Prov., Ugory, VIII, 1981, Zaytsev (SIEMEA).

Anatella simpatica Dziedzicki, 1923: 6.

Anatella incisurata Edwards, 1925: 589.

This is an holarctic species known from Europe and North America (Laffoon, 1965). In the USSR it has been found in Leningrad Prov. and Moscow Prov. (Sakharova, 1977; Krivosheina et al. 1986). I found this species in Altai.

Material. 1 ♂, Leningrad Prov., Tolmachevo, 6.IX.1936, Shtakel'berg (ZIL); 3 ♂, Altai, Teletskoe Lake, V.1982, Zaytsev (SIEMEA).

Anatella tunqusica Ostroverkhova, 1979: 127.

♂. Wing Length 2.2 mm.

Head black; clypeus and maxillary palpi pale brown; mouth parts yellow. Antennae dark brown with silvery pubescence; midsegments of flagellum not longer than wide.

Thorax brown; mesonotum pale brown, with dark setae; scutellum dark brown, with 2 long medial setae; mesotergite dark brown; lateral sclerites of thorax pale brown; propleuron with 1 long seta. Wing slightly and evenly infuscate; crossvein *r-m* approximately as long as stem of M_1+M_2; fork of M_{3+4} +Cu_1 below M_1+M_2 fork. Halteres yellow. Legs yellow, only apices of

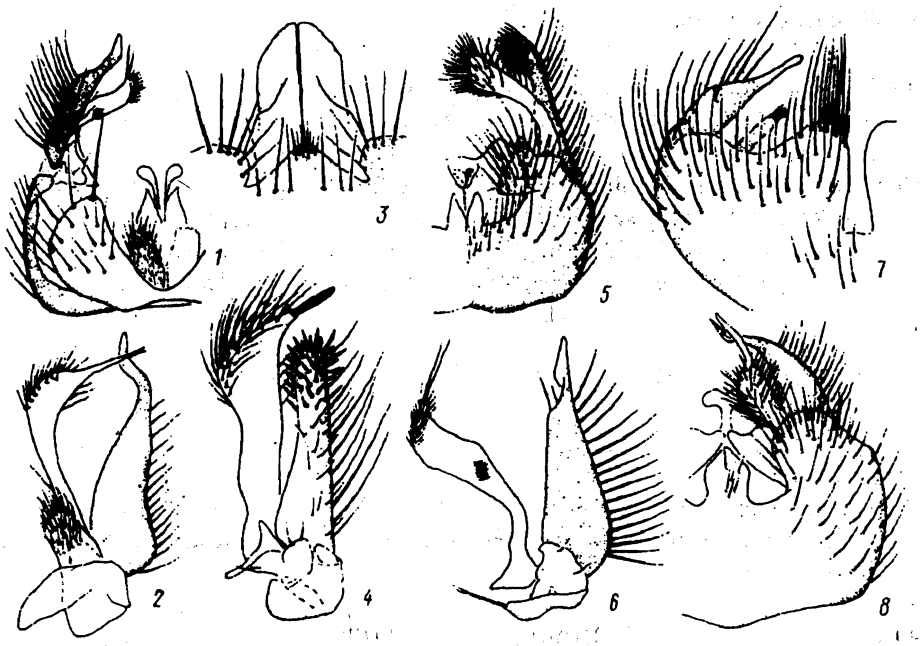

Fig. 5. 1, 3) *Anatella ramificata* sp. n.; 2, 7) *A. simpatica* Dzied.; 4, 8) *A. turi* Dzied.; 5, 6) *A. tunqusica* Ostr.; 1) ventral appendage of gonocoxites; 2, 3, 5, 8) gonostyle; 4, 6, 7) ♂ genitalia in ventral view.

hindfemora and tibia fuscous; forebasitarsus little shorter than foretibia; midtibia with 10 *a* and 8 *pd*; hindtibia with 18 *ad* and 10 *d* setae.

Abdomen dark brown, only lateral parts of tergite II paler. Genitalia pale brown; dorsal part of gonostyle strongly sclerotized apically (Fig. 5.5, and 6).

Material. 1 ♂, Maritime Terr., Sikhote-Alin Reserve, 7.VIII.1974 (paratype *A. tunqusica*) (TSU): 3 ♂, Sakhalin, Kuznetsov Cape, 26.29.VIII, 9.IX.1986, Zaytsev (SIEMEA); 2 ♂, Kuril Islands, Kunashir Island, 20.VII.1977, Zaytsev (SIEMEA).

Anatella turi Dziedzicki, 1923: 4.

This species is known from various parts of Europe (Plassmann, 1978a); in the USSR from Karelia, Leningrad Prov., Vologda Prov., Kostroma Prov., Altai, and Kuril Island, which suggests a transpalearctic distribution.

Material. 1 ♂, Karelia, Kivach Reserve, 6-9.IX.1984, Zaytsev (SIEMEA); 1 ♂, Leningrad Prov., Komarovo, 26.VIII.1949, Shtakel'berg (ZIL); 1 ♂, Vologda Prov. Rybinsk Reservoir, Darwin Reserve, 28.V.1984, Zaytsev (SIEMEA); 9 ♂, Altai, Teletskoe Lake, Artybash, V.1982, Zaytsev (SIEMEA), 1 ♂, Kuril Islands, Kunashir Island, 5.VII.1977, Zaytsev (SIEMEA).

Anatella unquiqera Edwards, 1921: 122.

This species was described from the British Isles, later reported from Moscow Prov. (Sakharova, 1977). Finding of this species in the Kuril Islands permits it to be considered transpalearctic.

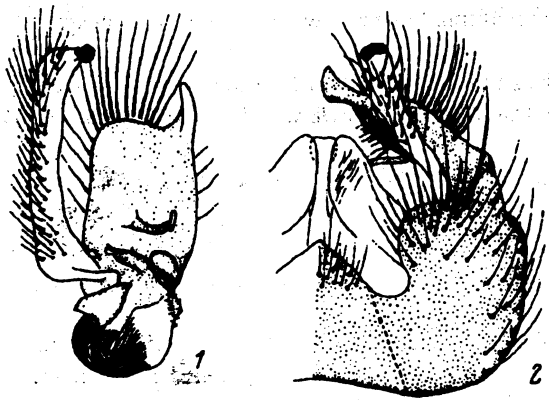

Fig. 6. *Anatella unquigera*. 1) gonostyle; 2) ♂ genitalia in ventral view.

Material. 1 ♂, Kuril Islands, Kunashir Island, 12.VII.1977, Zaytsev (SIEMEA).

Besides the species listed above, according to several authors, there occur also in the USSR, *A. dampfi* Landr. (Lackschevitz, 1937; Sakharova, 1977), *A . schmitzi* Landr. (Sakharova, 1977), *A. clavata* Ostr., and *A. umbraculiforma* Ostr. (Ostroverkhova, 1979). These species are not included in my key because of a lack of materials for examination.

Key to USSR Species of *Anatella* Winn.

1 (16). Proximal side of midtibia with row of thin setae.

2 (11). Proximal spur on midtibia twice as long as distal spur.

3 (4). Distal spur on midtibia completely reduced. ♂ genitalia as in Fig. 5.4, 8.....*A. turi* Dziedzicki.

4 (3). Distal spur on midtibia is well developed.

5 (6). Length of midsegments of flagellum of antenna more than width. Gonostyle lobes weakly sclerotized (Fig. 5.3). Ventral appendage of gonocoxite conical (Fig. 5.1). *A. ramificata* sp. n.

6 (5). Length of midsegments of flagellum 1.5-2 times width.

7 (10). Basal setae on hindcoxae absent.

8 (9). Dorsal part of gonostyle narrow, with strong apical setae (Fig. 1.4). Ventral appendage of gonocoxite short (Fig. 1.5).....*A. ciliata* Winn.

9 (8). Dorsal part of gonostyle wide, without sturdy apical setae (Fig. 3.1). Ventral appendage of gonocoxite oblong (Fig. 3.4).....*A. latilobata* sp. n.

10 (7). Basal setae on hindcoxae present. Dorsal part of gonostyle with 2 medial lobate processes .....*A. setiqera* Edw.

11 (2). Proximal spur on midtibia less than twice as long as distal spur.

12 (13). Length of midsegments of flagellum 1.5 times width. Dorsal part of gonostyle with wide apex (Fig. 4.6). Ventral part of gonostyle with long apical seta (Fig. 4.3). *A. minutissima* Ostr.

13 (12). Length of midsegments of flagellum not greater than width.

14 (15). Dorsal part of gonostyle wide apically (Fig. 2.4). Ventral appendage of gonocoxite with even apical margin (Fig. 2.1)..... *A. flavomaculata* Edw.

15 (14). Dorsal part of gonostyle narrow apically (Fig. 2.5). Ventral appendage of gonocoxite with serrate apical margin (Fig. 1.3)..... *A. dentata* sp. n.

16 (1). Proximal side of midtibia without row of thin setae.

17 (18). Length of midsegments of flagellum is 1.5-2 times width. Dorsal part of gonostyle bifurcate apically (Fig. 2. 2; 3.3)..... *A. gibba* Winn.

18 (17). Length of midsegments of flagellum no more than slightly greater than width.

19 (20). Propleuron with 2 long setae. Ventral part of gonostyle with strong black spur (Fig. 6.1). ♂ genitalia as in Fig. 6. 2..... *A. unguigera* Edw.

20 (19). Propleuron with 1 long seta.

21 (22). Length of distal spur of midtibia about half that of proximal spur. Ventral part of gonostyle with group of fuscous setae in midpart. (Fig. 1.1, 6)..... *A. aquila* sp. n.

22 (21). Length of distal spur of midtibia at least 2/3 that of proximal spur.

23 (28). Dorsal part of gonostyle with medially directed processes in basal part (Fig. 2.3, 5, 7).

24 (27). Process of dorsal part of gonostyle simple (Fig. 2.3; 4.1).

25 (26). Process of dorsal part of gonostyle is straight, digitate (Fig. 2.3). ♂ genitalia as in Fig. 2.6..... *A. digitata* sp. n.

26 (25). Process on dorsal part of gonostyle sinuate (Fig. 4.1). ♂ genitalia as in Fig. 4.4 ..... *A. novata* Dzied.

27 (24). Process on dorsal part of gonostyle bifurcate (Fig. 5.2). Ventral part of gonostyle with apical group of small setae (Fig. 5.7)..... *A. simpatica* Dzied.

28 (23). Dorsal part of gonostyle without process in basal part (Fig. 4.5).

29 (30). Ventral notch of gonocoxites narrow and deep, up to 1/2 of their length (Fig. 1.7) ..... *A. ankeli* Plassmann

30 (29). Depth of ventral notch of gonocoxites less than 1/2 of their length.

31 (32). Gonocoxites on dorsal side with 2 apical processes carrying stout and long setae (Fig. 4.2).....*A. minuta* (Staeg.)

32 (31). Gonocoxites on dorsal side without apical processes.

33 (34). Ventral part of gonostyle with serrate plates in wide apical part (Fig. 3.5, 6) .....*A. laffooni* Plassmann

34 (33). Ventral part of gonostyle without serrate apical plates.

35 (36). Ventral process of gonocoxite with acute apex (Fig. 3.2). Gonostyle as in Fig. 4.5 .....*A. lenis* Dziedzicki

36 (35). Ventral appendage of gonocoxite with more or less obtuse apex (Fig. 1.8; 5.6).

37 (38). Dorsal part of gonostyle with rounded apical part (Fig. 5.5), bearing strongly sclerotic process.....*A tunqusica* Ostr.

38 (37). Apical part of dorsal part of gonostyle acute and bent (Fig. 1.2).....*A. altaica* sp. n.

LITERATURE CITED

CHANDLER, P. 1977a. Studies of some fungus gnats (Diptera: Mycetophilidae) including nine additions to the British list. Syst. Entomol. 2: 67-93.

CHANDLER, P. 1977b. Some fungus gnats of the tribe Exechiini (Dipt., Mycetophilidae) new to the British list. Proc. Brit. Entomol. Nat. Hist. Soc. 1977: pp. 71-85.

DZIEDZICKI, H. 1923. Przeglad gatunk'ov europejskich rodzaju *Anatella* Winnetz oraz opis dwu nomych rodazjow. *Heteropygium* i *Allophallus*. Arch. Nauk. Biol. Towar. Nauk. Warszaw 1 (15): 1-8.

EDWARDS, F. W. 1921. Diptera Nematocera from Arran and Loch Etive. Scottish Nat. pp. 121-125.

EDWARDS, F. W. 1925. British fungus-gnats (Diptera, Mycetophilidae) with a revised generic classification of the subfamily. Trans. Entomol. Soc. Lond. 73: 505-670.

JOHANNSEN, O. A. 1909. Diptera. Fam. Mycetophilidae. Genera Insectorum, Fasc. 93. Bruxelles. 141 pp.

KRIVOSHEINA, N. P., et al. 1986. Nasekomyerazrushiteli gribov v lesakh evropeyskoy chasti SSSR [In Russ., (Insect pests of mushrooms in forests of the European USSR)]. Moscow. 309 pp.

LACKSCHEWITZ, P. 1937. Die Fungivoriden des Ostbaltishchen Gebietes. Arb. Naturforsch. Ver. Riga (N. F.) 21: 1-47.

LAFFOON, J. 1965. Family Mycetophillidae. In: Stone, A., et al. A catalog of the Diptera of America North of Mexico. USDA Agric. Handb. No. 276. 1696 pp.

LASTOVKA, P. and L. MATILE. 1974. Mycetophilidae (Diptera) de Mongolie. Acta Zool. Acad. Sci. Hung. 20: 93-135.

MATILE, L. 1977. Catalogue provisoire des Diptères Mycetophilidae de la faune de France. Bull. Mus. Natl. Hist. Nat. (3 ser.) 319 (No. 456): 621-655.

MATILE, L. 1980. Complemént au Catalogue des Mycetophilidae de France (Dipt.). Bull. Soc. Entomol. France 83: 93-102.

MIKOLAJCZYK, W. 1967. Mycetophilidae (Diptera) dolini Nidy. Fragm, Faun. 14 (2): 17-43.

MIKOLAJCZYK, W. 1971. Materialy do znajomos'ci bedliszkowatych (Diptera, Mycetophilidae) Bieszczadow. Fragm. Faun. 17 (15): 365-394.

OSTROVERKHOVA, G. P. 1979. Mitsetofilnye komary (Diptera, Mycetophiloidea) Sibiri [In Russ., (Fungus Gnats, Mycetophiloidea, of Siberia)]. Tomsk, 307 pp.

OSTROVERKHOVA, G. P. and YU. A. IZOTOV. 1974. New data on fungus gnats (Mycetophyloidea) of northern Tomsk Province [In Russ.]. Tr. Nanchno-Issled. Inst. Biol. i Biofis. Tomsk. Gos. Univ. 4: 79-89.

OSTROVERKHOVA, G. P. and A. A. SHTAKEL'BERG. 1969. Family Mycetophilidae [In Russ.]. Opred. po Faune USSR (Fasc. 100). (5, 1). Leningrad. pp. 265-320.

PLASSMANN, E. 1970. Zur Taxonomie der Fungivoridae (Diptera). Senckenberg. Biol. 51: 393-400.

PLASSMANN E. 1972. Morphologisch-taxonomische Untersuchungen an Fungivoridenlarven (Diptera). Deu. Entomol. Zts. (N. F.) 19: 73-99.

PLASSMANN, E. 1977. Neue Pilzmücken aus dem Allgau (Diptera: Mycetophilidae). Nachrictenbl. Bayer. Enomol. 26: 11-14.

PLASSMANN, E. 1978. Pilzmücken aus Messaure in Schweden. II. Luftstrom-Fallenfange (Insecta: Diptera: Mycetophilidae). Senckenberg. Biol. 59: 371-388.

PLASSMANN, E. 1978b. Pilzmücken (Mycetophilidae) aus dem Allgau. Nachrichtenbl. Bayer. Entomol.: 45-57.

PLASSMANN, E. 1980. Neue Pilzmückenfänge aus dem Allgau (Diptera, Mycetophilidae). Mitt. Münch. Entomol. Ges. 70: 15-34.

PLASSMANN, E. 1981. *Mycomyia lindrothi* n. sp. and *Anatella laffooni* Plassm., two new fungus gnats (Diptera, Mycetophilidae). Entomol. Scand. Supple. 15: 251-252.

PLASSMANN, E. 1984. Neue Mitteiluingen von Pilzmücken aus dem Alpenraum (Diptera, Mycetophilidae). Entomofauna 4 (18): 221-233.

SAKHAROVA, A. V. 1971. On fungus gnats (Diptera: Mycetophilidae) of Moscow Province [In Russ.]. Entomol. Obozr. 56: 71-78.

STAEGER, R. C. 1840. Systematisk fortelgnelse over de: Danmark hidtil fundne Diptera. 3ie Stamme, Tipulatiae, Fungicolae. Natur-Hist. Tiddskr. 3: 1-58; 228-288.

TUOMIKOSKI, R. 1966. Generic taxonomy of the Exechiini (Dipt., Mycetophilidae). Ann. Entomol. Fenn. 32: 159-194.

WINNERTZ, J. 1863. Beitrag zu einer Monographie der Pilzmücken. Verh. Zool.-Bot. Ges. Wien. 13: 637-964.

Entomological Review 69(4): 132-145 (1990)