NO vom Fluss Delger mörön, (16 km N von Somon Burenchaan), 1700 m, 17. VII. 1968 (Nr. 1118); zwischen Somon Tosoncengel und Somon Ich-ul, 22 km O von Tosoncengel, 1150 m, 21. VII. 1968 (Nr. 1133). — Central aimak: Tosgoni ovoo, 6—10 km N von Ulan-Baator, 1700 m, 4. VI. 1968 (Nr. 934); id., 4.—8. VI. 1968 (Nr. 936); id., 7.—8. VI. 1968 (Nr. 938); Ulan-Baator, Zaisan im Bogdo ul Gebirge, 5 km S vom Zentrum, 1600 m, 11. VI. 1968 (Nr. 942, 943); 11 km OSO von Somon Bajancogt, 1600 m, 13. VI. 1968 (Nr. 944); id., 1600—1700 m, 26. VII. 1968 (Nr. 1150); 25 km O von Somon Lun, 1200 m, 25. VII. 1968 (Nr. 1146). — 88 ex.

A widely distributed Palaearctic species, ranging across the southern part of the Region from the Canary Islands to Tibet. In Mongolia, it occurs everywhere in the aimaks Uvs, Archangaj, Central, Chentej, Čojbalsan, Chovd, Gobi-Altaj, Bajanchongor, Uburchangaj, Südgobi and Ostgobi.

The larvae are predaceous, feeding on root-lice.

Thaumatomyia rufa (Macquart, 1835). — Uvs aimak: am Fluss Changilcagijn gol, 6 km SW von Somon Baruunturuun, 1350 m, 24. VI. 1968 (Nr. 1010); 22 km WSW von Somon Zuungobi, 980 m, 26. VI. 1968 (Nr. 1018); Südrand des Sees Örög nuur, 1500 m, 28. VI. — 5. VII. 1968 (Nr. 1036). — Chövsgöl aimak: 8 km N von Somon Burenchaan, am Fluss Delger mörön, 1450 m, 16. VII. 1968 (Nr. 1115); zwischen Somon Tosoncengel und Somon Ich-ul, 22 km O von Tosoncengel, 1150 m, 21. VII. 1968 (Nr. 1133). — Bulgan aimak: zwischen Somon Chischig-Öndör und Somon Orchon, 23 km NNO von Somon Chischig-Öndör, 1390 m, 15. VI. 1968 (Nr. 961). — Central aimak: 25 km O von Somon Lun, 1200 m, 25. VII. 1968 (Nr. 1146). — 7 ex.

A widely distributed Palaearctic species, ranging from West Europe to the Primorsk Region of the USSR and to the Kuril Islands. In Mongolia, it is rather common and was recorded from almost all aimaks.

The larvae are predaceous, living in soil and feeding on root-lice.

Thaumatomyia hallandica Andersson, 1966. — Bajan-Ölgij aimak: im Tal des Flusses Chavcalyn gol, 25 km O von Somon Cagaannuur, 1850 m, 3. VII. 1968 (Nr. 1056). — Uvs aimak: 22 km WSW von Somon Zuungobi, 980 m, 26. VI. 1968 (Nr. 1018); zwischen dem See Örög nuur und der Stadt Ulaangom, 2—7 km OSO vom Pass Ulaan davaa, (60—65 km NW von Ulaangom), 1690—1950 m, 28. VI. 1968 (Nr. 1032); am östlichen Hang des Passes Ulaan davaa, zwichen dem See Örög nuur und der Stadt Ulaangom, 2050 m, 6. VII. 1968 (Nr. 1069); 4 km OSO vom Pass Ulaan davaa, zwischen dem See Örög nuur und der Stadt Ulaangom, 1700—1800 m, 6. VII. 1968 (Nr. 1073). — Chövsgöl aimak: 3 km SW von Somon Burenchaan, 1600 m, 21. VI. — 16. VII. 1968 (Nr. 993); Alag Mort, 42 km NO vom Pass Chaldzan Sogotyn davaa, am Fluss Tesijn gol, 1900 m, 14. VII. 1968 (Nr. 1107); 8 km W von Somon Burenchaan, am Fluss Delger mörön, 1450 m, 16. VII. 1968 (Nr. 1115); N von Somon Chatgal am SW-Ecke des Sees Chövsgöl nuur, 1650 m, 18. VII. 1968 (Nr. 1123). — Bulgan aimak: zwischen Somon Chischig-Öndör und Somon Orchon, 23 km NNO von Chisching-Öndör, 1390 m, 15. VI. 1968 (Nr. 961). — Central aimak: Tosgoni ovoo, 6—10 km N von Ulan-Baator, 1700 m, 4. VI. 1968 (Nr. 934); id., 7.—8. VI. 1968 (Nr. 938). — 19 ex.

Previously recorded from Europe, Kazachstan and Mongolia. In Mongolia, it occurs in the aimaks Bajan-Ölgij, Uvs, Zavchan, Chövsgöl, Bulgan, Central, Suchebaator, Čojbalsan, Gobi-Altaj and Ostgobi.

The larvae are predaceous, feeding on root-lice.

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MILICHIIDAE AND CARNIDAE (DIPTERA) FROM MONGOLIA*

By

L. Papp

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Locality data of 7 Milichiid and 13 Carnid species from Mongolia. All species are new to Mongolia; 12 of them new also to science. A key to the *Meoneura* species is given.

In the course of his expeditions to Mongolia (1963—1968), Dr. Z. Kaszab collected 163 Milichiid and 979 Carnid (all relegable to *Meoneura*) specimens, and thereby made it possible to take the first steps in exploring the Mongolian fauna of these two Dipterous families. To this considerable material, rich in species and individual numbers, the small but valuable material collected by P. Somogyi in 1971 is also added (Carnidae: 57 *Meoneura* specimens).

The study of the Mongolian *Meoneura* species furnished new data on the connection of the Inner Asiatic and North American faunas. I found a North American species (*M. forcipata* Sabrosky, 1959) besides two other ones which were known so far only from Europe and from North America (*M. flavifacies* Collin, 1930, *M. triangularis* Collin, 1930) as well as two other species (*M. mongolica* sp. n., *M. quadrisetosa* sp. n.) with close Nearctic allies (*M. digitata*-group, cf. Sabrosky, 1959). Dr. Z. Kaszab's (1963—1968) and P. Somogyi's label data contain valuable supplements on the habitats and ecology of some species (given in the descriptive text). (Concerning the transliteration of P. Somogyi's locality data see Papp, 1973.) Since these materials still lack some genera and many species with a Palaearctic range, even with due regard to the considerable difference of the Central Asiatic fauna from the European one, we may still expect some further species from Mongolia.

All type-specimens of the species described hereunder are deposited in the Hungarian Natural History Museum, Budapest.

I must express my sincere thanks also in this place to Dr. Z. Kaszab, Director General, for making available this valuable and interesting material for study.

* Ergebnisse der zoologischen Forschungen von Dr. Z. Kaszab in der Mongolei (Nr. 388.

Milichiidae

1. Phyllomyza mongolica sp. n.

A species with a highly greyish pruinosity, relegable to the *P. securicornis* FALLÉN, 1823, alliance.

Head and eye considerably higher than wide. Frons only with frontal triangle and orbitals shining, otherwise entire frons opaque black. Convergent postverticals, outer and inner verticals, 3 pairs of exclinate and slightly reclinate upper orbitals, and 2 pairs of inclinate lower orbitals robust; interfrontals short and arranged in largely 2 rows, inner orbitals similarly short but well ordered. Third joint of male antenna not conspicuously large (in contrast to that of *securicornis*), rounded, with only a slight upper angle, basal and lower parts of its inner side yellowish red, as also joint 2, its upper portion a very pallid grey with a yellowish tinge. Joint 3 of females considerably smaller, darker, similar in coloration, but red rather basally only. Joint 3 and arista of males very shortly pubescent (in contrast to those of *securicornis*). Genae very wide, width of its narrowest part related to height of eye as 9 : 23. Male palpi very large, bulbous, basally yellowish red, otherwise reddish grey, with merely very short, setiform hairs. Female palpi with dense and strong bristles above and below. Thorax dorsally with 4 dorsocentrals, its chaetotaxy agreeing with that of *securicornis*; apical scutellars convergent. Wing white, veins light brown. Index of media (m_x) highly varying (as in all members of the genus!), males: 2.78—3.23, females: 3.72—3.90. Halteres light yellow. Legs dark grey to black, genu, end of femora and of tibia, as well as tarsal joints 1—3 of all legs light yellowish red (in extreme cases fore leg with merely a dark ring left), tarsal joints 4—5 yellowish grey to dark grey. Length of wing: holotype ♂: 2.41, mm, paratype ♂♂: 2.04—2.41, paratype ♀♀: 2.14—2.45 mm; width of wing: holotype ♂: 1.05 mm, paratype ♂♂: 0.95—1.05 mm, paratype ♀♀: 0.97—1.09 mm.

Caudal part of fork of apically incised male surstylus slightly longer and essentially wider than proximal part; entire surstylus shorter and incision smaller than in *securicornis* males.

Body length: holotype ♂: 2.28 mm (abdomen, however, slightly contracted, it may be slightly longer in live state); paratype ♂♂: 2.01—2.28 mm; paratype ♀♀: 2.30—2.89 mm.

Holotype ♂: Bulgan aimak: 30 km NNW von Somon Daschinčilen, 1200 m, 15. VI. 1968 (Nr. 959), DR. Z. KASZAB.

Paratypes: 8 ♂, 8 ♀: data as for holotype. — Central aimak: 2 ♀: Kerulen, Njalga Somon, Burgastin chosu, 1200 m, 3. VII. 1963 (Nr. 77); 3 ♀: 26 km O von Somon Lun, 1180 m, 4. VII. 1964 (Nr. 262); 2 ♂, 13 ♀: Zuun-Chara, 850 m, 8. VII. 1964 (Nr. 281); 1 ♀: Zuun-Chara, Duusch ul, 1100 m, 8. VII. 1964 (Nr. 284); 1 ♂, 1 ♀: Ulaan chodag, 16 km S von Somon Öndörschireet, 1500 m, 24. VII. 1966 (Nr. 739). — Archangaj aimak: 1 ♂: Koschoo zaidam am Chogschin-Orchon, 35 km N von Somon Lun, 1490 m, 1. VII. 1964 (Nr. 241); 1 ♀: Changaj Gebirge, Cecerleg, 1650 m, 19. VI. 1966 (Nr. 542). — Uburchangaj aimak: 1 ♂: Arc Bogd ul, cca 20 km S von Somon Chovd, 1760 m, 22. VI. 1964 (Nr. 170); 1 ♂, 2 ♀: Changaj Gebirge, 2 km S von Somon Schanch, 1690 m, 30. VI. 1964 (Nr. 230). — Chentej aimak: 1 ♂: 15 km O von Öndörchaan, 1 km S von Fluß Kerulen, 1000 m, 29. VII. 1965 (Nr. 325); 1 ♀: 10 km W von Somon Delgerchaan, 1250 m, 24. VIII. 1965 (Nr. 476). — Chövsgöl aimak: 2 ♀: 6 km WNW von Somon Tosoncengel, 1480 m, 18. VI. 1968 (Nr. 978); 1 ♀: 3 km SW von Somon Burenchaan, 1650 m, 21. VI.—16. VII. 1968 (Nr. 993); 1 ♀: cca 10 km NO vom Fluß Delger mörön (cca 16 km N von Somon Burenchaan), 1700 m, 17. VII. 1968 (Nr. 1118); 2 ♀: zwischen Somon Tosoncengel und Somon Ich-ul, 22 km O von Tosoncengel, 1150 m, 21. VII. 1968 (Nr. 1133). — Suchebaator aimak: 2 ♀: Chadatin-bulan, 60 km N von Somon Bajanterem, 950 m, 31. VII. 1965 (Nr. 340); 1 ♂: 44 km SSW von Baruun urt, 1050 m, 2.—3. VIII. 1965 (Nr. 349). — Uvs aimak: 1 ♂, 1 ♀: Sandgebiet Altan els, 35 km WNW von Somon Tes, 1400 m, 23. VI. 1968 (Nr. 1007). — Mittelgobi aimak: 3 ♀: 20 km S von Somon Delgercogt, 1480 m, 13.—14. VII. 1967 (Nr. 915). — Südgobi aimak: 1 ♀: Gurban Sajchan ul Gebirge, 15 km S von der Stadt Dalanzadgad, 1750 m, 13. VI. 1967 (Nr. 794). — 63 ex.

Phyllomyza mongolica sp. n. differs from *securicornis* in the male having a smaller and not angular joint 3 of the antenna, its basal part reddish, the arista and joint 3 only shortly pubescent, palpi without strong bristles; in *rubricornis* SCHMITZ, 1923, the colour of the male antenna resembles that of *mongolica*, but it also differs in the other features mentioned above. The females of the new species differ from those of *securicornis* by the short pubescence of joint 3 and the slightly wider genae, but they can be separated from the *securicornis* females by a comparison of series only.

The larvae probably live in birds' nests; the imagos can be collected on flowers (cf. KASZAB, 1963—1968, Nr. 241, etc.).

2. **Desmometopa sordida** (FALLÉN, 1820). — I found a single female in the material; its features do not differ from those of the European specimens, but the animal is rather small (2.07 mm). Reported also from Siberia (Tomsk: HENNIG, 1937).

Locality. Central aimak: 1 ♀: Tosgoni ovoo, 6—10 km N von Ulan-Baator, 1700 m, 7.—8. VI. 1968 (Nr. 938). — 1 ex.

3. **Neophyllomyza acyglossa** (VILLENEUVE, 1920). — In external morphology, the specimens agree with the European ones. As far as I know, the following data are the first extra-European ones for this species.

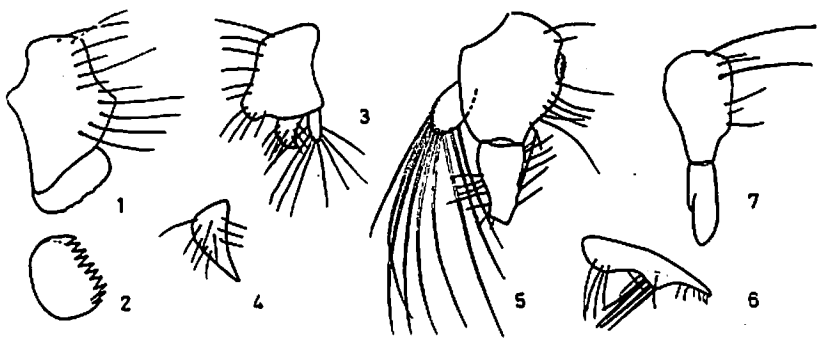
Localities. Central aimak: 1 ♀: Ulan-Baator, Zaisan im Gebirge Bogdo ul, 5 km S vom Zentrum, 1600 m, 11. VI. 1968 (Nr. 942). — Archangaj aimak: 1 ♀: Changaj Gebirge, zwischen Somon Ichtamir und Somon Čuluut, cca 20 km W von Somon Ichtamir, 3 km S vom Tal des Flusses Chanuj gol, 2150 m, 20. VI. 1966 (Nr. 547). — Bulgan aimak: 1 ♂: zwischen Somon Chischig-Öndör und Somon Orchon, 23 km NNO von Chischig-Öndör, 1390 m, 15. VI. 1968 (Nr. 963); 1 ♂, 2 ♀: 7 km NW von Somon Chanžargalant, 1350 m, 16. VI. 1968 (Nr. 967); 1 ♂: ibid., 16. VI.—22. VII. 1968 (Nr. 970.) — 7 ex.

4. Leptometopa kaszabi sp. n.

A species with shiny black thorax and abdomen, but with light legs.

Head almost as long as high; orbitals hardly distinct from ochreous yellow to dark brown frons; frontal triangle shiny, scute-angled, terminating distally from middle of frons, eventually only in its posterior third. Convergent postverticals, inner and outer verticals, ocellars, 2 pairs of exclinate upper orbitals and 2 pairs of inclinate lower orbitals very weak and short;

interfrontals also very weak hairs excepting those originating on anterior margin of frons, joined laterally by some moderately long and thin bristles. Antennae, facial plate, cheeks, genae and palpi yellow to yellowish red. Arista with microscopically short pubescence. Genae glabrous, vibrissa and peristomals very short. Genae very wide, in its narrowest part equalling 1/3—3/11 of eye length, or 12/33—1/2 of eye width. Thoracic chaetotaxy: 1 *h*, 2 *np*, 1 small *sa*, 1 robust and 1 weaker and more medially situated *pa*, 1 *dc*, 2 *sc*, 1 *ptp*, 1 *st* pairs of bristles. Wing hyaline, veins light yellow. Wing length: holotype ♂: 1.60 mm, paratypes: 1.25—1.93 mm, wing width: holotype: 0.60 mm, paratypes: 0.46—0.78 mm. Median vein index (m_x) 3.1. Femora dark brown, their



Figs. 1—7. 1—2 = *Leptometopa kaszabi* sp. n., male: 1 = genital vault and surstylus in profile, 2 = surstylus at its largest expansion; 3—4 = *Meoneura asiatica* sp. n., male: 3 = genital vault and genitalia laterally, 4 = surstylus at its largest expansion; 5—6 = *Meoneura inversa* sp. n., male: 5 = genital vault and genital parts in profile, 6 = surstylus posteriorly: 7 = *Meoneura quadrisetosa* sp. n., male genital vault and surstylus in profile

distal end occasionally more extensively yellow, fore tibia yellow, mid and hind tibia dark brown medially, on both ends yellow, occasionally with merely a dark brown ring left in middle of tibia, but hind tibiae of males invariably wholly dark brown. All tarsal joints vivid yellow, at most only joint 5 slightly darker. Hind femur, and especially hind tibia, of males heavily incrassate tibia also flattened (as in males of *latipes* MEIG.). Apical part of male aedeagus long and thin, surstylus also very characteristic (Fig. 2), dentate along its median edge, thus distinct from its allies. Genital vault (Fig. 1) forming an obtuse peak ventrally, its distal edge connected to surstylus along some distance.

Body length: holotype ♂: 1.80 mm, paratypes: 1.58—1.80 mm.

Holotype ♂: Südgobi aimak: SW Rand des Salzsees Dund gol (am "alten" Somon Gurban-tes), 1300 m, 18. VI. 1967 (Nr. 816), DR. Z. KASZAB.

Paratypes: 4 ♂, 4 ♀: data as for holotype; Südgobi aimak: 2 ♂: Bajan Zag, 20 km NO von Somon Bulgan, 1200 m, 7. VII. 1967 (Nr. 895). — 11 ex.

Leptometopa kaszabi sp. n. differs from its allies with 1 *ptp* and a glabrous mesopleura as well as with a flattened and incrassate male hind tibia, by its shiny black colour of the thorax and abdomen, the coloration of the frons, and the characteristic male surstylus.

5. **Leptometopa latipes** (MEIGEN, 1830). — Ranging largely in the Holarctic Region, in North America occurring southwards as far as Cuba; the record from Formosa needs revision; and the species was found also in NE Sechwan, China. The larvae live in birds' nests, at times also in excrement; the imagos are commensal with spiders and insects.

Locality: Central aimak: 1 ♀: Zuun-Chara, 850 m, 8. VII. 1964 (Nr. 281). — 1 ex.

6. **Leptometopa nivipennis** (STROBL, 1900). — Known so far from Europe, N. Africa, and Central Asia (Buchara, Persian Baluchistan). The species is apparently distributed everywhere in Mongolia. The imagos can be collected in flowers, but the life-history of the larvae is not known. (The material was not carefully prepared, and the specimens are in a rather bad state of preservation, hence the determination of sex is in many cases open to doubt.)

Localities. Ostgobi aimak: 5 ♂, 4 ♀: 40 km NW von Chara-Eireg, 1150 m, 30. VI. [19]63 (Nr. 62). — Archangaj aimak: 4 ♂, 6 ♀: Changaj Gebirge, 8 km W von Somon Urdtamir, 1620 m, 18. VI. 1966 (Nr. 537). — Südgobi aimak: 1 ♂: Nojon nuruu, Grenzposten Ovot Chuural, 1500 m, 21. VI. 1967 (Nr. 829). — Chovd aimak: 3 ♀: 3 km N von Somon Uenč, im Tal des Flusses Uenč gol, 1450 m, 2.—3. VII. 1966 (Nr. 614); 5 ♂, 13 ♀: 10 km SSW von Somon Bulgan, 1200 m, 4.—5. VII. 1966 (Nr. 628); 4 ♀: Mongol Altaj Gebirge, cca 35 km N von Somon Uenč, 1750 m, 8. VII. 1966 (Nr. 646); 2 ♂, 1 ♀: Toroo, am Südseite der Zargalant chajrchan Gebirge, cca 50 km SO vom See Char us nuur, 1300 m, 12. VII. 1966 (Nr. 675). — Bulgan aimak: 1 ♂: 30 km NNW von Somon Daschinčilen, 1200 m, 15. VI. 1968 (Nr. 959). — Uvs aimak: 2 ♂: 22 km WSW von Somon Zuungobi, 980 m, 26. VI. 1968 (Nr. 1018); 6 ♀: am Fluß Chöndlön gol, 32 km NW von der Stadt Ulaangom, 1200 m, 27. VI.—7. VII. 1968 (Nr. 1028). — Gobi Altaj aimak: 2 ♀: zwischen dem See Beger nuur und Somon Beger, 1400 m, 25.—26. VI. 1966 (Nr. 578). — 59 ex.

7. **Madiza glabra** FALLÉN, 1820. — A Holarctic species; its occurrence in Mongolia was to be expected, and the capture data supplement satisfactorily the known occurrences (cf. HENNIG, 1937). Distributed evenly in Mongolia.

Localities. Central aimak: 1 ♂: Zuun-Chara, 1390 m, 8. VII. 1963 (Nr. 98); 1 ♂: Boro gol, 20 km O von Zuun-Chara, 1400 m, 9. VII. 1963 (Nr. 106); 1 ♂: 126 km N von Ulan-Baator am Wege, 1100 m, 9. VII. 1964 (Nr. 286); 1 ♀: Ulan-Baator, Nucht im Bogdo ul, 12 km SO vom Zentrum, 1500—1800 m, 22.—23. VII. 1965 (Nr. 298); 1 ♀: ibid., 1650 m, 4. VI. 1966 (Nr. 493); 1 ♂: Ulan-Baator, in der Stadt, 1350 m, 21.—25. VII. 1965 (Nr. 301); 1 ♀: Ulaan chodag, 16 km S von Somon Öndörschireet, 1500 m, 24. VII. 1966 (Nr. 739); 1 ♂, 1 ♀: 25 km O von Somon Lun, 1200 m, 25. VII. 1968 (Nr. 1146). — Čojbalsan aimak: 1 ♂: 20 km SW von Somon Bajan-uul, 820 m, 18. VIII. 1965 (Nr. 444). — Chovd aimak: 3 ♂, 1 ♀: 3 km N von Somon Uenč, im Tal des Flusses Uenč gol, 1450 m, 2.—3. VII. 1966 (Nr. 614). — Südgobi aimak: 1 ♂: SW Rand des Salzsees Dund gol (am "alten" Somon Gurban-tes), 1300 m, 19. VI. 1967 (Nr. 819); 2 ♀: Tachilga ul Gebirge, zwischen Somon Cogt-Ovoo und Dalanzadgad, 1550 m, 8. VII. 1967 (Nr. 900). — Ostgobi aimak: 1 ♀: 40 km NW von Chara-Eireg, 1150 m, 30. VI. 1150 m, 30. VI. [19]63 (Nr. 62). — Bajan-Ölgij aimak: 1 ♀: rechtes Ufer des Flusses Chovd gol bei der Stadt Ölgij, 1750 m, 30. VI. 1968 (Nr. 1046). — Gobi Altaj aimak: 1 ♀: Zachuj Gobi, 10 km N von Chatan Chajrchan Gebirge, 1150 m, 27. VI. 1966 (Nr. 591). — Bajanchongor aimak: 1 ♀: Cagan Bogd ul, cca am halben Weg zwischen der Quelle Talyn bilgech bulag und Grenzposten Caganbulag, 25 km WSW von der Quelle, 1450 m, 24. VI. 1967 (Nr. 842). — 21 ex.

Carnidae

The material represents 13 species of a single genus, *Meoneura* RONDANI, 1856. These minute black flies are hard to identify, in most of the species with recourse to the male genitalia only. The genus was well described by HENNIG (1937) and SABROSKY (1959), thus it will not be reiterated here. However, the nomenclature of the genital parts is not uniform, and may be tabulated as follows:

COLLIN, 1930	HENNIG, 1937	SABROSKY, 1959	This paper
shell	Aussensklerit	ninth tergum	genital vault
side-lamellae	L_2 (Lamellen 2)	forceps	surstylus
—	L_1 (Lamellen 1)	lamella	lamella

The designations used in this paper can be justified by the following considerations: since in this family it is still not proven that the outer shell of the genitalia consists exclusively of the ninth tergite, I believe that the use of the easily understandable yet "neutral" term genital vault is more suitable. The genital part named surstylus appears to be homologous with that of other Acalyptrate fly families studied by me, and it is unambiguous for most dipterologists. Lamella: surely not a gonite, and I also think it improbable (based on considerations not expounded here) that it were a derivation of the surstylus. even though it is fused (in my opinion, secondarily) with it in several species.

1. **Meoneura asiatica** sp. n.

A medium-sized species with a high black sheen on the thorax and abdomen, and with white-knobbed halteres.

Frons, facial plate and genae black, with only anterior 1/3—2/5 of frons occasionally lighter: a dark reddish brown; however, half of specimens with pure black frons. Frontal triangle strongly shiny, extending to anterior 16/19—5/6 of frons. Genae moderately wide, about 7/23 of eye length. Genal bristles very robust. Three pairs of strong dorsocentrals present. Legs, including tarsal joints, black. Fore femur with 3 long and thick posteroventral bristles. Metatarsi long. Wing with a pallid brown tinge, also veins merely light brown, costa without spiniform bristles. Knob of halteres white, stalk brown. Wing length: wings in holotype partly broken, not measurable, those of paratypes 1.25—1.42 mm. wing width: paratypes: 0.54—0.60 mm. Male genital vault with some short and some moderately long yet not too thick bristles, vault dorsally not long (Fig. 3). Genital configuration resembling that of *flavifacies* COLLIN, 1930, i.e., surstylus comparatively small with a lamella bearing long bristles, but surstylus shaped otherwise (Fig. 4): evenly wide basally for a section, then gradually tapering into a distinct apex, with many, moderately

strong bristles. Lamella widening proximally and widely rounded, with bristles essentially longer and thicker than in *flavifacies*.

Body length: holotype ♂: 1.49 mm, paratypes: 1.36—1.42 mm.

Holotype ♂: Central aimak: Žargalant, jaktrágyáról (= on yak droppings), 15. VII. 1971, leg. P. SOMOGYI.

Paratypes: Central aimak: 1 ♀: Žargalant, lótrágyáról (= on horse droppings), 16. VII. 1971, leg. P. SOMOGYI. — Chovd aimak: 2 ♂: Mongol Altaj Gebirge, cca 35 km N von Somon Uenč, 1750 m, 8. VII. 1966 (Nr. 646), DR. Z. KASZAB. — Bulgan aimak: 1 ♀: Daschinčilen, jak-lótrágyáról (= on yak and horse droppings), 2. VIII. 1971, leg. P. SOMOGYI. — Chentej aimak: 1 ♂, 2 ♀: 10 km W von Somon Delgerchaan, 1250 m, 24. VIII. 1965 (Nr. 476). DR. Z. KASZAB. — 8 ex.

M. asiatica sp. n. is an ally of *M. flavifacies* COLL., but its frontal triangle is longer, the body more shiny, the frons much more frequently pure black. Safely identifiable only by the shape and bristles of the male genitalia (Figs. 3, 4; cf. Figs. 10 by SABROSKY, 1959).

The larvae probably develop in yak and horse droppings.

2. **Meoneura flavifacies** COLLIN, 1930. — Known so far from Europe (England to Hungary) and North America. Despite the fact that, contrary to the description of the species, the present specimens have neither a yellowish frons anteriorly nor a yellow face, but in one of them (Bulgan aimak) the anterior 1/3 of frons is orange, while in the other (Central aimak) the same is dark brown; otherwise they agree with COLLIN's (1930) and SABROSKY's (1959) descriptions. The identification of both specimens was based on a study of the genitalia. The exemplars were collected on the edge of coniferous or coniferous-birch forests.

Localities. Central aimak: 1 ♂: Bugijn až achuj, im Gebirge Bogdo ul, 36 km SW von Ulan-Baator, 1650 m, 10. VI. 1968 (Nr. 939). — Bulgan aimak: 1 ♂: zwischen Somon Chischig-Öndör und Somon Orchon, 23 km NNO von Somon Chischig-Öndör, 1390 m, 15. VI. 1968 (Nr. 963). — 2 ex.

3. **Meoneura forcipata** SABROSKY, 1959. — An extremely interesting species. SABROSKY described it on the basis of a single specimen from Canada (Mt. Revelstok, British Columbia). Contrarily to the description, I believe that the long, setose appendix in the male genitalia is not a lamella, but the surstylus (= forceps = L_2), because it originates well discernibly on the genital vault, as also in SABROSKY's drawing (1959: Fig. 8). The genitalia of my specimens agree with this illustration, including the smallness of the genital vault, especially medio-dorsally. The aedeagus curves posteriorad and is very thick. Apart from the genitalia, the identity of the conspicuous external characteristics also substantiate the correct specific naming (the pruinosity and shortness of the frontal triangle, the anterior 2 pairs of weak dorsocentrals, the white coloured knob of the halteres). The Mongolian material also included the first known female exemplar, but it displayed no further characteristics to supplement SABROSKY's description.

Locality: 2 ♂, 1 ♀: Zavchan aimak: Choit chunch, 26 km ONO vom See Telmen nuur, 2150 m, 13. VII. 1968 (Nr. 1104). — 3 ex.

4. **Meoneura inversa** sp. n.

A medium-sized species with moderately pruinose black body and legs.

Head black, but anterior 1/3—2/5 of frons dark reddish brown. Frontal triangle shiny, its apex obtuse, extending to anterior 16/23—17/23 of frons. Gena wide, its narrowest section being exactly 1/3 of eye length. Three pairs

of distinct dorsocentrals. Legs, including tarsal joints, black. Posteroventral side of fore femur with 2 very strong bristles on distal half, and with also 2 weaker ones on proximal half. Legs comparatively thin and short, but metatarsi long (though considerably shorter than in *setipyga* sp. n.). Wings brownish, veins light brown, costa without spiniform bristles. Wing length: bending downwards on male holotype, thus not measurable, about 1.53 mm; paratypes: 1.58—1.75 mm; wing width: holotype: 0.59 mm, paratypes: 0.60—0.62 mm. Knob of halteres yellow, stalk brown. Male genital vault dorsomedially short, with short and with moderately long, thin bristles, and without rigid hairs (Fig. 5). Male genitalia very characteristic, very different from those of all known species. Surstylus relatively long (Figs. 5, 6), of nearly equal width throughout, apically apparently truncate, its distal edge with 1 reclinate to erect spine and some bristles, its inner side with several (4—5) spines (hence its name: inversa; contrarily to its allies, spines of surstylus originating not on outer side, but directed into genital cavity). Lamella with 6—7 very long, rigid, extremely thick, colourless hairs, in a flabelliform arrangement.

Body length: holotype ♂: 1.75 mm, paratypes: 1.75—1.82 mm.

Holotype ♂: Bajan-Ölgij aimak: im Tal des Flusses Chavcalyn gol, 25 km O von Somon Cagaannuur, 1850 m, 3. VII. 1968 (Nr. 1056), Dr. Z. Kaszab.
Paratypes: 1 ♀: data as for holotype. — Mittelgobi aimak: 1 ♂: 20 km S von Somon Delgercogt, 1480 m, 9. VI. 1967 (Nr. 779). — 3 ex.

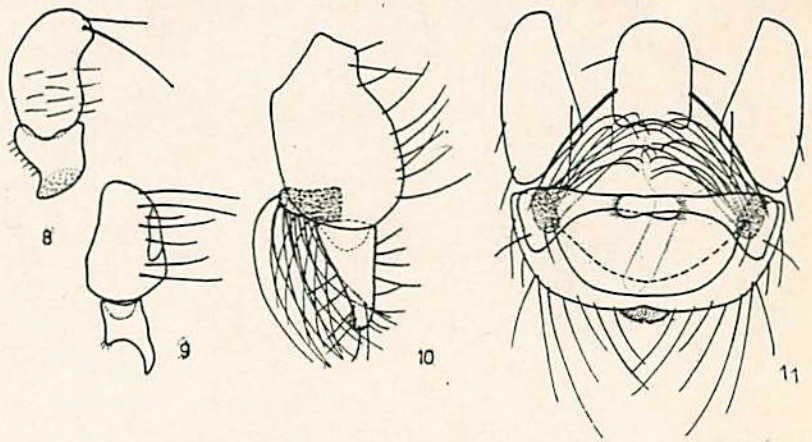
M. inversa sp. n. belongs in the *paraseducta* species-group known so far only from Mongolia (cf. identification key), and N-Pakistan, characterized by an elongated body, long metatarsi, at least 2 robust posteroventrals on the fore femur, 3 pairs of dorsocentrals, the long or peculiarly shaped male surstylus, and especially the long, thick, rigid bristles originating on the lamella. *M. inversa* sp. n. is distinguishable by the smaller body size, darker frons, longer frontal triangle, and shorter legs, and especially by the wholly unusual bristles of the male surstylus: the strong spiniform ones on the inner side of the surstylus. Its nearest relative is *M. hennigi* Gregor, 1971: Acta ent. bohemoslov., **68**: 54.

5. Meoneura kaszabi sp. n.

Abdomen shiny black, except its base and thorax; scutellum, however, pruinose.

Head in profile rounded, frons, facial plate and genae black, at most anterior margin of frons dark brown. Frons microscopically striated, moderately shiny; frontal triangle shiny, extending to anterior 15/22 of frons. Postvertical bristles very short and divergent. Gena very wide, at its narrowest section 6/22—3/7 as wide as eye length. Acrostichals of thorax relatively very long, arranged in about 4 irregular rows between dorsocentral lines, no ptero-

pleurals, and only a single pair of dorsocentrals. Legs entirely black, at most tarsal joints brown. Posteroventral surface of fore femur mostly with 3—4, yet not seldom with even more long, thick bristles. Metatarsi short. Bristles of costa not short, but considerably thinner and shorter than in *mongolica* sp. n., or in *quadrisetosa* sp. n. Wing brown, veins light brown. Halteres largely brown, apical part of knob yellow, rarely entire knob yellow. Wing length: holotype ♂: wing bending downwards at base, not measurable, about 1.04 mm; paratype ♂♂: 0.80—1.08 mm, paratype ♀♀: 0.82—1.18 mm; wing width:



Figs. 8—11. 8 = *Meoneura kaszabi* sp. n., male genital vault and surstylus in profile; 9 = *Meoneura mongolica* sp. n., male genital vault and surstylus in profile; 10—11 = *Meoneura paraseducta* sp. n., male: 10 = genital vault and surstylus in profile, 11 = postabdomen with sternite 5

holotype ♂: 0.47 mm, paratype ♂♂: 0.31—0.48 mm, paratype ♀♀: 0.35—0.51 mm. Male genital vault dorsomedially very short, slightly laterally with one very thick and long bristle on each side (Fig. 8), ventrolaterally with short, thick bristles. Surstylus short, basally very wide, in profile with a proclinate, obtuse apex, its proximal edge with a row of short, thin bristles.

Most specimens in a rather bad state of preservation, since they were taken from soil trap materials, but several features are so characteristic that representatives of the species can still be recognized easily.

Body length: holotype ♂: 1.29 mm, paratypes ♂♂: 0.90—1.30 mm, paratype ♀♀: 0.87—1.36 mm.

Holotype ♂: Mittelgobi aimak: Choot bulag, zwischen Chuld und Somon Delgerchangaj, 38 km ONO von Delgerchangaj, 1480 m, 10. VI. 1967 (Nr. 782), Dr. Z. Kaszab.
Paratypes: 15 ♂, 18 ♀: data as for holotype. — Central aimak: 33 ♂, 78 ♀: 12 km S von Somon Bajanbaraat, 1380 m, 8. VI. 1967 (Nr. 774). — Chentej aimak: 2 ♂, 2 ♀: 15 km O von Öndörchaan, 1 km S vom Fluß Kerulen, 1000 m, 20. VII. 1965 (Nr. 327). — 149 ex.

M. kaszabi sp. n. is an easily recognizable small species: it differs from its allies with short metatarsi and one pair of dorsocentrals by the shiny thorax and abdomen, the not heavily setose costa, the more sparsely arranged acrostichals, the shape of the male surstylus and the characteristically shaped and setose genital vault (Fig. 8).

6. Meoneura mongolica sp. n.

A small species with pruinose thorax and scutellum, moderately shiny abdomen and with wholly black legs.

Head comparatively large, as wide as thorax. Frons, facial plate and genae black, but anterior margin of frons, indeed, also around apex of frontal triangle, often a lighter brown to yellowish brown; this colour occasionally extending to cheeks but never to genae. Frons apparently microscopically striated, frontal triangle shiny, approaching anterior margin of frons, extending at least to its anterior 5/6. Postverticals slightly divergent, rarely parallel. Gena wide, its narrowest section 7/19 of length of weakly oval eye. Acrostichals disarranged but not sparse, relatively robust. Only one pair of dorsocentrals present, without a trace of any preceding bristle. No pteropleurals, prescutellars significant. Legs comparatively short and thick. Fore femur posteroventrally with at least 2—3 long, thick bristles. Apicoventral bristle of mid tibia relatively strong. Metatarsi short. Wing brownish, veins light brown. Beyond conjointment of r_1 into costa, a row of comparatively thick and long, spiniform setae present. Halteres brown, only apical-dorsal part of their knob yellow. Wing length: holotype ♂: 1.07 mm, paratype ♂♂: 0.90—1.18 mm, width: holotype ♂: 0.43 mm, paratype ♂♂: 0.35—0.45 mm. Perianally on male genital vault with 7 pairs of moderately long or long bristles (always shorter and thinner than in *quadrisetosa* sp. n.) present in more or less 2 concentric circles (Fig. 9). Aedeagus relatively short, slightly arcuate caudally, thickening from middle to obtuse apex. Though surstylus resembling that of *digitata* SABR., inner branch of its fork essentially shorter, with short hairlets, both branches relatively more removed from each other, longer branch not proclinate but curving slightly backwards with only its relatively acute apex proclinate (craniad).

Body length: holotype ♂: 1.13 mm, paratype ♂♂: 0.88—1.41 mm.

Holotype ♂: Central aimak: 12 km S von Somon Bajanbaraat, 1380 m, 8. VI. 1967 (Nr. 774), DR. Z. KASZAB.

Paratypes: 242 ♂: data as for holotype. — Südgobi aimak: 26 ♂: Tachilga ul Gebirge, zwischen Somon Cogt-Ovoo und Dalanzadgad, 68 km S von Cogt-Ovoo, cca 1550 m, 12. VI. 1967 (Nr. 792): 1 ♂: ibid., 8. VII. 1967 (Nr. 900). — Mittelgobi aimak: 7 ♂: 20 km S von Somon Delgercogt, 1480 m, 9. VI. 1967 (Nr. 779); 58 ♂: Choot bulag, zwischen Somon Chuld und Somon Delgerchangaj, 38 km ONO von Delgerchangaj, 1480 m, 10. VI. 1967 (Nr. 782). — Ostgobi aimak: 1 ♂: 40 km NW von Chara-Eireg, 1150 m, 30. VI. 1963 (Nr. 62). — Uburchangaj aimak: 1 ♂: Arc Bogd ul, cca 20 km S von Somon Chovd, 1760 m, 22. VI. 1964 (Nr. 171). — 337 ex.

M. mongolica sp. n. belongs to the alliance of *M. digitata* SABROSKY, 1959 (North America), because it has only one pair of dorsocentrals and its costa emits strong and spiniform bristles, but the postverticals are not converging, body and wings are considerably shorter, all tarsi are black, also the surstylus has another form, the halteres are not whitish yellow but brown, and only the apical part yellow. From *quadrisetosa* sp. n., it differs by a darker frons, but mainly by the shape of the male genitalia and the different chaetotaxy of the genital vault. I was unable to differentiate the females of *mongolica* and *quadrisetosa* (see also below).

Similarly to the preceding species, also these exemplars were found in soil traps (some of them containing also dead reptiles).

7. Meoneura paraseducta sp. n.

A weakly pruinose species with shiny black body and legs.

Frontal triangle shiny, terminating in an obtuse apex in anterior third of frons, anterior 2/5 of frons orange red, also cheeks, upper part of gena also slightly lighter, cheeks and genae otherwise black, like rest of frons. Gena wide, at its narrowest section 6/14—6/13 as wide as length of eye. Vibrissa hardly shorter than longest peristomal, with a nearly as long peristomal originating immediately below it. Thorax with 3 definitely strong dorsocentrals, but no pteropleural. Tarsal joints also black, metatarsi long and thin. Fore femur with 2 very robust bristles posteroventrally. Ventroapical of mid tibia relatively thin and short. Wing yellowish brown, veins hardly darker, costa without spiniform setae. Wing length: wing of holotype curving downwards, not precisely measurable, about 1.35 mm, paratype ♂: 1.40 mm, wing width: about 0.60 mm, in paratype: 0.59 mm. Male abdomen with an extremely conspicuous, very thick and long pair of bristles on sternite 5 (Fig. 10). Genital vault dorsomedially not long, surstylus very long, comparatively narrow (slightly resembling that of *seducta* COLLIN, 1937), with short and moderately long setiform bristles (Fig. 11), lamella short, hidden, with very long, colourless, thick and rigid hairs. Genital vault with some long but relatively thin setae, without any long ones which characterize *setipyga* sp. n.

Body length: holotype ♂: 1.41 mm, paratype ♂: about 1.47 mm.

Holotype ♂: Archangaj aimak: Koschoo zaidam am Chogschin-Orchon, 35 km N von Somon Lun, 1490 m, 1. VII. 1964 (Nr. 241), DR. Z. KASZAB.

Paratype ♂: Südgobi aimak: Tachilga ul, zwischen Somon Cogt-Ovoo und Somon Dalanzadgad, 1550 m, 12. VI. 1967 (Nr. 792). — 2 ex.

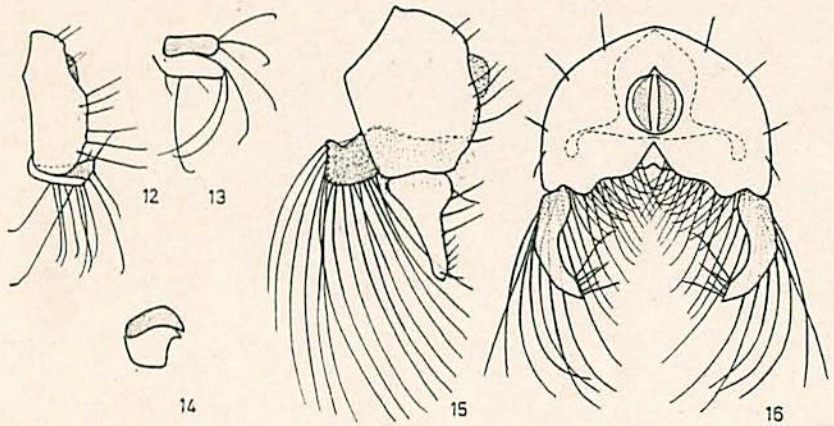
M. paraseducta sp. n. is related to *setipyga* sp. n., and to *pseudoseducta* sp. n., but differs by the smaller size, the darker colour anteriorly on the frons, a peristomal arising immediately at vibrissa, the very thick and long pair of setae in sternite 5 of males, and mainly by the shape of the surstylus.

The holotype was extracted from a *Milvus* nest, the paratype was found in a soil trap.

8. Meoneura parva sp. n.

A small-sized, pruinose species.

Head black, only anterior margin of frons and lunula with a dark reddish brown tinge. Frontal triangle long, shiny, well separable from the other, apparently striated part of frons, extending to anterior 4/5 of frons. Gena medium wide, its narrowest section 7/20 of length of nearly circular eye.



Figs. 12—16. 12—14 = *Meoneura parva* sp. n., male: 12 = genital vault and genital parts laterally; 13 = surstylus and lamella in a semi-ventral view; 14 = surstylus and lamella inferiorly (without bristles); 15—16 = *Meoneura pseudoseducta* sp. n., male: 15 = genital vault and genital parts laterally, 16 = genital vault and genital parts posteriorly

Thorax dorsally with only one pair of robust dorsocentrals, all other setae inseparable as macrochaetae, since acrostichal and dorsocentral macrochaeta apparently very long. Fore femur with 3 robust bristles posteroventrally. Legs wholly black. Metatarsi short, but not so thick as in *mongolica* sp. n. Costal bristles of wing strong, but not spiniform, costa proper slightly thinner as in *mongolica* sp. n. Wing very finely suffused brownish, veins light brown. Wing length: holotype with wrinkled wings, not well measurable, about 1.24 mm, width not measurable at all; paratype ♂: 1.24 mm, width: 0.51 mm. Knob of halteres yellow to light ochreous yellow, stalk brown. Male genital vault small, also dorsomedially short, with rather much, moderately long and not thick bristles. Surstylus and lamella intricately connected (Figs. 12—14; I attempted to illustrate them in two profiles), both with long, comparatively thick, colourless, rigid, apically curved bristles. Surstylus proper short, slightly

reclinate ventromedially, lamella rather weakly chitinized, relatively large and wide. Aedeagus comparatively short, curving circularly backwards.

Body length: abdomen of holotype curving strongly downwards, not precisely measurable, about 1.24 mm, paratype ♂: 1.24 mm.

Holotype ♂: Chentej aimak: 7 km NO von Somon Mörön, 1200 m, 28. VII.—21. VIII. 1965 (Nr. 323), Dr. Z. Kaszab.
Paratype ♂: data as for holotype.

M. parva sp. n. differs from the other Mongolian *Meoneura* species by its pruinose thorax and one pair of dorsocentrals, by the absence of spines on the costa of the wing, and the completely different genitalia (lamella present, surstylus and lamella with long and rigid bristles, etc.).

9. Meoneura pseudoseducta sp. n.

Extremely similar to *M. setipyga* sp. n., but the body measurements are larger on the average. Reliable distinguishing characters are present in the male genitalia only (cf. key).

Gena at its narrowest section 10/29—9/26 as wide as eye length. Wing length: wrinkled wing of holotype not well measurable, about 1.86 mm, paratypes: 2.03—2.20 mm, wing width of paratypes: 0.80—0.85 mm. Sternite 5 of males with a strong pair of bristles, yet weaker than in *paraseducta* sp. n. Male genital vault large, very wide, of characteristic shape: at the level of origin of surstyli with a cranially directed, concave, long continuation, constituting, as it were, a "fake ceiling" for the genital vault which thus appears ventrally open. Genital vault dorsomedially relatively long, with sparse, medium long and not thick bristles; its decurving part with thin, colourless, and rigid setae (essentially shorter than in *setipyga* sp. n.), directed into genital cave and hardly discernible from outside (Figs. 15, 16). Base of surstylus wide but long, its caudal margin with long setae, its apical part medially with moderately long and spiniform bristles (these, however, much weaker than in *inversa* sp. n.). Lamella wide and large, its entire surface with colourless bristles: along its margin with flabelliform, strongly curved, very long and very thick hairs, farther inside with shorter and considerably thinner hairs. Aedeagus curving in a circle caudally.

Body length: holotype ♂: 2.06 mm, paratypes: 2.26 mm.

Holotype ♂: Bajan-Ölgij aimak: im Tal des Flusses Chavcalyn gol, 25 km O von Somon Cagaannuur, 1850 m, 3. VII. 1968 (Nr. 1056), Dr. Z. Kaszab.
Paratypes: 1 ♂, 4 ♀: data as for holotype.

I found 7 further female specimens in the material, but I was unable to decide whether they represent *setipyga* sp. n. or *pseudoseducta* sp. n.; I have

thus omitted them from the type-series. Their data are as follows: Bajan-Ölgij aimak: 7 ♀: im Tal des Flusses Chavcalyn gol, 25 km O von Somon Cagaan-nuur, 1850 m, 3. VII. 1968 (Nr. 1056).

10. **Meoneura pseudotriangularis** sp. n.

A moderately pruinose species with black thorax and legs.

Frontal triangle shiny, terminating in anterior 7/17 of frons. Frons, facial plate and genae black, only anterior margin of frons with some dark reddish tinge. Gena not wide, its narrowest section less than 1/4 of eye length. Though dorsal side of holotype rather damaged, surely 3 pairs of dorsocentrals present. Also tarsal joints wholly black; fore femur posteroventrally with 2 strong bristles, joined by a shorter one subapically. Wing brownish, veins darker brown, costa without spiniform setae. Wing dimensions of holotype: 1.06 × 0.47 mm. Stalk of halteres brown, knob yellow. Basic structure of male genitalia similar to that of *triangularis* COLL.: no lamellae present, base of surstylus very wide (Fig. 17), not triangular but spade-shaped, comparatively larger than in *triangularis* COLL., its anterior edge with a row of long, thin, setiform hairs (Fig. 18). Genital vault similar to that of *triangularis* COLL., with some short and ventro-perianally one long and comparatively thick hair. Aedeagus short and thick, basally very stout, apically attenuating.

Body length: holotype ♂: 1.20 mm.

Holotype ♂: Central aimak: Ulan-Baator, Nucht im Bogdo ul, 12 km SO vom Zentrum, 1650 m, 3. VI. 1967 (Nr. 762), DR. Z. KASZAB.

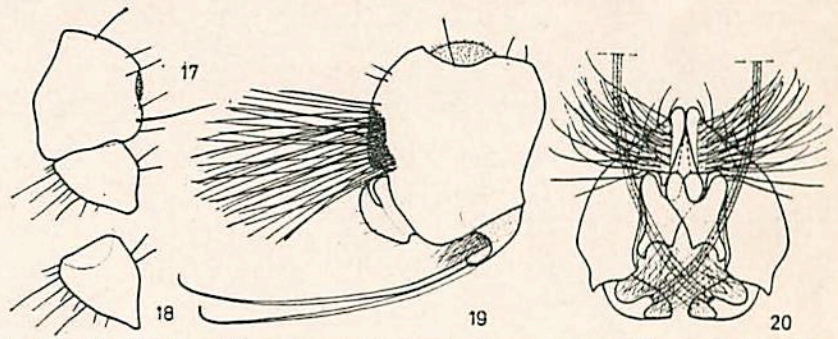
M. pseudotriangularis sp. n. can be distinguished from *triangularis* COLLIN by the shape of the male surstylus and the shorter frontal triangle.

11. **Meoneura quadrisetosa** sp. n.

A stout species, with strongly pruinose thorax, short metatarsus and spinose costa of the wings.

Anterior 1/3—2/5 of frons tinged with orange to dark reddish brown, extending also to lunule, cheeks, antennal sockets, facial plate, and to craniodorsal part of genae. Frontal triangle shiny, extending to anterior 5/7—5/6 of frons. Postverticals divergent. Gena wide, even at its narrowest section 1/3 of eye length. Thorax and clypeus, as well as meso- and sternopleurae — except their anterior part — strongly pruinose. Thorax dorsally with comparatively very long and thick microchaetae, but with only one pair of robust dorsocentrals. No pteropleurals. Legs short, stout, mostly black, but apices of tibia and ventral side of tarsi often brownish to reddish yellow (the light colour extends in some specimens also to the apices of femora, genu, and more

or less to the apices of tibia, too, but I ascribe this to the bleaching effect of the ethylene-glycol alcohol). Metatarsi very short. Posteroventral side of fore femur with at least 3 very strong, and occasionally also with 2 more weaker, bristles. Wing very pale brown, veins lighter. Costa thick, section mg_2 with a row of spiniform setae (similarly as in *mongolica* sp. n.). Wing length: holotype ♂: about 1.13 mm, paratype ♂♂: 1.02—1.20 mm, width: holotype ♂: 0.50 mm, paratype ♂♂: 0.44—0.50 mm. Halteres brown, only apical part of knob yellow or light brown. Abdomen shiny black, except its basal part.



Figs. 17—20. 17—18 = *Meoneura pseudotriangularis* sp. n., male: 17 = genital vault and surstylus laterally, 18 = surstylus at its greatest expansion; 19—20 = *Meoneura setipyga* sp. n., male: 19 = genital vault and genital parts in profile, 20 = genital vault and genitalia inferiorly

Male genital vault small, with 2 pairs of very thick and long bristles, and also with some medium long and short birstles (Fig. 17). Surstylus curving medially, relatively simple, with a wide base, its lateral sides parallel proximally, but with an abrupt incision on its anterior margin medially, some specimens also with a slight excision. Caudal margin of surstylus arcuately incurving apically, apex obtuse, located not in middle of surstylus, but craniad from centre. Lamella absent. Aedeagus long and thin, spirally reclinate. Body length: holotype ♂: 1.38 mm, paratype ♂♂: 1.07—1.42 mm.

Holotype ♂: Central aimak: 12 km S von Somon Bajanbaraat, 1380 m, 8. VI. 1967 (Nr. 774), Dr. Z. KASZAB.

Paratypes: 28 ♂: data as for holotype. — Central aimak: 1 ♂: 26 km O von Somon Lun, 1180 m, 4. VII. 1964 (Nr. 262). — Mittelgobi aimak: 2 ♂: 20 km S von Somon Delgercogt, 1480 m, 9. VI. 1967 (Nr. 779); 5 ♂: Choot bulag, zwischen Somon Chuld und Somon Delgerchangaj, 38 km ONO von Delgerchangaj, 1480 m, 10. VI. 1967 (Nr. 782). — Bulgan aimak: 8 ♂: 11 km W von Somon Bajannuur am Südrand des Sees Bajan nuur, 1000 m, 14. VI.—24. VII. 1968 (Nr. 958). — 45 ex.

M. quadrisetosa sp. n. is on the average slightly bigger than *mongolica* sp. n., also its frontal coloration is lighter, but it can be safely identified only

by the 4 robust bristles of the male genital vault and by the different shape of the surstylus (cf. key). I was unable to distinguish the females of the two species.

The majority of the specimens were recovered from soil trap materials.

12. Meoneura setipyga sp. n.

A slightly pruinose, comparatively large species with black body and legs.

Anterior 2/5—1/2 of frons yellow or light orange, this colour extending also to lunule and cheeks. Frontal triangle with an obtuse apex, extending only to 1/2—5/11 of frons. Peristomal below vibrissa is conspicuously shorter than vibrissa, and originating not strikingly near it. Narrowest section of gena 9/25—9/27 of eye length. Thorax slightly elongated, with 3 pairs of strong dorsocentrals. Legs wholly black, thin, metatarsi especially long. Fore femur mostly with 3, but frequently with some more long and thick bristles posteroventrally. Wing very pale brownish, veins ochreous yellow to light brown, costa without setae, discal cell relatively long. Wing length: holotype ♂: 1.59 mm, paratype ♂♂: 1.19—1.83 mm, paratype ♀♀: 1.36—1.80 mm, wing width: holotype ♂: 0.67 mm, paratype ♂♂: 0.55—0.74 mm, paratype ♀♀: 0.58—0.75 mm. Knob of halteres white or yellowish white, stalk brown. Male genital vault spherical, dorsomedially short (Fig. 19), with moderately long yet rather thick bristles; genital vault slightly elongated ventrally, emitting many rigid, colourless, thick and long hairs. Surstylus short, its base very wide, with long, digitiform, reclinate appendix (the whole rather resembling a shoe), bearing only some very short setiform bristles. Lamella rather large, wide, emitting ventrally a cranio-medially arcuate wide appendix with a truncate tip (Figs 19, 20). Widened portion of lamella emitting densely spaced thin, rigid, colourless hairs into genital cave, while its appendix bears two pairs each of extremely thick, very long, distalo-ventrally curving setae (Fig. 20). Aedeagus medium long, medially swollen (guttiform), apically as wide as basally, apex proper ventrally arcuate.

Body length: holotype ♂: 2.03 mm, paratype ♂♂: 1.25—2.00 mm, paratype ♀♀: 1.35—2.05 mm.

Holotype ♂: Central aimak: Žargalant, lótrágyáról (= on horse droppings), 16. VII. 1971, leg. P. Somogyi.

Paratypes: 19 ♂, 7 ♀: data as for holotype: 3 ♂, 1 ♀: ibid., jaktrágyáról (= on yak droppings), 15. VII. 1971, leg. P. Somogyi. — Central aimak: 7 ♂: Altan Bulag, lótrágyáról (= on horse droppings), 13. VII. 1971, leg. P. Somogyi; 4 ♀: SO von Somon Bajancogt, 1600 m, 11. VI. 1966 (Nr. 519), Dr. Z. Kaszab; 2 ♀: 11 km S vom Pass Zosijn davaa (cca 90 km S von Ulan-Baator), 1650 m, 7. VI. 1967 (Nrs. 768, 771), Dr. Z. Kaszab; 2 ♀: 12 km S von Somon Bajanbaraat, 1380 m, 8. VI. 1967 (Nr. 774), Dr. Z. Kaszab. — Archangaj aimak: 1 ♂: Ichtamir, nagyemlősök trágyájáról (= on droppings of large mammals), 27. VII. 1971, leg. P. Somogyi. — Bulgan aimak: 6 ♂, 8 ♀: Daschinčilen, jak- és lótrágyáról (= on yak and horse droppings), 2. VIII. 1971, leg. P. Somogyi; 1 ♀:

5 km W von Somon Daschinčilen, 1140 m, 2. VII. 1964 (Nr. 252), Dr. Z. Kaszab; 2 ♂, 2 ♀: 30 km NNW von Somon Daschinčilen, 1200 m, 15. VI. 1968 (Nr. 959), Dr. Z. Kaszab. — Bajan-Ölgij aimak: 6 ♂, 3 ♀: im Tal des Flusses Chavcalyn gol, 25 km O von Somon Cagaannuur, 1850 m, 3. VII. 1968 (Nr. 1056), Dr. Z. Kaszab. — 75 ex.

M. setipyga sp. n. belongs in the *paraseducta* species-group (cf. key), its nearest ally being *M. pseudoseducta* sp. n., whose females are difficult distinguished from those of *setipyga* sp. n. The generally smaller body size is also an unsafe separating character, but the male genitalia display a very peculiar configuration (Figs. 19, 20). A unique feature of the species is the many rigid, long bristles arising on the genital vault.

According to available data, apparently it is a coprophagous species.

13. Meoneura triangularis Collin, 1930. — So far known from Europe and North America (Sabrosky, 1959). According to Hennig (1937), the frontal triangle of this species extends to the anterior margin of the frons. Examining a somewhat larger material, Sabrosky found that it projects only slightly beyond the anterior 3/4 of the frons. The present material contains specimens in which the frontal triangle is still shorter. In some exemplars, the frons is nearly wholly black (with only a linear brownish margin), in others the anterior 2/5 of the frons is a dark reddish brown. Already Sabrosky has pointed out that in the absence of conspicuous body characters it is difficult to identify representatives of the species and that a correct identification can be based on the male genitalia only. I have thus made preparations of a male from each locality and examined the postabdomen. It is worthy of note that most specimens derive from soil traps.

Localities. Chentej aimak: 3 ♂, 2 ♀: 7 km NO von Somon Mörön, 1200 m, 28. VII.—21. VIII. 1965 (Nr. 323). — Central aimak: 1 ♂: Ulan-Baator, Nucht im Bogdo ul, 12 km SO vom Zentrum, 1600 m, 22. VII. 1965 (Nr. 299); 1 ♀: Ulan-Baator, Zaisan im Bogdo ul, 5 km S vom Zentrum, 6. VI. 1966 (Nr. 499); 1 ♂, 3 ♀: 11 km S vom Pass Zosijn davaa (cca 90 km S von Ulan-Baator), 1650 m, 7. VI. 1967 (Nr. 768); 1 ♂, 1 ♀: 12 km S von Somon Bajanbaraat, 1380 m, 8. VI. 1967 (Nr. 774); 1 ♂: Tosgoni ovoo, 6—10 km N von Ulan-Baator, 1700 m, 7.—8. VI. 1968 (Nr. 938). — 14 ex.

Meoneura spp. (Unidentifiable females). — Specimens with pruinose dorsal parts, short metatarsi, spinose costa and only one pair of dorsocentrals (the majority represents *M. mongolica* sp. n., some others *M. quadrisetosa* sp. n.): 13 ♀ (Nr. 779); 2 ♀ (Nr. 171); 56 ♀ (Nr. 792); 16 ♀ (Nr. 958); 190 ♀ (Nr. 774); 66 ♀ (Nr. 782). — 343 ex.

The following females could not be identified as to species owing partly to their partially damaged state partly to the lack of reliable specific characteristics: 5 ♀ (Nr. 323); 2 ♀ (Nr. 331); 1 ♀ (Nr. 439); 2 ♀ (Nr. 514); 2 ♀ (Nr. 646); 14 ♀ (Nr. 774); 4 ♀ (Nr. 782); 1 ♀ (Nr. 792); 1 ♀ (Nr. 799); 1 ♀ (Nr. 808); 1 ♀ (Nr. 938); 2 ♀ (Nr. 942); 1 ♀ (Nr. 1056); 1 ♀ (Nr. 1072); 1 ♀: Ulan-Baator, lótrágyáról (= on horse droppings), 11. VII. 1971, leg. P. Somogyi. — 39 ex.

Identification key to Mongolian Meoneura species

1 (8) Only 1 pair of dorsocentrals. Microchaetae of thorax relatively long and thick, metatarsi short. Costa eventually with spiniform setae beyond conjointment with r_1.

2 (3) Dorsal side of thorax shiny black, acrostichal microchaetae sparse, in 4 disarranged rows. Costa with robust but not spiniform bristles. Male genital vault with 2 very long and thick bristles, without lamella, surstylus short and very wide (Fig. 8). A small species: 0.8—1.08 mm **M. kaszabi** sp. n.

3 (2) Dorsal side of thorax strongly dusted. Thoracic microchaetae more densely spaced. Male genital vault with either 4 very long and thick bristles or with more but weaker setae. Genital vault shaped otherwise.

4 (5) Costa without spiniform setae. Male genitalia with lamella, this and surstylus with relatively long, colourless, arcuate hairs (Figs. 12—14). Genital vault with merely medium long hairs **M. parva** sp. n.

5 (4) Costa with spiniform setae. Male genitalia without lamella, surstyli longer, always without long, thick, arcuate bristles. Genital vault occasionally with very thick and long bristles.

6 (7) Male genital vault with many (usually 7 pairs of) long but not conspicuously thick bristles. Surstylus unevenly bifurcate (Fig. 9). At most anterior margin of frons yellowish brown, this colour never extending onto genae. Generally smaller than next species: 0.88—1.41 mm **M. mongolica** sp. n.

7 (6) Male genital vault with 4 (2 pairs of) very long and thick setae besides the shorter hairs. Surstylus not furcate, relatively simple (Fig. 7). Anterior 1/3—2/5 of frons orange to dark brownish red, occasionally extending also to genae. Generally larger than the foregoing species, 1.07—1.42 mm, but resembling it to such a degree that the females of the two species cannot be distinguished **M. quadrisetosa** sp. n.

8 (1) With 3 pairs of dorsocentrals. Microchaetae of thorax not conspicuously long and thick, metatarsi occasionally very long. Costa without spiniform setae beyond conjointment with r_1.

9 (10) Frontal triangle dusted and short, only half as long as frons. Male surstylus very long, weakly sclerotized. Anterior 2 pairs of dorsocentrals short **M. forcipata** Sabrosky, 1959

10 (9) Frontal triangle shiny and usually much longer than half length of frons (if only as long as that then apically rounded). Male surstylus sometimes long, but then strongly sclerotized.

11 (14) Male genitalia without lamella. Hardly pruinose, shiny species.

12 (13) Frontal triangle long, extending to 3/4 of frons. Male surstylus simple, triangular **M. triangularis** Collin, 1930

13 (12) Frontal triangle shorter, terminating in anterior 7/17 of frons. Base of male surstylus wider, not triangular, resembling a spade (Figs. 17, 18), its anterior margin with setiform bristles arranged in a row **M. pseudotriangularis** sp. n.

14 (11) Male genitalia also with lamella.

15 (18) Though metatarsi long, not conspicuously elongated. Neither lamellae nor surstyli of male genitalia long, latter ones acutely triangular, occasionally with long or medium long hairs, but never with thick, long, colourless setae. Genital vault also without long, colourless setae. Apex of frontal triangle never rounded.

16 (17) Frontal triangle longer, extending to anterior 16/19—5/6 of frons. Body more shiny, frons usually pure black. Base of surstylus of equal width for a section, then gradually attenuating and terminating in a definite apex; surstylus with many, moderately strong bristles (Fig. 4). Lamella with longer and thicker bristles than in the next species (Fig. 3) **M. asiatica** sp. n.

17 (16) Frontal triangle shorter. Body finely dusted, frons anteriorly often light (yellow to dark orange). Surstylus evenly attenuating from base, apex obtusely rounded. Lamella with shorter and thinner bristles **M. flavifacies** Collin, 1930

18 (15) Metatarsi conspicuously elongated. Surstyli of male genitalia either long or peculiarly shaped, lamella invariably of considerable size; surstyli and/or lamellae with long, thick, colourless bristles, occasionally also genital vault with such bristles. Apex of frontal triangle eventually rounded (*paraseducta* species-group).

19 (22) Though frontal triangle terminating in an obtuse apex, not widely rounded and extending to anterior third of frons. Male genital vault without long, rigid, colourless bristles.

20 (21) Male sternite 5 with one pair of very thick and long bristles (Fig. 10). Immediately below vibrissa, a peristomal bristle present of nearly equal length with vibrissa. Surstylus only with setiform hairs (Fig. 11) **M. paraseducta** sp. n.

21 (20) Male sternite 5 only with a normally long and thick pair of bristles. Peristomal below vibrissa shorter and arising further from vibrissa. Surstylus with numerous robust spines, some of which directed into genital cavity and originating on inner surface of surstylus (Figs. 5, 6) **M. inversa** sp. n.

22 (19) Frontal triangle widely rounded and extending only to middle of frons. Male genital vault with long, rigid, colourless bristles.

23 (24) Male genital vault very large, with a cranially directed, long, concave, wide continuation (Figs. 15, 16), this declinate portion bearing long, colourless bristles. Surstylus with a wide base, long, its caudal margin with long bristles, its apical portion with spiniform setae. Lamella wide and large, its entire surface with hairs, those along its margin thick. A generally larger species: 2.06—2.26 mm **M. pseudoseducta** sp. n.

24 (23) Male genital vault not conspicuously large, elongated only ventrally, without a cranially arcuate portion, its ventral elongation with conspicuously long, rigid, colourless bristles (Figs. 19, 20). Surstylus short, its base very wide, with a posteriorly directed digitiform appendix bearing merely very short setiform hairs. Lamella with a wide, apically truncate appendix, bearing 2 pairs of very thick and long, colourless hairs; all other bristles of lamella considerably shorter and thinner (Fig. 20). Generally smaller (1.25—2.05 mm) than the foregoing species, but the females of the two species cannot be safely distinguished **M. setipyga** sp. n.

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