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Changes in nomenclature and synonymies of some genera and species of Ephydridae (Diptera)

By

TADEUSZ ZATWARNICKI

With 53 figs. in the text

Abstract

The four generic names are recognized as new junior synonyms (*Psiloposoma* FREY = *Scoliocephalus* BECKER; *Neohydrellia* MALLOCH = *Hyadina* HALIDAY; *Pseudopelina* MIYAGI = *Trimerogastra* HENDEL; *Centromeromyia* FREY = *Scatophila* BECKER). Fifteen new synonyms in 5 genera have been suggested and 17 new combinations in 14 genera of Ephydridae are provided. *Scatella lutosa* var. *rufipes* STROBL and two subspecies of *Halmopota* are given species status. *Eleleides chloris* CRESSON, *Nostima flavitarsis* CANZ. and MENEGH., and *Discocerina mera* are recorded for the first time from Oriental and Neotropical Region respectively. *Notiphila opacula* ZETTERSTEDT, 1860 is removed from Ephydridae to *Pelomyiella* in Tethinidae. Six lectotypes in *Allotrichoma*, *Diclasiopa*, *Scoliocephalus*, and *Discomyza* are designated.

The family Ephydridae currently comprises about 1640 species in 116 genera (some of them are treated as subgenera by other authors), 16 tribes and 4 subfamilies. With the catalogues of Diptera of the Nearctic (WIRTH, 1965), Neotropical (WIRTH, 1968), Oriental (COGAN and WIRTH, 1977), Afrotropical (COGAN, 1980), Palaearctic (COGAN, 1984), and Australasian-Oceanian Region (MATHIS, 1989) the knowledge of the Ephydridae was summarized and many inaccuracies were corrected. Many problems, however, remain, especially in the Palaearctic Region for which numerous genera need revision. The paper provides some commented nomenclatural changes often supported by additional materials, and concerns similar problems as the article by MATHIS and ZATWARNICKI (1990) and both of them precede the World Catalogue of the family which is in preparation.

Material has been borrowed from various institutions. Their abbreviated names are given in the text in parentheses; an asterisk indicates collections from which type specimens were borrowed.

ANSP – *Academy of Natural Sciences of Philadelphia, USA.
BMNH – *British Museum, Natural History, London, Great Britain.
BPBM – *B. P. Bishop Museum, Honolulu, Hawaii, USA.
CAS – California Academy of Sciences, San Francisco, USA.
DEI – *Deutsches Entomologisches Institut, Eberswalde, Germany.
HEC – *Hope Entomological Collection, Oxford, England.
HNHM – *Hungarian Natural History Museum in Budapest, Hungary.
HUS – *Hokkaido University, Sapporo, Hokkaido, Japan.
IZW – Institute of Zoology PAS, Warsaw, Poland.
MBP – collection of M. BARTÁK, Prague, Czechoslovakia.
MBT – collection of M. BAÉZ, Teneriffe, Canary Island, Spain.
MCSNV – Museo Civico di Storia Naturale, Venezia, Italy.
MCZ – *Museum of Comparative Zoology, Cambridge, USA.
MMB – *Moravian Museum, Brno, Czechoslovakia.
MNHNP – *Museum National d'Histoire Naturelle, Paris, France.
MRHNB – Musee Royal d'Histoire Naturelle Belgique, Bruxelles, Belgium.

NMW – *Naturhistorisches Museum in Wien, Austria.
SMN – *Staatliches Museum für Naturkunde, Stuttgart, Germany.
TZ – Author's collection, Wroclaw, Poland.
UMB – University Museum, Bergen, Norway.
USNM – National Museum of Natural History, Smithsonian Institution, Washington, USA.
ZIL – *Zoological Institute in Lund, Sweden.
ZMA – *Zoological Museum, Amsterdam, The Netherlands.
ZMB – *Zoologisches Museum der Humboldt Universität in Berlin, Germany.
ZMC – Zoological Museum, Copenhagen, Denmark.
ZMH – *Zoological Museum, University of Helsinki, Finland.

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The phylogenetic relationships within Ephydridae are largely unresolved, and some suprageneric names, therefore, may change when a well-documented classification is published in the future. In this paper, I will endeavor to be explicit about the classification by ordering each taxon by its currently recognized tribe. To CANZONERI and MENEGHINI's species combined with *Ditrichophora* at present I add the translation of the original descriptions. Characteristics of other species are not standardized. At rare species full redescriptions are presented, but at well known ones only short diagnoses or descriptions of the male genitalia are provided. At each species after "material examined" (if available) some comments to the new changes are given. The illustrations of the male genitalia were made using a microscope with ABBE-apparatus. A scale bar in all figures means 0.1 mm.

Tribe Gymnomyzini

Genus Trimerogastra HENDEL

Trimerogastra HENDEL, 1914: 110. Type species: *Trimerogastra cincta* HENDEL, 1914, orig. des.

Pseudopelina MIYAGI, 1977: 64. Type species: *Pseudopelina setosa* MIYAGI, 1977, orig. des., **syn. nov.**

1. Trimerogastra setosa MIYAGI, 1977, comb. nov.

Pseudopelina setosa MIYAGI, 1977: 65.

Type material. Paratype male is labelled: "Irimote 16-IV-1962", "RYUKYU IS. I. MIYAGI", "-type *Pseudopelina setosa* I. MIYAGI" (red with black margin) (HUS).

The lateroclinate direction of orbital seta was the reason why MIYAGI (1977) placed the genus *Pseudopelina* in the subfamily Parydrinae (= Hyadininae) close to the genus *Pelina*. This kind of seta characterizes also the Oriental genus *Trimerogastra*, which undoubtedly belongs to the subfamily Gymnomyzinae, and it is closely related to the genus *Athyroglossa*. All generic characters of *Pseudopelina*, especially the conically prominent face, projected clypeus, setose mesonotum and notopleuron, reduced anterior notopleural seta, and the male terminalia with elongate dististyli bearing apical setae are also synapomorphic for *Trimerogastra*. In my opinion the retaining of *Pseudopelina* as valid genus is unwarrant. *T. setosa* is closely related to *T. fumipennis* HENDEL described from Taiwan.

Distribution: Japan (Ryukyu Is. and Kyushyu).

Tribe Hecamedini

Genus Allotrichoma BECKER

Allotrichoma BECKER, 1896: 121. Type species: *Hecamede lateralis* LOEW, 1860, orig. des.

2. Allotrichoma augierasi SÉGUY

Allotrichoma Augierasi SÉGUY, 1933: 76...
Allotrichoma Augeriasi: SÉGUY, 1933: 76 (in description of illustration; lapsus).
Allotrichoma aegyptium CRESSON, 1946: 250, **syn. nov.**

Type material: Lectotype male of SÉGUY's species, herein designated, is labelled: "TYPE" (red), "*Allotrichoma Augierasi* TYPE E. SÉGUY det. 19 [empty space]", "MS. AD. Z. 991 á la lampe 992 21. 2. 28" and a female without labels (MNHNP), and holotype male of CRESSON's species is labelled: "Elephantine Aeg. REIMOSER", "♂", „*Elephantino. [soma] perspiciendum* det. CRESSON, 1927", "TYPE *Allotrichoma aegyptium* CRESS." (red), "ANSP" (yellow) (ANSP), genitalia of both types in plastic microvials.

SÉGUY (1933) described his species basing probably on a pair of specimens (male and female), as "No Z 991–992, bords du Niger, un peu en amont de Ségou, á la lampe, 21-II-1928". His illustration of the male genitalia agrees well with the structure I have examined and illustrated from the lectotype.

My examination of the types of *A. augierasi* and *A. aegyptium* convinced me that they are synonymous and there appears to be no reason to retain *A. aegyptium* as a valid species.

Male terminalia: cercus oblong (3.5 times as long as broad) with obtuse anterior end, which bears about a dozen long setae. Surstyli cylindrical with apical setae. Gonite apically bifid with two setae on its ventral part. Aedeagus elongate, botuliform in outline. Hypandrium trapezoidal (Figs. 1–5).

Distribution: Egypt, Mali, Sudan (Fig. 6).

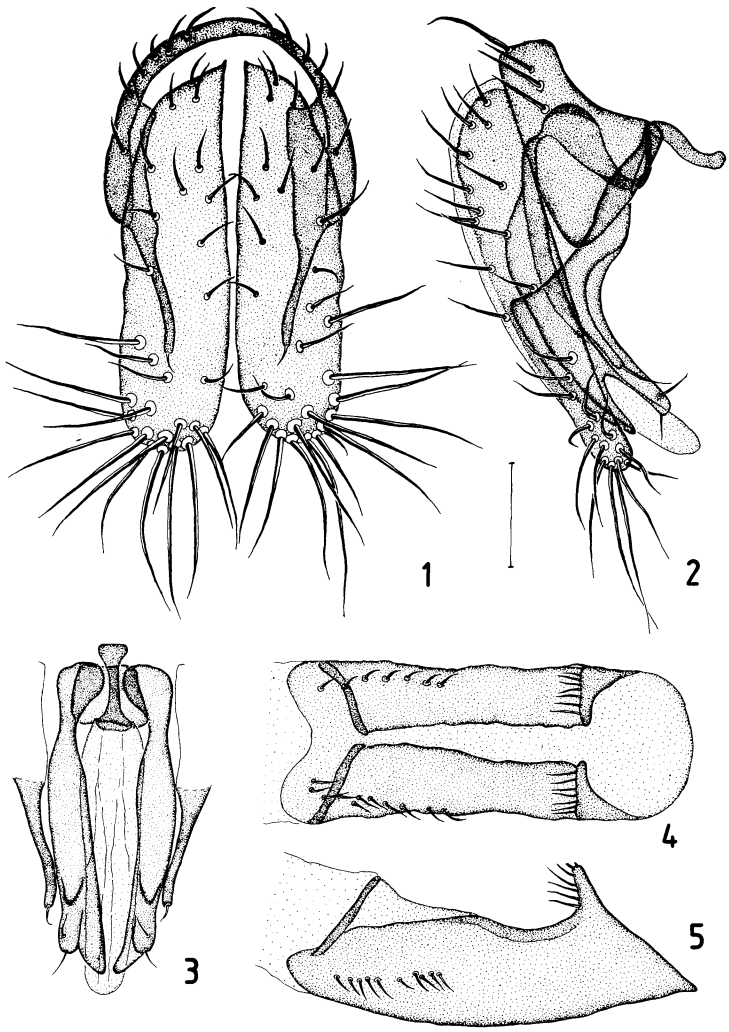


Fig. 1–5
Allotrichoma augierasi SÉGUY – 1. External male genitalia, dorsal aspect; 2. Male genitalia, lateral aspect; 3. Internal male genitalia, dorsal aspect; 4–5. Fifth sternite; 4. Ventral aspect; 5. Lateral aspect (holotype)

3. Allotrichoma bezzii BECKER

Allotrichoma Bezzii BECKER, 1896: 123.
Allotrichoma lena DAHL, 1973: 354, **syn. nov.**
Allotrichoma pedemontanum CANZONERI and MENEGHINI, 1979: 629, **syn. nov.**

Type material: Lectotype male of the senior synonym, herein designated, is labelled: "Edefors 1/7. 43265", "*Allotrichoma bezzii* BECK. ♂ det. PAPP L." (ZMB), and holotype male of *A. lena* glued to

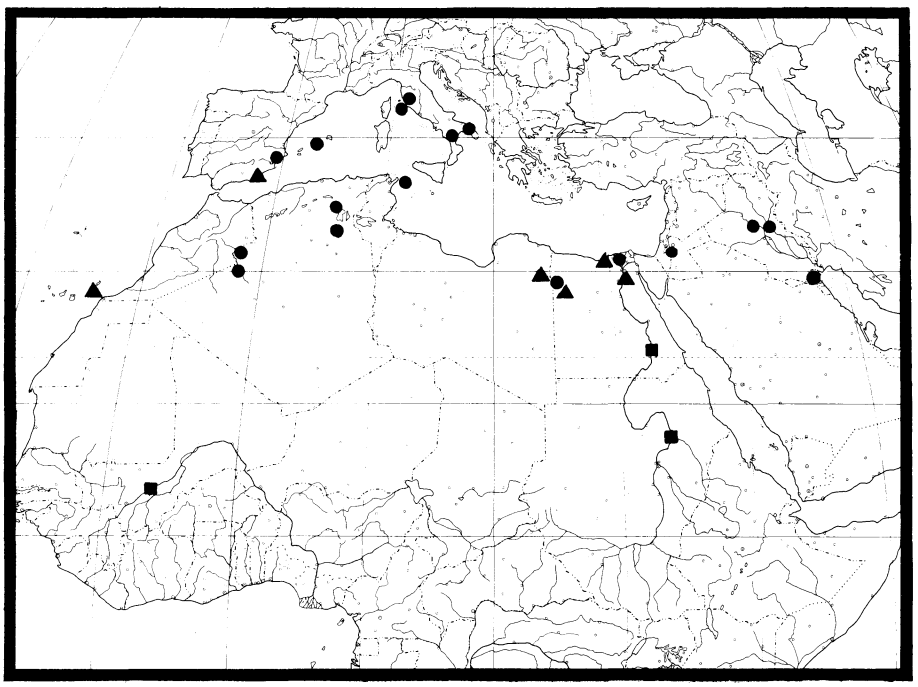


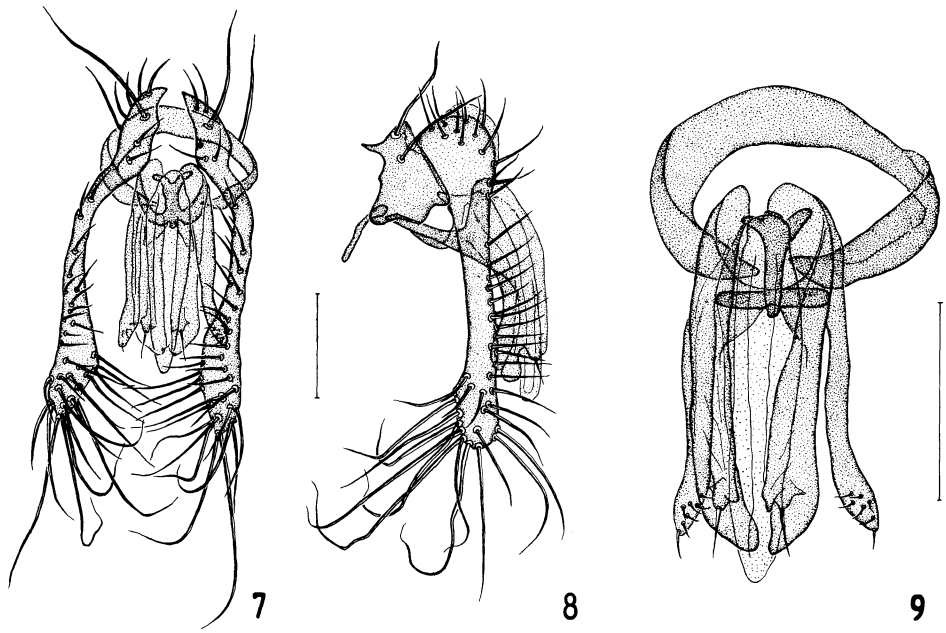
Fig. 6
Distribution map of *Allotrichoma augierasi* (squares), *Scoliocephalus pallidisetis* (triangles), and *Scatella rufipes* (circles)

the square paper (male genitalia in glass vial) is labelled: "Bala Murghab 28. 8. – 31. 8. 1964 470 m (64)", "N. Afghanistan Prov. Herat coll. O. JAKEŠ", "Holotypus *Allotrichoma lena* DAHL" (red), "Invent. č. [islo = number] 755/Ent. Mor. museum Brno" (with black suborder), and 6 paratype females bearing inventory numbers 756 – 761 (MMB).

Other material: Austria: Hammern, 7 VIII 1873, MIK, 9 ♂; Kremsmünster, 1 – 7 IV 1932, CZERNY, 4 ♂ (NMW). Bulgaria: Varna, 20 IX 1929, SZILADY, 1 ♂ (HNHM). Lithuania: Nida, 3 VII – 7 VIII 1940, O. DUDA, 2 ♀, 6 ♂. Germany: Sinsen Westf., 5 VIII 1918, O. DUDA, 1 ♂ (ZMB). Poland: Słupsk, 21 – 22 III 1931, 2 ♂, 16 IV 1930, 1 ♂, O. KARL (IZW). Spain: Elche, 10 V 1907, CZERNY, 1 ♂; S. Pablo, 19 IV 1907, CZERNY, 1 ♂ (NMW). Sweden: Sk. norr Krankesjön, sjöstrand, sand, 3 VIII 1974, H. ANDERSSON, 1 ♂ (ZIL).

BECKER (1986) described the species from specimens in the BEZZI collection (Italy, presently preserved in Museum in Milano). He also included an imprecise drawing of the male genitalia. According to CANZONERI and MENEGHINI (1983) the specimen in Milano has been destroyed. During my visit in Berlin, however, I found a male of the species with the male terminalia in the same position that BECKER (1896) illustrated. Although not specifically listed, BECKER obviously studied and illustrated this species as part of his treatment of this species, and the specimen is, therefore, part of the type series and available for designation as a lectotype. The male genitalia of the lectotype are the same as *A. pedemontanum*, and *A. lena*, and they are, therefore, relegated to the status of a junior synonyms of *A. bezzii*.

Male terminalia: Cerci elongate, band-like, slightly arched, basally broad and apically rounded; along the dorsal margin a row of setae, apical part with several long sometimes twisted setae turned upward and inside; gonites branching apically, the ventral longer part lobe-like and rounded, dorsal part progressively tapered with apical spinula (Figs. 7 – 9).



Figs. 7–9. *Allotrichoma bezzii* BECKER – 7–8. Male genitalia; 7. Posterior aspect; 8. Lateral aspect; 9. Internal male genitalia, dorsal aspect (Poland: Slupsk)

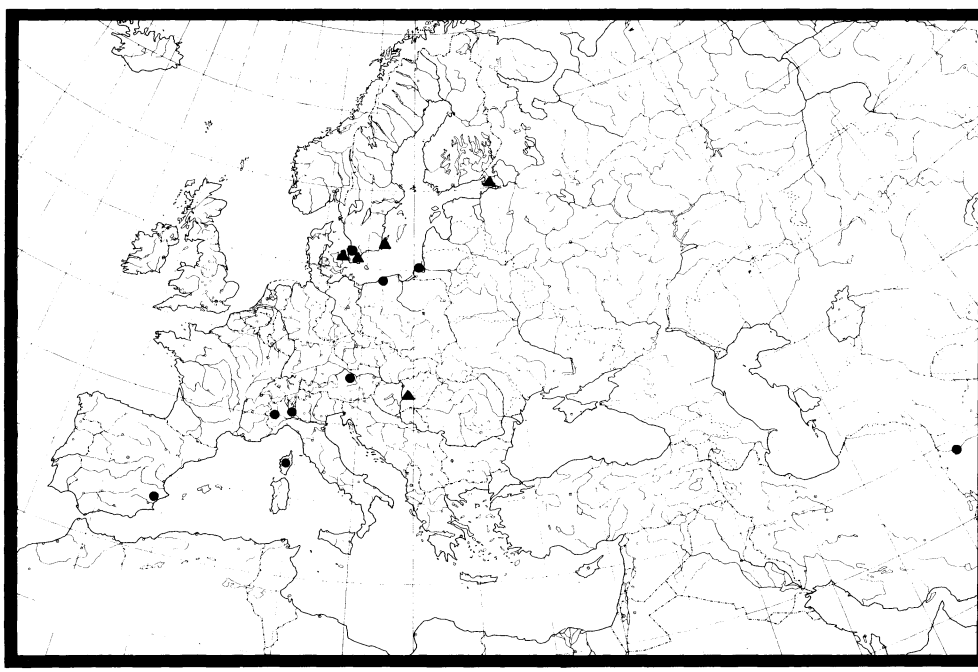


Fig. 10. Distribution map of *Allotrichoma bezzii* (circles), and *Hyadina nigricornis* (triangles)

Distribution: Afghanistan, Austria, Bulgaria, Germany, Italy, Corsica, Poland, Spain, Sweden, Lithuania. (Fig. 10). This species probably occurs widely in Europe, but it was often misdetermined as *Allotrichoma lateralis* (LOEW).

4. Allotrichoma quadripectinatum (BECKER), comb. nov.

Clasiopa quadripectinata BECKER, 1903a: 161.
Discocerina quadripectinata: BECKER, 1926: 44.
Allotrichoma bellicosum GIORDANI SOIKA, 1956: 103, **syn. nov.**

Type material: Lectotype male of BECKER's species, by present designation, is labelled: "Alexandrien 44159 XI", "Typus", and 4 paralectotypes are labelled: 2 females: "Assuan 44549 I", "Typus", "Assuan 44549 I", "*4 pectinata* BECK.", "Typus"; 1 male, 1 female: "Assuan 44549 I", "Typus" (ZMB).

From my study of external characters and of the male genitalia, this species is better placed in the genus *Allotrichoma*, not *Discocerina*. Indeed, these features are the same as described for *A. bellicosum*, and I propose its synonymy with *A. quadripectinatum*.

Parafrons dull black; mesofrons subshiny bronzish; antenna black, pedicel dorsoventrally whitish microtomentose; arista relatively short, about 1.5 the length of first flagellomere, with 4 aristal rays; face slightly prominent medially, slightly concave above antennae, greyish microtomentose, especially on dorsal part; 2 strong facial setae; gena greyish with one genal seta; palpus black.

Mesonotum greyish microtomentose, with longitudinal series of short spinulae; one distinct prescutellar seta, and a little longer dorsocentral seta; postpronotum, ventral and posterior part of notopleura whitish; dorsal 1/3 part of anepisternum grey, remaining surface of pleurae whitish; two posterior anepisternal setae relatively long. Legs dark, only trochanteres, knees, and basal tarsomeres yellowish. Stem of halteres brown, knob yellowish-white.

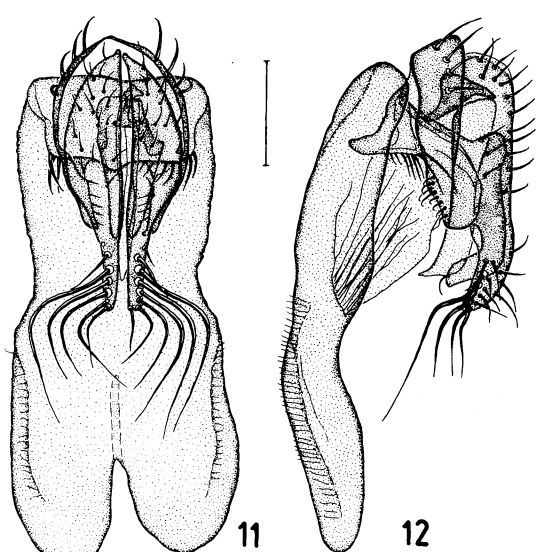


Fig. 11–12
Allotrichoma quadripectinatum (BECKER), male genitalia, and fifth sternite – 11. Dorsal aspect; 12. Lateral aspect (paralectotype)

Abdomen with tergites subshiny, grey dorsally, more whitish ventrally. Cerci semicircular, elongate anteriorly with 7–8 long lateral setae, 5 medial ones directed forward (Figs. 11–12); anterior part of gonite bent arcuately downwards; aedeagus in dorsal view narrow, cigar-like, in lateral view dorsal margin of apex sharply declined forming an anteroventral point.

Distribution: Algeria, Egypt.

5. Allotrichoma tricolor (CZERNY), comb. nov.

Discocerina tricolor CZERNY, 1909: 268.

Type material: Holotype female is labelled: "Genil CZERNY", and "1/5. [19]07" on the upper side, "*Discocerina tricolor* CZ. L. CZERNY det." (NMW).

The holotype female has the upturned second notopleural seta, facial projection under antennae, and this led to the conclusion that the species is a member of *Allotrichoma*. The holotype is in very poor condition – setae on frons and mesonotum destroyed, without antennae, and whole body covered by spawn of fungi.

Distribution: Only holotype female from Spain is known.

Tribe Atissini

Genus Cerobothrium FREY

Cerobothrium FREY, 1958b: 38. Types species: *Cerobothrium ptahi* FREY, 1958, orig. des.

6. Cerobothrium lituscolum (MIYAGI), comb. nov.

Pelignellus lituscola MIYAGI, 1977: 29.

Type material: Paratype male is labelled: "Tesio 8-Aug., 61", "Japonia Hokkaido I. MIYAGI", red and white rectangular paper square, "-type *P. lituscola* I. MIYAGI" (red with black margin) (HUS).

The type species of the genus *Pelignellus* was recently combined with *Atissa* (MATHIS and ZATWARNICKI, 1990), making the genus a synonym of *Atissa*. It is necessary to change the generic status of the second species described in this genus. The species described by MIYAGI (1977), however, is not congeneric with *Pelignellus subnudus*, but resembles, both external characters and those of the male terminalia, *Cerobothrium ptahi* FREY. This species, therefore, is transferred to that genus.

Distribution: Japan.

Tribe Discocerinini

Genus Diclasiopa HENDEL

Diclasiopa HENDEL, 1917: 42. Type species: *Hecamede xanthocera* LOEW, 1869 (= *Discocerina lacteipennis* LOEW, 1862), orig. des.

7. Diclasiopa lacteipennis (LOEW)

Discocerina lacteipennis LOEW, 1860: 145.
Diclasiopa lacteipennis: CRESSON, 1929: 167.
Hecamede xanthocera LOEW, 1862: 58.
Hecamede aurella STROBL, 1893a: 256.

Type material: Lectotype male of the senior synonym, herein designated, is labelled: "LOEW Coll.", "Type 11146", "*Diclasiopa lacteipennis* (LOEW) det. W. W. WIRTH '61", "Lectotype ♂ *Discocerina lacteipennis* LOEW des. T. ZATWARNICKI 1986", and 2 paralectotype females are labelled: "LOEW Coll.", "Type 2 11146", and "LOEW Coll.", "Type 3 11146", with my paralectotype labels (MCZ).

Other material: Poland: Chojnòw, 10 VI 1982, 1 ♂, 31 VIII 1983, 1 ♀, Podgòrzyn, 11 VIII 1983, 1 ♀; Wrocław-Leśnica, 19 V 1984, 7 ♀, 3 ♂, 4 VI 1984, 2 ♀, 1 ♂; Zimna Woda, 21 V 1983, 1 ♀, leg. T. ZATWARNICKI (TZ).

Study of the terminalia from the male paralectotype and European specimens determined as *D. lacteipennis* (LOEW) confirms the holarctic distribution of the species.

Distribution: Europe, North Africa and North America.

Genus Discocerina MACQUART

Discocerina MARQUART, 1835: 527. Type species: *Notiphila pusilla* MEIGEN, 1830 (= *Notiphila obscurella* FALLÉN, 1813), des. CRESSON, 1925.

8. Discocerina mera CRESSON

Discocerina mera CRESSON, 1939: 6.
Discocerina peculiaris MIYAGI, 1977: 15, **syn. nov.**

Type material: Holotype female of the senior synonym is labelled: "Formosa SAUTER", "Takao 1907. IV. 13", "9123", "TYPE No. 6573 *Discocerina MERA* E. T. CRESSON, Jr." (red), "ANSP" (yellow) (ANSP), and paratype female with same locality labels, and with label "PARATYPE *Discocerina mera* E. T. CRESSON, Jr." (USNM), and paratype female (without left wing, and right fore leg) of the junior synonym is labelled: "Japonia Kyushu I. MIYAGI Is. Tushima 6. Aug. 1963", "Paratype *Discocerina peculiaris* I. MIYAGI" (pink), "G. NO. EW – 20 I. M.", and male terminalia on glass with labels: "♂ Genitalia on slide No. E. 559", "*Discocerina peculialis* [sic] MIYAGI IRAKOZAKI AJDRI 23 July 1963" (HUS).

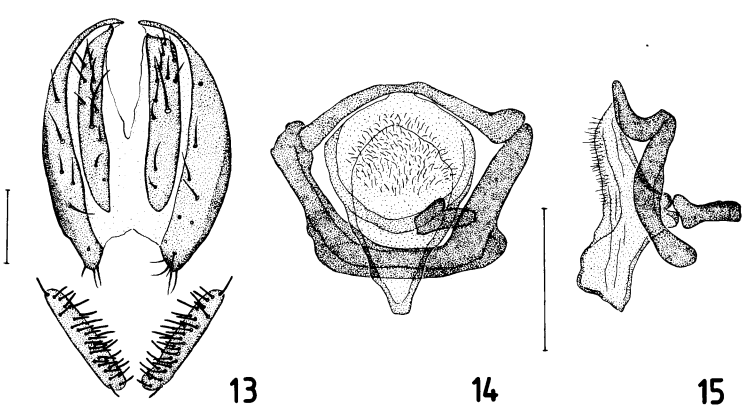
Other material: AUSTRALASIAN/OCEANIAN REGION: Australia: NSW: 6 II 1968, D. H. COLLESS, 1 ex.; Qld: Cairns, Ellis Beach (intertidal rocks), 28 IV 1957, W. W. WIRTH, 2 ex.; Townsville (in mangroves), 30 XI 1957, 1 ex.; Cairns, Hartleys Crk, 24 IV 1957, W. W. WIRTH, 1 ex. (USNM); 30 mls S. of Singleton Sidney, Putty Road, Camberland forest, 25 VIII 1981, ROSSI, 1 ♀ (MCSNV). Bismarck Is.: Duke of York, Manuan, 18 VII 1962, Noona Dan Exp. 61–62, 3 ex. (ZMC). Carolines: Ponape Is.: Kolonia, VIII 1956, M. R. WHEELER, 2 ex., 9 VIII 1946, H. K. TOWNES, 1 ex.; Truk Atoll: Fefan Is. (near fresh water marsh and mangrove swamp), 27 V 1946, 24 ex.; Kusaie: Pukusrik, 2 IV 1953, 1 ex.; Palmyra Is., II 1948, N. L. H. KRAUSS, 6 ex.; Line Is., VII 1962, M. R. WHEELER, 2 ex.; Palau Is.: Babelthuap Is.: Ngerehelong, 8 V 1957, 4 ex.; Meleiok (beach), 23 V 1957, 4 ex.; Ngaremlengui, 1–4 VI 1957, 9 ex.; Ngesebus Is., 29 V 1959, 6 ex.; N. end Peleliu (at light), 28 V 1957, 1 ex.; Koror Is., 16 IV–29 V 1957, 13 ex.; Ngurukdabel Is., Ngaremediu, 24 IV 1957, 3 ex.; SE Ulebsehel Is., 21 IV 1957, 1 ex., all coll. C. W. SABROSKY; Yap Group: Yap Is.: Caroline, VIII 1952, N. L. H. Krauss, 1 ex.; Kolonia, VII–VIII 1950, R. J. GOSS, 1 ex., 8 VII 1957, C. W. SABROSKY, 2 ex. Eniwetok Atoll: Japtan Is. (at light), 30 VIII 1956, L. D. TUTHILL, 2 ex. Fiji: Lami, 14 XII 1943, R. A. LEVER, 4 ex. Guam: P. A. Obarge, 20 II 1938, R. G. OAKLEY, 1 ex.; PtRitidian, VI 1945, J. L. GRESSIT, G. E. BOHART, 1 ex. Hawaii: Honolulu TH, 8 II 1948, C. R. JOYCE, 1 ex.; N. Kona,

Makalawena Tract, 13 II 1970, D. E. HARDY, 2 ex.; Hilo, near shore, 6 VII 1968, G. STEYSKAL, 10 ex. Kiribati: Gilbert Is.: Butaritari Atoll, Butaritari Is., XII 1957, N. KRAUSS, 1 ex.; Tarawa Atoll, Bairiki Is., XI–XII 1957, N. KRAUSS, 3 ex. (USNM). Marianas: Mariana Is., Pt. Oca (light trap), 29 VI–16 VII 1945, J. L. GRESSIT, G. E. BOHART, 4 ex.; Tinian Is., Tinian Harbor (sweeping grass near tidal pool), 20 III 1945, H. S. DYBAS, 1 ex. Marshall Is.: the airfield Kwajalein Is, Kwajalein At, 17 VIII 46, H. K. TOWNES, 3 ex.; Bigatyelang Is., Ailinglapalap, 25 VIII 1946, H. K. TOWNES, 1 ex.; Jaluit Atoll, Majurirek Is., 26 IV 1958; J. L. GRESSIT, 2 ex.; Majuro Atoll: Uliga Is., VIII–IX 1955, M. R. WHEELER, 9 ex.; Kinajon Is., 29 IV 1958, J. L. GRESSIT, 1 ex.; Tabor Is., 1 V 1958, J. L. GRESSIT, 1 ex. Papua New Guinea: Owi Dutch (in bark of log piling), 7 VIII 1944, no coll., 6 ex.; Port Moresby (mangroves), 25 X 1963, D. K. MCALPINE, 1 ex.; Central Province: Yule Island (rocky shore), 1 I 1983, 3 ♂, 3 ♀; Nat. Cap. Dist., nr Baruni (shore), 20 II 1985, 1 ♀; Oro Prov.: nr. Tufi (sea shore), 1 VII 1983, 5 ♂, 2 ♀, all coll. J. W. ISMAY. Salomon Is.: Guadalcana: Matanikau R, 9 XI 1944, J. LAFFOON, 1 ex. Society Is.: Bora Bora, IV 1961, J. N. BELKIN, 2 ex. Tahiti: Paea, IV 1961, J. N. BELKIN, 1 ex. (USNM). ORIENTAL REGION: Malaya: Singapore Is., Pasir Panjang Nature Res., 11 I 1973, A. E. STUBBS, 3 ♂ (BMNH). Taiwan: Anping, V 1912, H. SAUTER, 1 ♀ (NMW); Takao, 13 IV 1907, 6 ♀, 4 V 1908; 2 ♀, 24 II 1907, 1 ♀, 18 XI 1907, 1 ♀, W. SAUTER (HNHM). Thailand: Songkla (seaside), IV 1960 (light trap), 1 ex.; Pakchong Dst. Nakronrajasrima Pr, light, 8–10 VII 1959, Manop, 1 ex. (USNM). Vietnam: Hong-gai (light trap), 8 IX 1963, T. POCS, 1 ♀ (HNHM). NEOTROPICAL REGION: Antilles: St. Lucia, Castries, 20 VII 1980, S. MAHUNKA & L. MAHUNKA-PAPP, 5 ♀, 1 ♂ (HNHM). Belize: Stann Crk. Dist. Twin Cays (Aanderaa Flats), 17–21 III 1988, W. N. MATHIS, 1 ♀, 2 ♂ (USNM).

D. mera was described from Taiwan, and *D. peculiaris* from Japan. They are obviously identical as this study of the types demonstrated. The female receptacle of *D. mera* illustrated by TENORIO (1980) with characteristic bend like lateral lobes is essentially the same as figured by MIYAGI (1977).

This species is a rather atypical member of the genus *Discocerina*, but mostly related to the species of subgenus *Lamproclasiopa* not *Discocerina* s. str., having epandrium not fused anteriorly. The species is characterized by following features: frons, antennae, face, cheeks and clypeus dull black and greyish-brown microtomentose; face convex above epistoma with 4–7 strong facial setae and 5 weak parafacial setulae; legs black, only basal tarsomeres yellow; fore femur with 5–6 posteroventral spinulae.

Male terminalia as follows: Cerci and epandrium elongate band-like, rounded apically; epandrium with 3–4 distinct anterior setae, behind cerci separated, and divided into two halves; hypandrium archwise, U-shaped; gonite narrow, stick-like, fused with each other



Figs. 13–15
Discocerina (Lamproclasiopa) mera CRESSON – 13. External male genitalia, and fifth sternite, posterior aspect; 14–15. Internal male genitalia; 14. Dorsal aspect; 15. Lateral aspect (Singapore)

basally and with posterior margin of aedeagus; aedeagal apodeme spatular in shape, situated asymmetrically below aedeagus, no contacts with hypandrium; posterior margin of aedeagus broadly rounded, anterior part triangular, posterior part of aedeagus dorsally covered with short hairs (Figs. 13–15).

Distribution: Australasian/Oceanian Region: Australia (New South Wales, Queensland), Bismarck Arch., Carolines, Eniwetok Atoll, Fiji, Gilbert Is., Guam, Hawaii Is., Marianas Is., Marshall Is., Papua New Guinea, Ryukyu Is., Salomon Is., Society Is., Tahiti, Oriental Region: Malaya, Taiwan, Thailand, Vietnam; Neotropical: Antilles, Belize; Palaearctic: Japan.

Genus Ditrichophora CRESSON

Ditrichophora CRESSON, 1924: 159. Type species: *Ditrichophora exigua* CRESSON, 1924, orig. des.

Subgenus Ditrichophora s. str.

7. Ditrichophora (Ditrichophora) graeca (CANZONERI and MENEGHINI), comb. nov.

Discocerina (Ditrichophora) graeca CANZONERI and MENEGHINI, 1985: 28.

The species recently described from Malia on Creta (Greece), is based on three specimens, of which two (holotype and allotype) are preserved in ZIL. It was suggested that the species is related to *D. calceata* (MEIG.).

Length of body 1.9 mm. Face brown-black with sparse, greyish microtomentum, laterally substraight, distinctly prominent on the dorsal facial setae level, between the transverse protuberance distinctly prominent. Paraface narrow, greyish-brown; eye to cheek ratio about 0.25. Two strong facial setae and a row of secondary setulae. Frons brown with sparse, greyish microtomentum. First orbital seta not present. Antennae whole brown-black; arista with five aristal rays.

Mesonotum and scutellum brown-black; first shiny, the second faint opaque. Pleurae shiny, brown-black; notopleura with two usual setae, the rest without setulae. Femora and tibiae wholly brown-black; tarsi dark; fore tibiae with first (? basal) tarsomere, mid and hind with first two tarsomeres yellowish. Fore femora with 2–3 short black posteroventral spines. Hind tibiae without subapical spur. Wings unicoloured, with brown veins. Costa with setulae, among them 2–3 setae extremely strong and long. Costal vein ratio about 1.7. Abdomen brown-black, fairly shiny. Abdomen index 2:1. The species belongs to the "calceata" group, but may be easily distinguished from the related species (*D. calceata* MEIG., *D. griseifacies* CANZ., *D. canzonerii* RAMPINI) basing on the colour of legs and the structure of posteroventral spines on fore femur.

Distribution: Greece (Cretal).

9. Ditrichophora (Ditrichophora) moraviae (BECKER), comb. nov.

Discocerina moraviae BECKER, 1926: 42.
Hecamedoides moraviae: PAPP, 1979: 101.
Discocerina Csiki HENDEL, 1933: 50.
Hecamedoides csiki: PAPP, 1979: 101.

Type material: Lectotype male is labelled: "Moravia KERTESZ", and "1900 VI. 14" on the upper side, "46510.", "*Clasiopa moraviae* B. det. BECKER", "Lectotypus" (red), "Zool. Mus. Berlin" (yellow), and paralectotype female with same locality labels, and "Paralectotypus" (red) (ZMB).

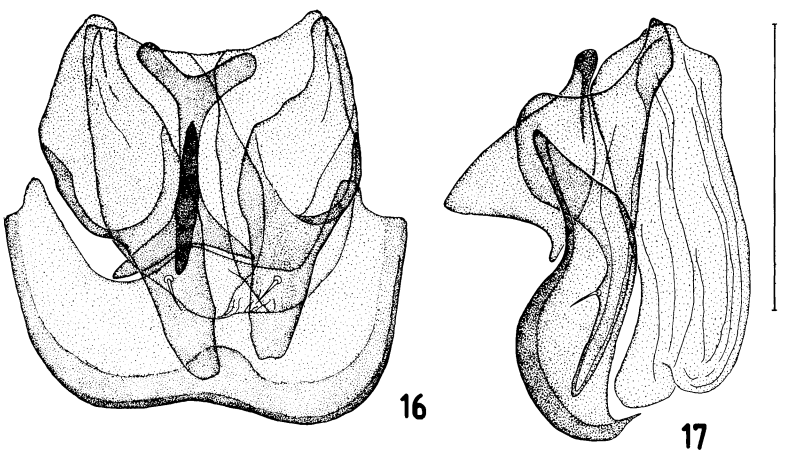
HENDEL described *Hecamedoides* as a genus related to *Discocerina* with posteroventral spur on hind tibiae and three orbital setae. The last feature, however, is not typical for all species of *Hecamedoides*. Some species (for example *H. canolimbatus* (DE MEIJERE) from Oriental Region) lack anterior orbital seta. The absence of a spine on the hind tibiae and the arrangement of facial setae indicate that this species correctly belongs to *Ditrichophora* to which it is now transferred. The male terminalia in both *Ditrichophora* (subgenus *Ditrichophora*) and *Hecamedoides* are of the same type, without important features to separate the above taxa. I suppose that the external features which characterize *Hecamedoides* are good synapomorphies, and are strong enough to retain its generic status.

Antennae black; arista with 5 aristal rays; frons dull brownish grey; 3 orbital setae: 1 short seta just behind the base of antennae, remaining 2 long, the second anteroclinate subequal to ocellar seta, and the third proclinate, following the latter, but closer to eye margin; face dull dark-grey, convex below antennae with distinct facial carina; 2 facial setae at oral margin.

Mesonotum greyish microtomentose; all legs dark; anterior femur with posteroventral row of five spinulae; halteres white.

Abdomen shiny black. Internal male terminalia (Figs. 16–17) as follows: hypandrium depressed, U-shaped with short and broad posterolateral arms turned up dorsally; gonite with 1 ventral seta in 1/4 from apex, situated anteriorly below aedeagus; aedeagal apodeme branching on both tips, in lateral view irregularly subtriangular; aedeagus round in shape with concave posterior margin, apex of aedeagus with medial incision directed slightly downwards.

Distribution: Czechoslovakia, Romania.



Figs. 16–17
Ditrichophora (Ditrichophora) moraviae (BECKER), internal male genitalia – 16. Dorsal aspect; 17. Lateral aspect (paralectotype)

9. Ditrichophora (Ditrichophora) niveifrons (CRESSON), comb. nov.

Discocerina neiveifrons CRESSON, 1926: 251.

Pectinifer niveifrons: CRESSON, 1945: 65 (emendation).

Type material: Three paratype males are labelled: "Australia Biró 1900", and "X. 28" on the upper side, "N. S. Wales Parramatta", "PARA-TYPE *Discocerina niveipennis* E. T. CRESSON Jr" (blue) (HNHM, USNM).

Other material: Australia: Ovens River, 14 km E of Yarrawonga, V., 24 XII 1966, Z. LIEPA, 1 ♀; Uriarra X-ing, ACT, 30 I 1964, D. COLLESS, 2 ♂; N. S. Wales: Narrabeen Middle Creek, 4 X 1956, 1 ♀; Zieffith, 15 XI 1956, LEE and WIRTH, 1 ♂; Warriewood, 6 XI 1956, W. W. WIRTH, 1 ♂, 1 ♀; Glen Davis, 30 VIII 1956, D. K. MCALPINE, 4 ♂, 6 ♀ (USNM).

CRESSON (1945) included his *Discocerina niveifrons*, as having three facial setae, into the genus *Pectinifer* together with *P. aenea* CRESSON. After comparison of the holotype female of *Pectinifer aenea* described from Argentina preserved in ANSP, and other specimens preserved in USNM with the material of *D. niveifrons* I have found that two species are not congeneric, but the latter species a member of the genus *Ditrichophora.*

Antennae black; arista with 4 aristal rays; anterior half of frons silvery microtomentose; one proclinate orbital seta; face shiny black, convex below antennae; paraface and gena paler, light-bronzish; 3 facial setae, the dorsalmost seta on the level of facial carina.

Mesonotum shiny black; postpronotum and katepisternum whitish microtomentose; legs dark, only tarsi yellowish; anterior femur with posteroventral comb of spinulae; halteres lemon-yellow.

Internal male terminalia: Hypandrium U-shaped, anteriorly bent upwards; gonite broad, posteriorly splitted with two ventral setae; aedeagal apodeme advanced forward and lobe-like broadened, posterior part of apodeme depressed and surrounding posteroventral part of aedeagus; in dorsal view aedeagus narrow and elongate, in lateral view ventrally becomes narrower, with rounded apex (Figs. 18–19).

Distribution: Australia.

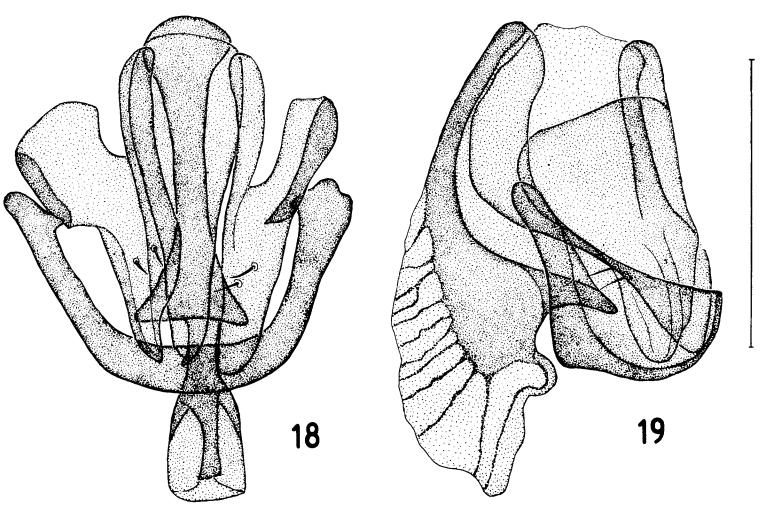


Fig. 18–19
Ditrichophora (Ditrichophora) niveifrons (CRESSON), internal male genitalia – 18. Dorsal aspect; 19. Lateral aspect (paratype)

10. Ditrichophora (Ditrichophora) ratti (CANZONERI), comb. nov.

Discocerina (Ditrichophora) ratti CANZONERI, 1980: 12.

This species was described from the Seychelles (Mahé) and may easily be distinguished from all other *Ditrichophora* basing on the following characters: antennae brown with second joint yellow-reddish; legs brown with first four tarsomeres of mid and hind tarsi yellow; front femora without spinulae.

Length of body 2.4–2.5 mm. Frons brownish-grey, dull slightly pollinose; pedicel and first flagellomere bronzish, first flagellomere greyish microtomentose, scope entirely yellowish-red; arista with four aristal rays; face dull brown-grey, broadened, slightly concave, in lateral view nearly straight; two facial setae (lower one shorter) close to peristoma; paraface narrow, smooth; gena narrow with numerous setulae, concolourous with face, eye to cheek ratio 7:1–5:1.

Mesonotum and notopleura yellowish-grey, dull, very sparse microtomentose; pleurae greyish-brown, dull; legs dark-brown; fore tarsus brown-black; mid and hind tarsi yellow with apical tarsomere darkened; fore male femur strong with a row of long hairs and without spinulae; wing obscure, second and third costal sections nearly equal; abdomen bronzish-black, shiny.

Distribution: Seychelles Is.

11. Ditrichophora (Ditrichophora) soikai (CANZONERI and MENEGHINI), comb. nov.

Discocerina (Ditrichophora) soikai CANZONERI and MENEGHINI, 1977: 25.

This species was described from specimens collected in Rieti (Italy) and is very closely related to *D. fuscella* (STENH.) and may be distinguished from the related species basing on the clearly lighter brown, dull, body colour and by the broadly browned tarsi.

Length of body 1.7–2.2 mm. Face greyish-brown, in lateral view distinctly prominent at the level of upper facial seta; paraface grey, narrow; two strong facial setae are present, the dorsal one coming from brown buttons; secondary row of facial setulae between dorsal facial seta and margin of paraface are present; gena grey, broad; eye to cheek ratio 3:1.

Body dull brown; legs black, mostly fore tarsomeres; fore femur with row of distinct black posteroventral spinulae; wings slightly infuscated, costal ratio 1.5:1; first costal section with spinulae of variable length.

Distribution: Italy.

Subgenus Gymnoclasiopa HENDEL

Gymnoclasiopa HENDEL, 1930: 136 (as subgenus of *Discocerina*). Type species: *Notiphila plumosa* FALLÉN, 1823, orig. des.

12. Ditrichophora (Gymnoclasiopa) collini (CANZONERI and MENEGHINI), comb. nov.

Discocerina (Ditrichophora) collini CANZONERI and MENEGHINI, 1977: 27.

Type material: Paratype ?male is labelled: "On trunks of large felled Pinus", "SERBIA Nr. Sid, Morovic. 29. 30. vi", "JUGOSLAVIA: 1955. R. L. COE. B. M. 1955–460.", "PARATYPUS

Discocerina (Ditr.) collini nov. det. CANZONERI S. det. MENEGHINI D." (red) (TZ; kindly offered by Dr. S. CANZONERI).

The species is a typical member of *Ditrichophora* (treated by CANZONERI and MENEGHINI, 1977 as subgenus only) to which it is now transferred. It was described basing on the holotype from Tarrington (Great Britain), as very similar to *D. plumosa* (FALLÉN) from which it may be easily distinguished basing on the presence of anterior supra-alar seta.

Length of body 3.1–3.2 mm. Face dark-brown in males, and greyish-brown in females; first flagellomere almost entirely red, greyish-yellow microtomentose; anterior supra-alar seta distinct; whole tarsi yellow.

Distribution: Austria, Great Britain, Italy, Yugoslavia.

13. Ditrichophora (Gymnoclasiopa) insolita (CANZONERI and MENEGHINI), comb. nov.

Discocerina (Ditrichophora) insolita CANZONERI and MENEGHINI, 1977: 25.

Material examined: Greece: Evritania Mt. Timfristos 1 km S. Ski Centre, 10 VI 1982, R. DANIELSSON, 1 ♂ (ZIL). Italy: S. Albino, M. Pulciano, Siena, VIII 1981, L. MORRI, 1 ex. (TZ).

This is a typical member of the genus *Ditrichophora*, as the genitalia and the external characters show. The species was described from specimens collected in Calabria, fiume Crati a Torano (Italy) and is closely related to *D. pulchella* (MEIGEN) from which it may be distinguished basing on the lighter colour of the mesonotum, entirely reddish first flagellomere, second costal section longer than the third, fifth abdominal segment hardly longer than the fourth.

Frons metallic with violet reflection; ocellar triangle sparse grey microtomentose, remaining part of frons with whitish microtomentum, not entirely covering the base of frons. Antennae light yellow, arista dark with 5 aristal rays; face slightly concave, white velvety microtomentose with greyish reflection; with 2 long and 1 ventral short facial setae. Mesonotum black, metallically shiny, sparse whitish and rust-coloured microtomentose; scutellum metallically shiny. Stem of halter brown; knob yellowish. Legs dark, only all four basal tarsomeres contrastingly yellow. Fore femora without spines, but with an anteroventral row of hairs.

Distribution: Greece, Italy.

13. Ditrichophora (Gymnoclasiopa) meridionalis (CANZONERI and MENEGHINI), comb. nov.

Discocerina (Ditrichophora) meridionalis CANZONERI and MENEGHINI, 1977: 26.

This species was described from fiume Ofanto a Barletta (Italy) and is similar to *D. pulchella* (MEIGEN), but is distinguished by the pale first flagellomere (at most with brown coloration dorsally) and apical tarsomere evidently browned.

Length of body 2.3–2.7 mm. Frons brown; anterior orbital seta lacking; antennae red, dorsally darkened, first flagellomere in some specimens nearly wholly dark, face slightly protruberant with facial carina at the level of dorsal facial setae, feebly developed; paraface and gena very narrow; eye to cheek ratio 6:1; face, paraface and gena silvery-white microtomentose, not so dense and shiny as in *D. plumosa*; two strong facial setae close to paraface, and 1–2 conspicuous setulae in secondary row.

Mesonotum and scutellum black, shiny with slightly olive reflection; supra-alar seta hairy; legs black, only knees slightly reddish, tarsi yellow with apical tarsomeres distinctly darkened, fore femur without spinulae; wings normal; first costal section with short subequal spinulae; costal ratio 2 : 1 – 2.5 : 1. Abdomen from black to olive-black, laterally and apically shiny and medial part mostly dull.

Distribution: Italy.

Genus Hecamedoides HENDEL

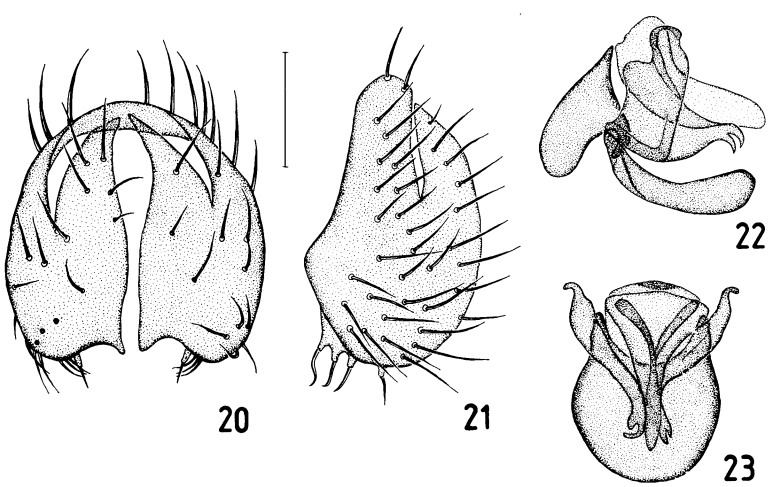
Hecamedoides HENDEL, 1917: 41. Type species: *Psilopa glaucella* STENHAMMAR, 1844, orig. des.

14. Hecamedoides infantinus (BECKER)

Discocerina infantina BECKER, 1924: 93.
Hecamedoides infantinus: COGAN and WIRTH, 1977: 327.
Hecamedoides sinensis CRESSON, 1939: 6, **syn. nov.**

Type material: Holotype male of the senior synonym is labelled: "7. XI", "Taihoku Formosa SAUTER, 1912", "BECKER det.", "TYPUS" (red), "*infantina* BECK." "Coll. DEI Eberswalde", "*Discocerina infantina* BECKER", "compare *Hecamedoides sinensis* CRESS. 1939, (103.) ? synonyms?" (COGAN's label) (DEI), and the holotype male of the junior synonym is labelled: "Holo-type" (round label with red margin), "CHINA Foochow 1935–6 M. S. YANG", "Coll. 7589", "TYPE *Hecamedoides SINENSIS* E. T. CRESSON, Jr." (carmine) (BMNH). Terminalia of both specimens preserved in plastic microvials.

H. infantinus (BECKER) is obviously identical with *H. sinensis* CRESSON, as this study of the type material of the two species demonstrates.



Figs. 20–23
Hecamedoides infantinus (BECKER) – 20–21. Epandrium, and cerci; 22–23. Internal male genitalia; 20, 23. Dorsal aspect; 21, 22. Lateral aspect (holotype)

Gena narrow; two primary facial setae ventrad of the strong dorsalmost one; the distance between dorsal facials greater than their distance to epistoma; facial prominence not broader than width of first flagellomere; wings slightly obscured, second costal section more than twice longer than the third.

Male genitalia: Cerci anterodorsally fused with epandrium; anterior margin of epandrium in dorsal view undulated, in lateral view with four well visible spines arising from small fold of epandrium, 3 ventral ones close each other, and 1 dorsal separately; aedeagus slightly arch-shaped in lateral view, irregularly triangular with basal part broad; gonites bifid apically; aedeagal apodeme anterodorsally with projection; hypandrium in dorsal view nearly round with posterolateral appendices (Figs. 20–23).

Distribution: China (Fukien), Taiwan.

Tribe Psilopini

Genus Psilopa FALLÉN

Psilopa FALLÉN, 1823: 6. Type species: *Notiphila nitidula* FALLÉN, 1813, des. RONDANI, 1856.

15. Psilopa nitidula (FALLÉN)

Notiphila nitidula FALLÉN, 1813: 252.
Psilopa nitidula: FALLÉN, 1823: 6.
Notiphila nigrimana VON ROSER, 1840: 61.

Type material: Holotype female of the junior synonym is labelled: "*nigrimana*, m. *compta* var?", "29", "*Ephygrobia nitidula* FLL det. BECKER", "HOLOTYPE *Notiphila nigrimana* VON ROSER" (purple) (SMN).

Other material: Bulgaria: Albena, VII–VIII 1972, M. BARTÁK, 1 ♂; Kotel, meadow nr. wood, 21 VII 1987, M. BARTÁK, 1 ♀; Sliven, 5 km N, along brook, 21 VII 1987, M. BARTÁK, 2 ♂ (MBP); Great Britain: Scily Is. St. Marys, 19 IV 1930, W. RICHARDS, 1 ♀. Morocco: Tangiers, V–1 VII 1960, 12 ex.; Ifrane, 1650 m, VI 1960, 4 ex.; Tetuan, VI 1960, N. H. L. KRAUSS, 1 ex. Portugal: Gouveia, VIII 1960, N. H. L. KRAUSS, 1 ex. Spain: Santiagode, Compostela, VIII 1960, N. H. L. KRAUSS, 2 ex. Sweden: Sk. Orup, 30 V 1956, R. DAHL, 5 ex.; Stockholm, 12 VII 1953, C. SABROSKY, 1 ♀ (USNM); USSR: Odessa, park vegetation, 18 IX 1986, M. BARTÁK, 1 ♀; Vzletnoe, edge of wood, 3 IX 1988, M. BARTÁK, 1 ♂ (MBP).

ROSER's species was cited by COGAN (1984) as a nomen dubium in *Notiphila*, although it had been earlier synonymized with *Psilopa nitidula* by BECKER (1903 b). After examination of the holotype of *N. nigrimana* I can confirm BECKER's statement.

Face weakly convex to nearly flat, entirely and sparsely pollinose; antennae pale with apex of first flagellomere darkened; fore legs dark with apex of tibia and tarsi rarely pale; mid and hind tibiae and tarsi pale, wings immaculate.

Distribution: Europe, North Africa, China (Tibet), Canary Is.

16. Psilopa polita (MACQUART)

Hydrellia polita MACQUART, 1835: 524.
Psilopa polita: LOEW, 1860: 10.
Notiphila coeruleifrons VON ROSER, 1840: 62, **syn. nov.**

Type material: Holotype female of the junior synonym is labelled: "*coeruleifrons*, m.", "v. ROSER", "HOLOTYPE *Notiphila coeruleifrons* VON ROSER" (SMN).

Other material: Austria: Lienz, 5 km E, edge of wood, 31 VII 1988, M. BARTÁK, 2 ♂, 1 ♀; Bulgaria: Albena, VII–VIII 1972, M. BARTAK, 1 ♀ (MBP); Germany: Berlin-Spandau, Pergande, VIII 1898, 5 ex., Brandenburg, 3 ex. France: Pau, Basses, Pyrenees, 9 IX 1966, N. L. H. KRAUSS, 3 ex. Japan: Tokyo, R. THAXTER, 1 ex.; Tokyo, 8 IV–11 VII 1953, P. W. OMAN, 129 ex., 4 X 1952, 10 ex.; Kyoto Honsh., 29 IX 1971, 34 ex., 8 V 1953, 6 ex.; Saitama Pref. Tokorizawa, 9 VII 1953, 12 ex.; Kyoto Pref. Kibune 10 V 1953, 2 ex.; Hokkaido Jozankei nr Sapporo, 7 VIII 1952, 2 ex.; Saitama Chichibu, 29 VIII 1952, 2 ex. Korea: near Seoul, VI 1955, light trap, 2 ex.; Tukto, 4 IX 1959, light trap, 1 ex. (USNM). Romania: Brezoi, 6 km W, meadow near river, 23 VII 1987, M. BARTÁK, 2 ♂, Carasova, 6 km N, flowering meadow, 13 VII 1987, M. BARTÁK, 1 ♀; Stoenesti, pasture nr. river, 14 VII 1987, M. BARTÁK, 1 ♀; Voineasa, pasture nr. river, 23 VII 1987, M. BARTÁK, 1 ♂, 2 ♀ (MBP); Spain: Bilbao, Vizcaya 11 IX 1966, N. L. H. KRAUSS, 2 ex.; Santiago de Compostella Coruna, IX 1966, N. L. H. KRAUSS, 1 ex. Sweden: Sm. Oskarshamn, 29 VIII 1956, R. DAHL, 1 ex. Switzerland: Delemond, 14–24 VIII 1964, C. W. SABROSKY, 1 ex. (USNM). USSR: Moscow-Izmailovo, park vegetation, 17 IX 1986, M. BARTÁK, 2 ♂, 3 ♀; Moscow rn. Vzletnoe, edge of wood, 3 IX 1988, M. BARTÁK, 1 ♂; Odessa, park vegetation, 18 IX 1986, M. BARTÁK, 1 ♂; Vzletnoe, edge of wood, 3 IX 1988, M. BARTÁK, 3 ♂, 3 ♀ (MBP); Vladivostok, 1923, COCKERELL, 1 ex. (USNM).

BECKER (1903b) could not locate *N. coeruleifrons* in ROSER's collection and the species was treated by COGAN (1984) as a nomen dubium in *Notiphila*. Furtunately I have been sent ROSER's type and found it to be a synonym of well-known and common Palaearctic species *Psilopa polita* (MACQUART).

Antennae mostly black, base of first flagellomere pale; face weakly polished, convex, about twice longer than broad, the convex medial area extending along the full length of face is polished, leaving the facialia and parafacials sparsely, but distinctly pruinose; legs black with tarsi sometimes pale; wings immaculate.

Distribution: Europe, Far East of the USSR, Korea, Japan (records from Oriental Region need confirmation).

Genus Scoliocephalus

Scoliocephalus BECKER, 1903a: 173. Type species: *Scoliocephalus pallidisetis* BECKER, 1903, mon.

Psiloposoma FREY, 1958a: 55. Type species: *Psiloposoma depressa* FREY, 1958 (= *Scoliocephalus pallidisetis* BECKER, 1903a), orig. des., **syn. nov.**

17. Scoliocephalus pallidisetis BECKER

Scoliocephalus pallidisetis BECKER, 1903a: 174.
Psiloposoma depressa FREY, 1958a: 55, **syn. nov.**

Type material: Holotype of the senior synonym (probably female without antennae) is labelled: "Alexandrien 44164 XI", "Holotypus" (ZMB), the lectotype of the junior synonym, herein designated, is labelled: "Fuerteventura Chilegua 4–14. 3. [19]49 LINDBERG", "Mus. Zool. Spec. typ. No." (red), "Loan No D. 8133" (yellow), and two female paralectotypes are labelled: 1) "Fuerteventura Chilegua 4–14. 3. [19]49 LINDBERG", "Mus. Zool. Spec. typ. No." (red), "*Psiloposoma depressa* n. g. n. sp.", "Loan No D. 8132" (yellow), 2) "Fuerteventura Chilegua 4–14. 3. [19]49 LINDBERG", "Paratypus" (red), "Loan No D. 8134" (yellow) (ZMH).

Other material: Canary Islands: Fuerteventura, Sta Inés, 20 II 1980, M. BÁEZ, 1 ♂ (MBT). Spain: Almeria, Rioja, 10 km N, 12 III 1966, L. LYNEBORG, 1 ex. (ZMC).

The genus is a member of Psilopini (MATHIS, 1985) with 3 described species: *pallidisetis* BECKER, *monochaeta* STEYSKAL, and *carboverdensis* KIRK-SPRINGS. *Psiloposoma depressa* FREY, a distinct species with pale legs, depressed face has been described before the true identity of *Scoliocephalus pallidisetis* was known. I have examined the holotype of the latter and have found it to be identical with *Scoliocephalus pallidisetis*, which was described from specimens collected in Egypt.

Distribution: Canary Islands, Egypt, Libya, Spain (Fig. 6).

Tribe Discomyzini

Genus Discomyza MEIGEN

Discomyza MEIGEN, 1830: 76. Type species: *Psilopa incurva* FALLÉN, 1823, mon.

18. Discomyza incurva (FALLÉN)

Psilopa incurva FALLÉN, 1823: 6.
Discomyza incurva: MEIGEN, 1830: 76.
Discomyza italica SÉGUY, 1929: 168, **syn. nov.**

Type material: Lectotype male, of the junior synonym, herein designated, is labelled: "Spilam berto-Emilia VIII-1928 C. MENOZZI", "*Discomyza Menozzii* S. TYPE E. SÉGUY det 1929", and paralectotype female is labelled: "Env. de Tanger", "MUSEUM PARIS MAROC OCC OUED JUDIOS G. BUCHET 1901", "*Discomyza Menozzii* S. TYPE SÉGUY det 1929" (MNHNP).

Other material: Albania: Dürazzo, V 1891, MIK, 1 ex. Austria: Bad Hall, CZERNY, 2 ex.; Gmunden, 4 ex.; Heiligenblut, H. FRANZ, 1 ex.; Kremsmünster, CZERNY, 15 ex.; Wien, 5 ex. (NMW); Steiermark, Goberlhause, 1450 m, 5 X 1973, F. & M. HELLER, 1 ♀ (SNM). Bulgaria: Albena, VII – VIII 1972, 1 ♀; Irakli, damp. meadow, 16 VII 1987, 1 ♀; Sliven, 13 km N, damp valley, 21 VII 1987, 1 ♀, all coll. M. BARTÁK (MBP). Cyprus: Ayia Napa, 10 km W Capo Greco, 13 – 23 VI 1983, B. PETERSEN, 1 ♀ (ZMC). Czechoslovakia: Čenkov, nr Dunaj river, 15 VII 1986, 3 ♀, 1 ♂; Hegy-Farok, fly trap, IV – VI 1986, 3 ♀; Kamenica/Hronom, 1 km N, steppe, 15. VII. 1986, 1 ♂; Praha-Bohnice, 1.5 km N, vegetation, 1 VII 1986, 2 ♀; Praha-Troja, fly trap, 3 VII – 29 VII 1986, 3 ♀; Šamorin, 6. – 10. VI. 1977, 1 ♀; Slapy, 1 – 2 km NE, 4 V 1982, 1 ♀; Sokoleč, edge of pine wood, 6. IV. 1988, 1 ♀; Šturovo, 2 – 25 IV 1986, 2 ♀, all coll. M. BARTÁK (MBP). Greece: N. Édhessa Ardhéal Notia, 3 IX 1983, Zool. Mus. Copenh. Exp., 1 ♀, 1 ♂ (ZMC). Italy: Viareggio, 15 – 27 VI 1960, F. HELLER, 1 ♀ (SNM). Norway: VE, Kjare Tjäme, 30 III – 30 IV 1965, FILLEBERG, 2 ♀, 1 ♂ (UMB). Poland: Grabowiec, dist. Pińczów, 15 VI 1957, EKIPA IZPAN, 1 ♂ (IZW). Spain: Castellon, Benicasim, olive garden, 30 III 1987, P. ARDÖ, 4 ♂, 2 ♀. Sweden: Sk. Klagshamnsudde, 27 V 1987, H. ANDERSSON, 1 ♀; Vg. 7 km S Trollhattan Åkersstrom, 22 VI 1988, R. DANIELSSON, 1 ♀ (ZIL). USSR: Valley od Volga near Saratov and Podstepnaja river, 28 VII 1927, A. POPOVA, 1 ex. (NMW); Serpuchov – 15 km E, mixed wood, 27. V. 1989, M. BARTÁK, 1 ♀ (MBP).

SÉGUY (1929) described two species: *Discomyza italica* and *Clanoneurum menozzii*, but probably initially he labelled the specimens with different names. Since locality data and description correspond well with above specimens I am sure they are the types of *Discomyza italica*. The same type locality of the species was repeated by SÉGUY (1934).

Earlier CRESSON (1939) suggested *D. italica* was only a form of *D. incurva*. My examination of the male terminalia and the external characters of lectotype of *D. italica* and specimens of *D. incurva* from Poland and Sweden confirms his opinion. Partially reddish fore basitarsomere, as the character of *D. italica* seems to be not of specific importance. I know

another, probably undescribed species of *Discomyza* from Spain, which differs from *D. incurva* by dull frons and the shape of epandrium, but in all specimens presented above I have found the same structures in the male terminalia, especially characteristic asymmetrical postgonites (right is about $^1/_4$ longer than left). Consequently there is no reason to treat *D. italica* as a valid species.

Distribution: Europe: Austria, Bulgaria, Czechoslovakia, Danmark, Finland, France, Great Britain, Hungary, Italy, Netherlands, Norway, Poland, Romania, Spain, Sweden, USSR: Ukraine; Asia: Japan; North Africa: Algeria, Morocco, Tunisia.

Tribe Typopsilopini

Genus Eleleides CRESSON

Eleleides CRESSON, 1948: 20. Type species: *Eleleides chloris* CRESSON, 1948, orig. des.

19. Eleleides chloris CRESSON

Eleleides chloris CRESSON, 1948: 20.

Type material: Holotype male is labelled: "Victoria 1888", "♂", orange label marked with ". – –", "Type" (pink), "6678 TYPE *Eleleides chloris* CRESSON", and on reverse side "Sel Roback" (red), "ANSP" (yellow) (ANSP).

Other material: Australia: NSW: Back Yamma, State Forest, 11 XI 1964, D. H. COLLESS; 1 ♂, 2 ♀; Forbes, 14 XI 1964, D. H. COLLESS, 1 ♂, 1 ♀ (USNM). Hong Kong: N. T. Taipokau, Kowloon, Malaise trap, light trap, 18 IX 1965, LEE KIT MING, HUI WAI MING, 1 ♀. Taiwan: Alishan, Chiayi Hsien, 2400 m, 12–16 VI 1965, T. MAA, K. S. LIN, 1 ♀; Chaochi nr. Yilan to Pinglin, Taipei Hsien, 15–16 IV 65, C. M. YOSHIMOTO, 1 ♀; Kwantzeling, Tainan Hsien, 250 m. 6–7IV 1965, C. M. YOSHIMOTO, 1 ♀, 1 ♂; Wulai Taipei hsien 150 m, 17 IV 1965, C. M. YOSHIMOTO, 1 ♂ (BPBM); Keelung, 7–8 V 1972, F. B. STEINER, 1 ♀ (CAS).

The species was described from Australia and previously was known only from New South Wales. The records noted here are the first from Oriental Region (those cited by MATHIS, 1989 were based on the above materials). The genus was included in the subfamily Parydrinae by MATHIS (1977), but was then returned to the tribe Typopsilopini (MATHIS, 1989), as it demonstrated many similarities in general appearance and the shape of male terminalia with *Typopsilopa*.

This species may be distinguished from related species as follows: Frons except for cinereous anterior margin shiny, frons and dorsal portion of face dark bluish green, first flagellomere and palpus black, eye to cheek ratio 0.25, supra-alar seta well developed, femora and tibiae dark with dorsal surface cinereous microtomentose.

Distribution: Australia (New South Wales), Hong Kong and Taiwan.

Tribe Hydrelliini

Genus Hydrellia ROBINEAU-DESVOIDY

Hydrellia ROBINEAU-DESVOIDY, 1830: 790. Type species: *Hydrellia communis* ROBINEAU-DESVOIDY, 1830 (= *Notiphila griseola* FALLÉN, 1813), designated by DESMAREST, 1845.

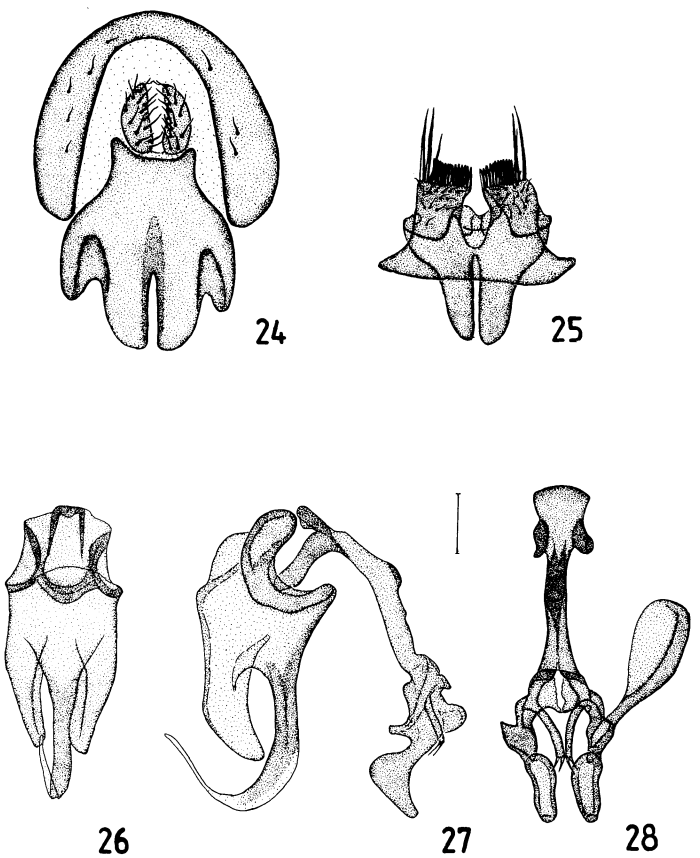
20. Hydrellia elegans DAHL

Hydrellia elegans DAHL, 1973: 349.
Hydrellia bucciarellii CANZONERI and MENEGHINI, 1975: 221, **syn. nov.**

Type material: Holotype male of *H. elegans* is glued to a square paper (dried male terminalia in glass vial) and is labelled: "Bala Murghab 30. 6. – 2. 7. 1964 470 m (37)", "N. Afghanistan Prov. Herat coll. O. JAKEŠ", "Holotypus *Hydrellia elegans* DAHL" (red), "Invent. č. [islo = number] 736/Ent. Mor. museum Brno" (with black suborder) (MMB), and 3 paratypes with essentially same locality labels bear inventory numbers 737 – 739.

Other material: Iran: Baluchistan, Iranshar, 800 m, 1 – 10 IV 1954, RICHTER & SCHÄUFFELE, 2 ♂, 1 ♀ (SMN). Jordan: Svaima, Dead Sea shore, 4 IV 1985, P. ARDÖ, 1 ♂ (ZIL).

Two species described in two year interval from nearby areas (*H. elegans* from Afghanistan and *H. bucciarellii* from Iran) seem to be, according to descriptions of external features, very closely related species. I have examined male terminalia of holotype of *H. elegans* and



Figs. 24 – 28
Hydrellia elegans DAHL – 24. External male genitalia, dorsal aspect; 25. Hypandrium, and fifth sternite, posterior aspect; 26. Aedeagus, dorsal aspect; 27. Aedeagus, aedeagal apodeme, pre- and postgonite, lateral aspect; 28. Aedeagal apodeme, pre- and postgonites (without right postgonite), dorsal aspect (Iran: Baluchistan)

a male from Iranshar and have found that they are the same as was figured for *H. bucciarellii*. The two species, therefore, are synonymised. DAHL (1973) figured fifth sternite and surstyli only, but CANZONERI and MENEGHINI (1975) aedeagus and external terminalia. They are all parts of the same structure, as shown in Figs. 24–28.

Distribution: Afghanistan, Iran, Jordan.

Tribe Gastropini

Genus Gastrops WILLISTON

Gastrops WILLISTON, 1897: 2. Type species: *Ephydra bispinosa* THOMSON, 1869 (= *Scatophaga bispinosa* FABRICIUS, 1805), mon.

21. Gastrops bicuspidatus (KARSCH) comb. nov.

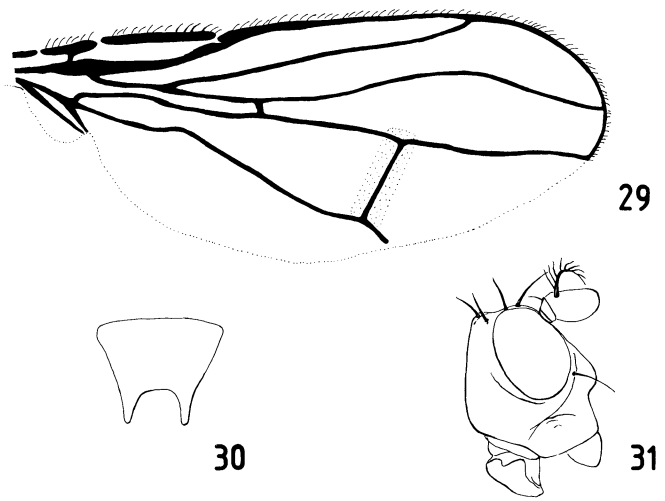
Parydra biscuspidata KARSCH, 1881: 15.

Type material: Holotype male of KARSCH's species is labelled "Porto Allegre Hensel" (green), 7325", "Type" (red), "bicuspidata *KRSCH." (green), "Zool. Mus. Berlin" (ZMB).

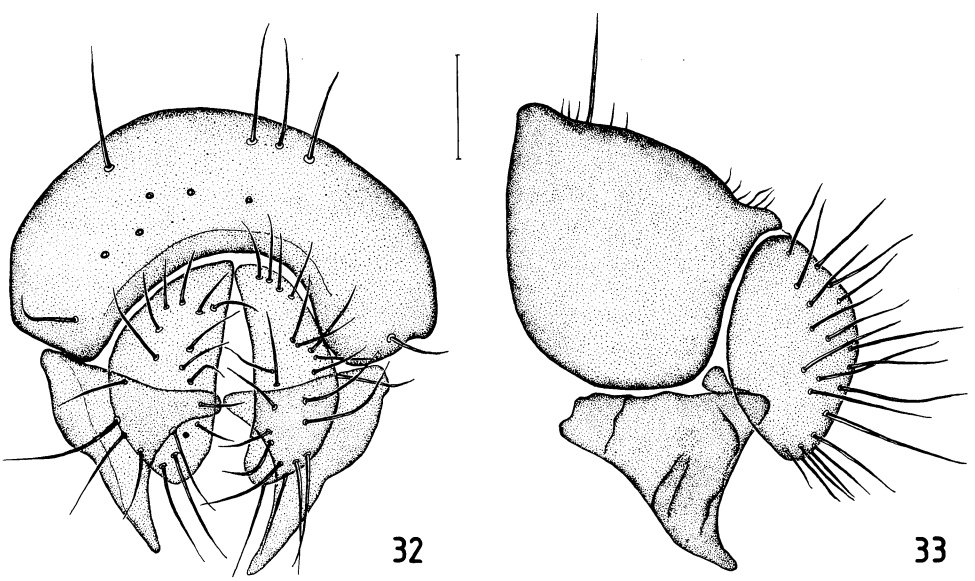
Length of body 3.70 mm. Frons broad, black, subshiny, dusty brown microtomentose. Lower proclinate orbital seta conspicuously anterior to lateroclinate posterior orbital seta. Only an outer vertical seta present, a little longer than orbital setae. Antennae yellowish, only 1/3 dorsal part of first flagellomere darkened. Scape very narrow, pedicel conical, broadened apically, first flagellomere in outline subrectangular, anteroventrally round; arista with 8–9 aristal rays. Face black, shiny, sparse brown microtomentose, medially with sharp carina, lower part of face also prominent, embracing protruded clypeus (Fig. 31). Three hairy facial setae, the dorsal one is the longest (subequal in length to antenna), medial and ventral facial setae about half the length of the dorsal one. Palpus black, elongate.

Mesonotum, pleurae, and scutellum black, subshiny, sparse brown microtomentose, and with short setulae. Mesonotum with longitudinal series of short setae; one distinct prescutellar seta, and one supra-alar seta, about $^2/_3$ the length of the latter. Two notopleural setae, the posterior about twice the length of the anterior. Two anepisternal setae, dorsal distinctly thicker and about twice the length of the ventral. One hairy proepisternal seta present. Scutellum convex with two posteroapical thorny appendices (Fig. 30). Stem of halteres yellowish, knob black. Legs blackish, except all three basal tarsomeres yellowish. Femora distinctly thickened, dorsally and ventrally with long hairs, the same parts of tibiae covered with short hairs. Wings slightly dusted, transverse veins darkened, second radial vein slightly undulating (Fig. 29).

Abdomen black, in outline oval, tergites densely pitted, covered with dense and short hairs. Male terminalia: Epandrium in lateral view broad, surrounding basal half of cerci; surstyli triangular with concave ventral margin, pointed apically (Figs. 32–33); hypandrium broadly oval, depressed, posteriorly incised in the middle; pregonite lobe-like situated at the base of postgonite, which is irregular in shape with two setae on dorsal margin, and one medial seta on under margin; aedeagal apodeme wided basally and narrower anteriorly; aedeagus bottle-like, in dorsal view with undulating lateral margins, ventral margin with medial sharp appendix (Figs. 34–35).

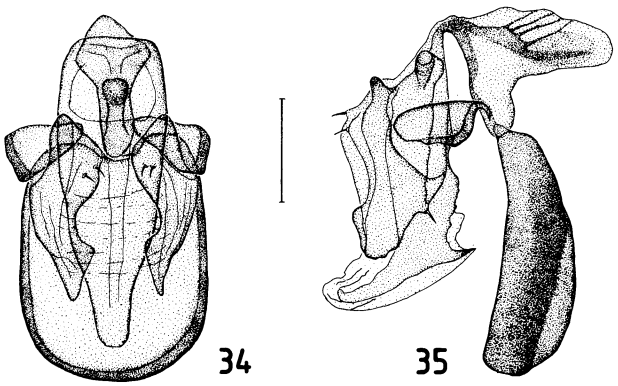


Figs. 29–31
Gastrops bicuspidatus (KARSCH) – 29. Wing; 30. Scutellum, dorsal aspect; 31. Head, lateral aspect (holotype)



Figs. 32–33
Gastrops bicuspidatus (KARSCH), external male genitalia – 32. Dorsal aspect; 33. Lateral aspect (holotype)

The species was described from one specimen that was collected in Porto Allegre (Brazil). It differs from all known species of *Gastrops* after LIZARRALDE DE GROSSO (1984), and WIRTH (1958) by the following characters: Scutellum with long tubercles, and second



Figs. 34–35
Gastrops bicuspidatus (KARSCH), internal male genitalia – 34. Dorsal aspect; 35. Lateral aspect (holotype)

transverse vein infuscate. This species was overlooked and therefore not mentioned by WIRTH (1968) in the series of Catalogues of Neotropical Diptera. Only JONES (1906) cited the species, but as an European member of *Parydra*.

Distribution: Brazil.

Tribe Hyadinini

Genus Axysta HALIDAY

Axysta HALIDAY, 1839: 406 (as subgenus of *Ephydra*). Type species: *Hydrina viridula* ROBINEAU-DESVOIDY, 1830 (= *Ephydra cesta* HALIDAY, 1833, missdet.), mon.

22. Axysta nigrifacies (MIYAGI), comb. nov.

Hyadina nigrifacies MIYAGI, 1977: 80.

The species was described from two "male" specimens from Sapporo and Toyotomi, Wakkanai on Hokkaido (Japan), but the figure MIYAGI (1977) presented is of the female terminalia. MIYAGI (1977) followed STURTEVANT and WHEELER (1954) and preferred to treat the genus *Hyadina* in the broader sense including the genera *Axysta* and *Lytogaster*. In my opinion (following CLAUSEN, 1983a, b) two above taxa are well characterized natural groups, and should be considered as valid genera.

Hence the species has typical features of the genus *Axysta*: Costa ending to third radial vein; dorsal surface of abdomen granulate, or finely pitted; whole body, including antennae, legs and halteres black, I propose to transfer it to *Axysta* HALIDAY.

Distribution: Hokkaido (Japan).

Genus Hyadina HALIDAY

Hyadina HALIDAY, 1839: 406. Type species: *Notiphila guttata* FALLÉN, 1813, des. WESTWOOD, 1840.

Neohydrellia MALLOCH, 1933: 14. Type species: *Neohydrellia hivaoae* MALLOCH, 1933, orig. des., **syn. nov.**.

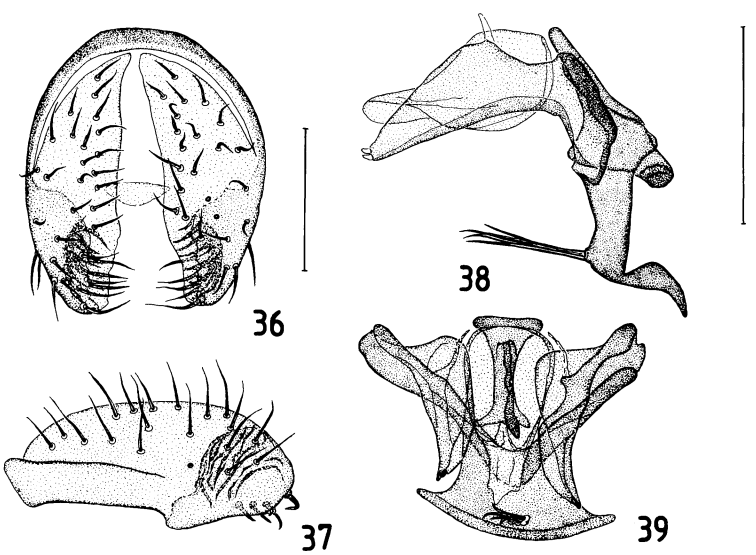
23. Hyadina hivaoae (MALLOCH), comb. nov.

Neohydrellia hivaoae MALLOCH, 1933: 14.
Hyadina vittifacies TENORIO, 1980: 294, **syn. nov.**

Type material: Holotype male of the senior synonym is labelled: "Tahauku, VII-10-1929", "HivaOa [blank place] ft.", "Marquesas Islands", "Mumford Adamson", "Pacific Entomo- logical Survey", "*Neohydrellia hivaoae* Type det JRMALLOCH 1183" (with black suborder) (BPBM), and paratype male (without left first flagellomere) with same locality labels, plus: "near shore", "*Neohydrellia hivaoae* Paratype" (with black suborder) (USNM), and paratype female (without left arista, right first flagellomere and destroyed base of right wing) of TENORIO's species is labelled: "LT. Trap Honolulu 4-IX-68 C.R. Toyee", "Paratype *Hyadina vittifacies* J. A. TENORIO 1971" (blue) (USNM).

Other material: India: Assam, Rupsi, 14 mi. NW Dhubri, 3 XI 1943, D. E. HARDY, 1 ♀ (USNM). Philippines: Palawan, Manatalingajan Pinigisan, 600 m., 7 IX 1961, Noona Dan Exp., 1 ♂. New Hybrides: Efate Vile, XII 1978, N. L. H. KRAUSS, 1 ♂; Tanna Lenekel, III 1980, N. L. H. KRAUSS, 2 ♀. Tonga: Tongatapu Nuku'alofa, I 1980, 1 ♀, 2 ♂. Cook Is.: Rarot onga Avatiu valley, III 1979, N. L. H. KRAUSS, 1 ♀ (ZMC). Papua New Guinea: Nat' 1. Capital Distr., Saraga (garden), 24 II 1985, 1 ♀; Central Prov.: Loloata Island (coast), 31 III 1985, 1 ♂, Rouna Falls (mossy cliff), 21 V 1986, 2 ♀, Hisiu (swept coastal vegetation), 22 III 1986, 1 ♀, Saraga (grasses), 5–7 V 1981, 2 ♂, 1 ♀; Morobe Prov.: Bubia (marsh), 30 IV 1986, 1 ♂, all leg. J. W. ISMAY. Tuamotu Is.: Makatea I., 25 I 1961, N. L. H. KRAUSS, 1 ♀ (USNM).

The generic name suggests a relationship with *Hydrellia*, and MALLOCH (1933) characterized his new genus as different from *Hydrellia* in many characters. At the end of the description, however, MALLOCH mentioned that "This genus is similar in some respects to *Hyadina* HALIDAY . . .". It really has typical features of *Hyadina* with which I propose to synonymize it. After examination of the holotype I am satisfied that all features characteristic for *Hyadina vittifacies* agree well with MALLOCH's species, and this makes it the junior synonym of *Hyadina hivaoae*.



Figs. 36–39
Hyadina hivaoae (MALLOCH) – 36–37. Epandrium, and cerci, posterior aspect; 38–39. Internal male genitalia; 36, 39. Dorsal aspect; 37–38. Lateral aspect (holotype)

The male terminalia of the species are characterized as follows: Cerci fused anterodorsally with narrow epandrium; surstyli wrinkled with 6–7 lateral setae and turned up below anterior part of epandrium (Figs. 36–37); hypandrium Y-shaped, broad apically with 4 long medial setae, two long posterolateral arms of hypandrium are united with bases of gonites; in dorsal view gonite triangular, ventral margin concave with two short obtuse appendices; aedeagal apodeme broader ventrally, irregular pointed apically (Figs. 38–39).

Distribution: Hawaii Is., India, Marquesas Is., Philippines, New Hybrides, Tonga, Cook Is., Papua New Guinea, Tuamotu Is.

24. Hyadina minima (PAPP) comb. nov.

Lytogaster minima PAPP, 1975: 214.

Type material: Holotype male is labelled: "PEST 13. IV", and on the reverse side "Füvesz [= botanical garden] KÉRT.[ESZ]", "tópert" [= lake shore] (blackish green), "Holotypus *Lytogaster minima* L. PAPP ♂" (with red suborder) (HNHM).

Other material: Czechoslovakia: Moravský Krumlov, deciduous forest, 17 V 1984, M. BARTÁK, 1 ♀ (MBP).

The concept of the genus *Lytogaster* of PAPP (1975), while describing the species was not correct, and perhaps it was the reason for including *H. minima* in the genus *Lytogaster*. In my opinion this species belongs to *Hyadina* to which it is now transferred.

Length of body 1.45 mm. Parafrons and ocellar triangle light grey; a small but rather prominent tubercle below antennae, gena very broad; mesonotum with 3 broad diffuse green stripes; legs dark brownish grey with yellowish knees, tibial apices and tarsi; wing small brownish with dark brown veins; halteres light brown.

Distribution: Czechoslovakia and Hungary.

25. Hyadina nigricornis FREY

Hyadina nigricornis FREY, 1930: 92.

Material examined: Denmark: Kobenhaven, Larsøen-Damhusmosen, R. W. SCHLICK, 1 ♀ (ZMC). Hungary: Agasegyháza, lápret, 13 VI 1973, L. PAPP, 1 ♂ (HNHM). Sweden: Skania: Krankesjön Nordsidan, 7 VI 1969, H. ANDERSSON, 1 ♂ (ZIL).

Mesofrons shiny black, before and behind ocellar triangle sparse grey microtomentose; ocellar triangle dull; mesofrons on the sides of ocellar triangle intensely shiny; parafrons from bases of antennae to eye velvety black. Two vertical setae moderately long, internal one 1/3 of the length of external seta. One lateroclinate orbital seta equal to internal vertical seta is situated just behind anterior ocellus. Antennae whole black, anterodorsal part of first flagellomere slightly bent upwards. Arista in apical half with seven short aristal rays. Face black with sparse grey microtomentum, only velvety black band on the dorsal part of face below margin of eye, reaches anteriorly to the base of dorsal facial seta, ventrally to 1/3 before the oral margin, the rest of the gena and occiput contrastingly whitish microtomentose, under part of face prominent with three short facial setae. Palpus black.

Most part of mesonotum and mid portion of scutellum subshiny black, sparse grey microtomentose. The side of scutellum laterad of apical scutellar seta, and hemicycle reaching to dorsocentral seta velvety black; postpronotum, base of notopleura, supra-alar area of mesonotum whitish microtomentose. Mesonotum with one relatively strong dorsocentral

seta, rays of acrostichal, dorsocentral and intra-alar setulae; one short hairy supra-alar seta. Notopleura with one seta situated in posterior part of it. Scutellum with one strong apical and one short hairy lateral seta. Pleurae dark; mesopleura black velvety microtomentose. Anepisternum and katepisterum lacking setae. Proepisternum and katepisternum dull; whitish microtomentose; anepimeron shiny black. Halteres dark-brown, knob elongated. Legs whole black. Wings slightly uniformly darkened. Vein r1 very short, slanting to the anterior margin of wing, ends just behind the second costal break.

Abdomen elongate, subshiny blackish-brown.

Distribution: Denmark, USSR (Leningrad Obl.), Hungary, and Southern Sweden (Fig. 10).

Genus Pelina HALIDAY

Pelina HALIDAY, 1839: 404. Type species: *Notiphila aenea* FALLÉN, 1813, mon.

26. Pelina nitens LOEW

Pelina nitens LOEW, 1873: 309.

Pelina pentheri CRESSON, 1934: 209, **syn. nov.**

Type material: Holotype male of *P. pentheri* is labelled: "♂", "Kara Köi Boz-Oyuk", "Dr. PENTHER As. minor", "TYPE No. 6503 *Pelina PENTHERI* E. T. CRESSON, Jr." (red), "ANSP" (yellow), and allotype female with this same locality labels and *"Pelina aenea* FALL", "ALLOTYPE *Pelina* ♀ *PENTHERI* E. T. CRESSON, Jr." (purple) (ANSP).

Other material: Czechoslovakia: H. Bezděkov, damp meadow, 4 X 1983, M. BARTÁK, 1 ♀ (MBP). Great Britain: Pattcornt, 30 VI 1906, 1 ex.; Noirn, 13 VII 1904, 1 ex.; Woodbridge, 30 VIII 1907, 1 ex.; Porthcard, 18 VI 1903, 1 ex., 23 VI 1906, 1 ex.; Sflk. Minomere, 24 V 1950, 1 ex. (HEC). Spain: Elche, CZERNY, 2 ♀, 2 ♂ (NMW).

P. nitens originally described from Italy was evidently overlooked by CRESSON (1934). Diagnostic features of *P. pentheri* are the same as of *P. nitens* given by BECKER (1926). Male terminalia of the holotype of CRESSON's species are essentially the same as those of *P. nitens* figured by DAHL (1975), and in species from COLLIN collection (see "other material").

Distribution: Afghanistan, Bulgaria, Czechoslovakia, France, Great Britain, Italy, Spain, Turkey.

Tribe Philygriini

Genus Nostima COQUILLETT

Nostima COQUILLETT, 1900: 35. Type species: *Nostima slossonae* COQUILLETT, 1900, orig. des.

27. Nostima flavitarsis CANZONERI and MENEGHINI

Nostima flavitarsis CANZONERI and MENEGHINI, 1969: 120.

Material examined: Ghana: Kumasi, 21–23 VI 1965, Endrody-Younga, 1 ex. (HNHM). Hong Kong: N. T. Taipokau, Kowloon, malaise trap, 2 VII 1965, LEE KIT MING, HUI WAI MING, 1 ♀, 1 ♂;

N. T. Taipokau, malaise trap, 22–24 VI 1964, W. J. Voss, Wai Ming Hui, 1 ♂ (BPBM). Oman: Muscat, 10 IV 1985, 1 ♀; Qurm, garden, 9 IV 1985, 1 ♂; Rustaq, habitation, 350 m., 8 IV 1985, 1 ♂, all coll. Paul Ardö (ZIL). Papua New Guinea: Central Province: Laloki, 10 VII 1985, 1 ♂, 1 ♀; Eilogo (grasses), 1 I 1981, 1 ♂, all coll. J. W. Ismay (USNM). Vietnam: Hanoi, 2 VI 1990, R. Dobosz, 1 ♂ (TZ).

This beautifully colored species was described from specimens collected in Zaire (the holotype in Museum of Central Africa in Tervuren, Belgium) and is characterized by the following features: Black shiny spots on the side of mesonotum, black scutellum, abdomen polished black, and whole legs yellow. It is the first record of *N. flavitarsis* in Oriental and Australasian Regions.

Distribution: Afrotropical: Ghana, Zaire, Oman; Oriental: Hong Kong, Papua New Guinea, and Vietnam.

Tribe Parydrini

Genus Parydra Stenhammar

Parydra Stenhammar, 1844: 144 (as "Sectio 3" of *Ephydra*). Type species: *Parydra aquila* Fallén, 1813, des. Coquillett, 1910.

Subgenus Chaetoapnaea Hendel

Chaetoapnaea Hendel, 1930: 150 (as subgenus of *Napaea* Rob.-Desv.). Type species: *Ephydra pusilla* Meigen, 1830, orig. des.

28. Parydra (Chaetoapnaea) mitis (Cresson)

Napaea mitis Cresson, 1930: 110.
Parydra mitis: Cogan, 1984: 163.
Napaea obscuripennis Duda, 1942: 37, **syn. nov.**
Parydra obscuripennis: Papp, 1979: 102.
Parydra raffonei Canzoneri, 1986: 29.

Type material: Holotype male of *P. mitis* Cresson is labelled: "Austria sup. Hammern, 11. 8. [18]77 Mik", "♂", "TYPE *Napaea MITIS* E. T. Cresson, Jr. 6362" (red) (ANSP), paratype female is labelled: "Austria sup. Hammern 23. 8. 73 Mik", Allo-TYPE *Napaea mitis* ♀ E. T. Cresson, Jr." (pink) (NMW), lectotype male of *P. obscuripennis* Duda is labelled: "18. 5. 21" (yellow) "Wüstung b. Habelschwerdt [= Bystrzyca Kłodzka, Poland] 1. Duda", "*obscuri-pennis* D ♂ Duda", "Lectotypus" (red), and 14 paralectotypes with same labels, as cited by Papp (1979) (ZMB).

Other material: Czechoslovakia: Mirosovice, pasture land, 17 IV 1983, 1 ♂; Prachatice Libinske sedlo, 800 m., 9 V 1987, 1 ♀; Velké Popovice, 2 km SE, 11 X 1987, 1 ♀, 26 IX 1982, 1 ♀; MS Beskydy, Muřinkovy peat-bog, 950 m., 21 VII 1988, 1 ♂; Šumava, Malá Niva, peat-bog, 780 m., 5 VII 1988, 1 ♂, all coll. M. Barták (MBP). Poland: Lubawka, distr. Jelenia Góra, 2 VIII 1983, T. Zatwarnicki, 4 ex. (TZ). Sweden: Sk. Klöva hallar, 11 VII 1982, H. Andersson, 2 ♂; Sm. Brömsebro, 4 VII 1987, R. Danielsson, 1 ♂ (ZIL).

Papp (1979) synonymized *P. obscuripennis* with *P. hecate* (Haliday, 1833), but this is incorrect. *P. hecate* according to the redescription of Collin (1914), is just another species

characterized by distinct cloud about tip of the second radial vein. *P. obscuripennis*, which has two elongate facial setae, and wings with small spots is found to be a synonym of *P. mitis*.

Face oblique slightly carinate medially, above with one seta on each side, gena narrow, not as broad as first flagellomere; frontal vittae weakly marked, slightly more opaque, but the frons is almost uniformly subopaque; wings brown infuscated, especially along the veins and at the crossveins, which are also accompanied by large whitish spots; halteres brownish. Internal male terminalia illustrated by KRIVOSHEINA (1989b).

Distribution: Austria, Czechoslovakia, Germany, Italy, Poland, Sweden (Fig. 46).

Subgenus Parydra s. str.

29. Parydra (Parydra) nigritarsis STROBL

Parydra nigritarsis STROBL, 1893b: 280.
Napaea quadripunctata var. *obliterata* DUDA, 1942: 38, **syn. nov.**
Parydra quadripunctata var. *obliterata*: PAPP, 1979: 102.

Type material: Lectotype male (genitalia in plastic vial) of DUDA's species is labelled: "25 9 VI" (yellow), "Ilfeld S. Harz DUDA", "*4-punctata* v. *obliterata* ♂ d. DUDA", "Lectotypus" (red), "Zool. Mus. Berlin" (yellow), and three paralectotypes with same labels, as cited by PAPP (1979) (ZMB).

Other material: Denmark: Bornholm Blykobbe, 19 VI 1964, L. L., O. M. & B. V. P., 1 ♀; Jylland Hojenbaekdal, 30 VII 1964, O. MARTIN, 1 ♂; NWZ Røsnaes, Kongstrup, 13 VI 1978, O. MARTIN, 1 ♀, Hojen Gah u. Vejle, 15 X 1973, T. MUNK, 1 ♂; Frederikshavn, VII 1881, 1 ♂ (MCZ). Italy: Rutcello za Monte Costa (BZ) Villa Bassa, 1300 m., 29 VIII 1974, 2 ♂ (TZ). Poland: Czernina, 14 VIII 1982, 1 ♀; Kamieniec Zabkowicki, distr. Walbrzych, 19 VI 1982, 1 ♀; Wrocław-Pracze, 18 IV 1985, 1 ♂, all coll. T. ZATWARNICKI (TZ). Romania: Brasov, Carpatian Mts. 600 m., 22 VIII 1965, B. H. COGAN, 2 ♀, 1 ♂; nr. Ciucea, swept from banks of small stream in meadow, 20 VIII 1965, B. H. COGAN, 1 ♂ (BMNH). Sweden: Sk. Löddeköpinge, 19 VIII 195?, ARDÖ, 2 ♀ (USNM).

I do not accept the synonymy of *Napaea quadriguttata* var. *obliterata* with *P. quadriguttata* (MEIGEN) proposed by PAPP (1979), and with *P. coarctata* (FALLÉN) suggested by KRIVOSHEINA (1989b). I recognize *P. coarctata*, *P. quadriguttata* and *P. nigritarsis* as

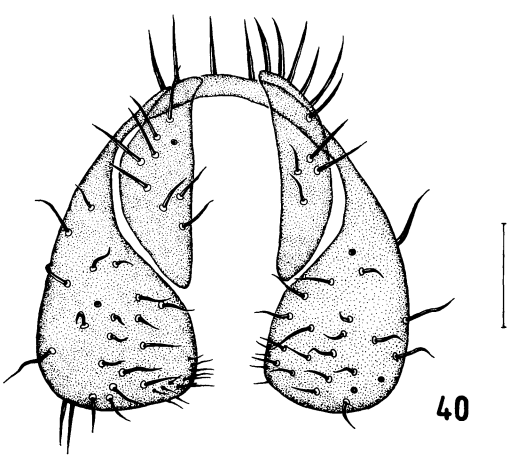
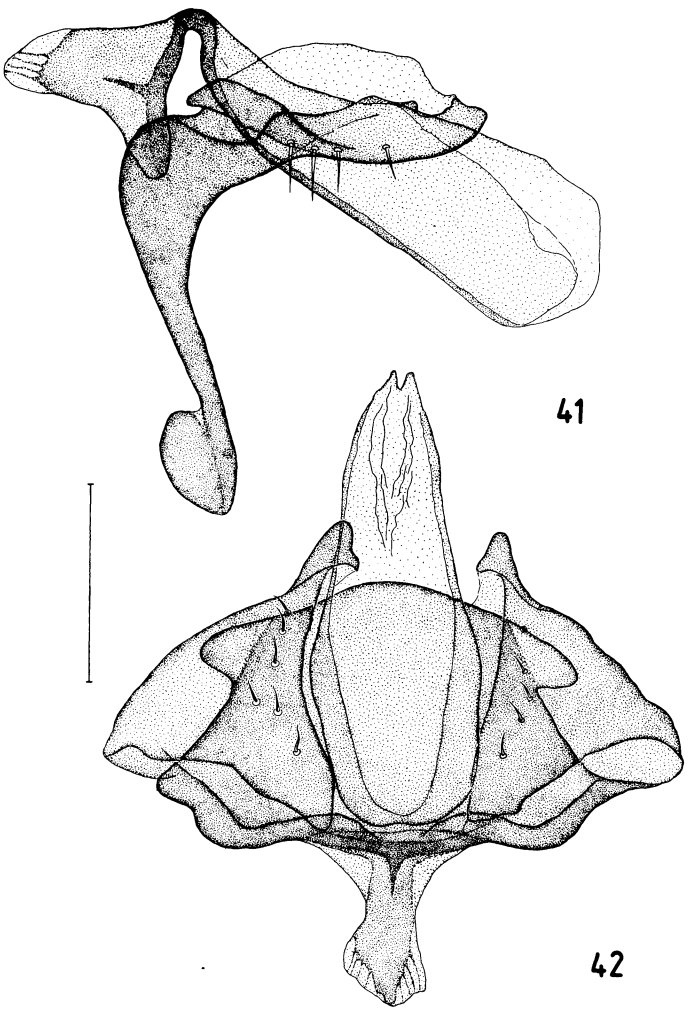


Fig. 40
Parydra nigritarsis STROBL, epandrium, and cerci, posterior aspect (lectotype of Parydra obliterata Duda)

distinct species different from each other ion the shape of scutellum, colouration of wing, tarsi, and the features of male terminalia. The lectotype of DUDA's species was found to match the description of *Parydra nigritarsis*.

Internal male genitalia: Aedeagus obclavate, incised apically, fused with aedeagal apodeme. Aedeagal apodeme in lateral view irregularly triangular, with ventral margin not convex. Apical part of gonites short (about 1/4 length of the base of gonite), and triangular, ventral margin of gonite in lateral view broadly round (Figs. 40–42). Male genitalia in *Parydra coarctata* differ as follows: Aedeagus ovate, in lateral view dorsally depressed in



Figs. 41–42
Parydra nigritarsis STROBL, internal male genitalia – 41. Lateral aspect; 42. Dorsal aspect (lectotype of Parydra obliterata Duda)

the middle; ventral margin of the aedeagal apodeme evidently convex; apical part of gonites longer (about 1/2 length of the base of gonite), and elongate; ventral margin of gonite in lateral view nearly straight.

This species is distinguished from other *Parydra* species by it wings, which are distinctly, but uniformly brownish; white spots very pronounced, but small; tarsi black or brownish basally, covered with reddish hairs ventrally.

Distribution: Austria, Denmark, France, Great Britain, Italy, Poland, Romania, Sweden.

Tribe Ephydrini

Genus Halmopota HALIDAY

Halmopota HALIDAY in WALKER, 1856: 346. Type species: *Ephydra salinaria* BOUCHÈ, 1834, mon.

30. Halmopota anatolica CANZONERI and MENEGHINI, stat. nov.

Halmopota mediterranea anatolica CANZONERI and MENEGHINI, 1974: 151.

It is possible that the authors while diagnosing the taxon hesitated on its independence, but they recognized his close relationship with *H. mediterranea* LOEW, the form was described as a subspecies of the latter. However some external specific features and differences in the shape of the male genitalia illustrated by CANZONERI and MENEGHINI (1974) are strong enough to treat this form as a valid species.

Distribution: Turkey.

31. Halmopota septentrionalis CANZONERI and MENEGHINI, stat. nov.

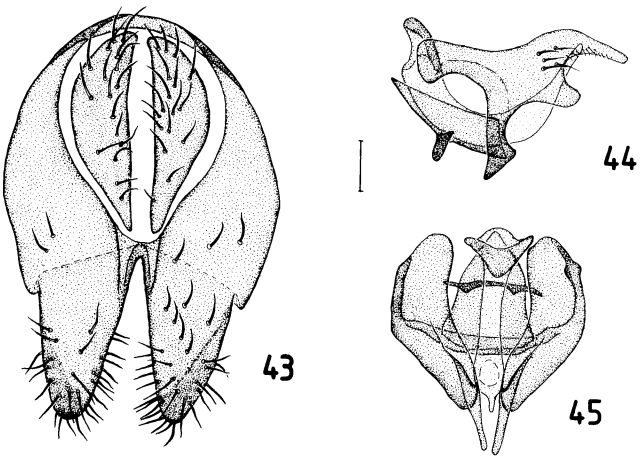
Halmopota mediterranea septentrionalis CANZONERI and MENEGHINI, 1974: 150.

Type material: Two paratypes are labelled: male: "GRADO VECCHIA BONIFICE VEGETAZ. MISTA 25-III-1959", "PARATYPUS *Halmopota mediterranea septentrionalis* det CANZONERI S." (red), and female: "FIUME AGRI sulla Strada Jonica terreno nudo 16-IV-54 A. GIORDANI SOIKA", "PARATYPUS *H. MEDITERRANEA SEPTENTRIONALIS* det CANZONERI S." (red) (TZ; kindly offered by Dr. S. CANZONERI).

Another form of *Halmopota* originally described as a subspecies. It differs in the external features and the shape of the male terminalia from its congeners, therefore it receives full specific status here. The species (under the name *H. mediterranea* LOEW) was redescribed by KRIVOSHEINA (1989a).

Male genitalia characterized by gonite not bifurcate apically, with lobate anteroventral appendix, and U-shaped aedeagus (Figs. 43–45).

Distribution: Italy, Turkey, Yugoslavia, and USSR (Tadzhikistan, Turkmen SSR).



Figs. 43–45
Halmopota septentrionalis CANZONERI and MENEGHINI – 43. External male genitalia, posterior aspect; 44–45. Internal male genitalia; 44. Lateral aspect; 45. Dorsal aspect (Paratype)

Genus Setacera CRESSON

Setacera CRESSON, 1930: 116. Type species: *Ephydra pacifica* CRESSON, 1925, orig. des.

32. Setacera trina COLLIN

Setacera trina COLLIN, 1964: 147.
Setacera meneghinii CANZONERI, 1978: 167, **syn. nov.**

Type material: Lectotype male of the senior species is labelled: "Snaiwell 4. 7. 11", "Lectotype *Setacera trina* COLLIN ♂ by W. N. MATHIS", and 11 paralectotypes are labelled: "nr Kuw 4/8/68" (4 females), "Ringwood 26/6/74" (1 male, and 1 specimens without abdomen), "Jerowoso 7. 8. 03" (male), "Jerowoso 8. 8. 03" (male), "Jerowoso 12. 8. 03" (female), "Sti Pond 29. 7. 05" (male), "Kummett 24. 3. 49" (female) (HEC), and paratype male (with genitalia prepared in plastic microvial) of the junior species is labelled: "RIETI Sorgenti Solfuree, 14-VIII-58 A. GIORDANI SOIKA", "PARATYPUS *meneghinii* nov. det. CANZONERI S." (red) (MCSNV).

Other material: Poland: Bojanowo, 27 VII–3 VIII 1984, T. ZATWARNICKI, 3 ♂, 5 ♀ (TZ). Yugoslavia: Bosnia and Herzegovina: Hutovo Blato-Drijen (8–10 km SE Capljina), 10 IX 1987, W. N. MATHIS, 12 ♂, 17 ♀; Londza (8–10 km SE Capljina), 13 IX 1987, W. N. MATHIS, 8 ♂, 6 ♀ (USNM).

The species is closely related to *S. aurata* (STENHAMMAR), and both should be included in the same group. The species was collected in Poland together with *S. breviventris* (LOEW) on the water surface of little pond at the side of the road. The species may be easily misdetermined, as it differs from its congeners mainly in conformation of the male terminalia. MATHIS (1982) treated *S. meneghinii* as a valid species based on the few specimens then available for study (four specimens of both species) and distinguished it from *S. trina* by "gonite with secondary process more band-like than triangular, taper at base gradual, becoming more abrupt toward apex" in the key, but in the drawings of gonites in lateral

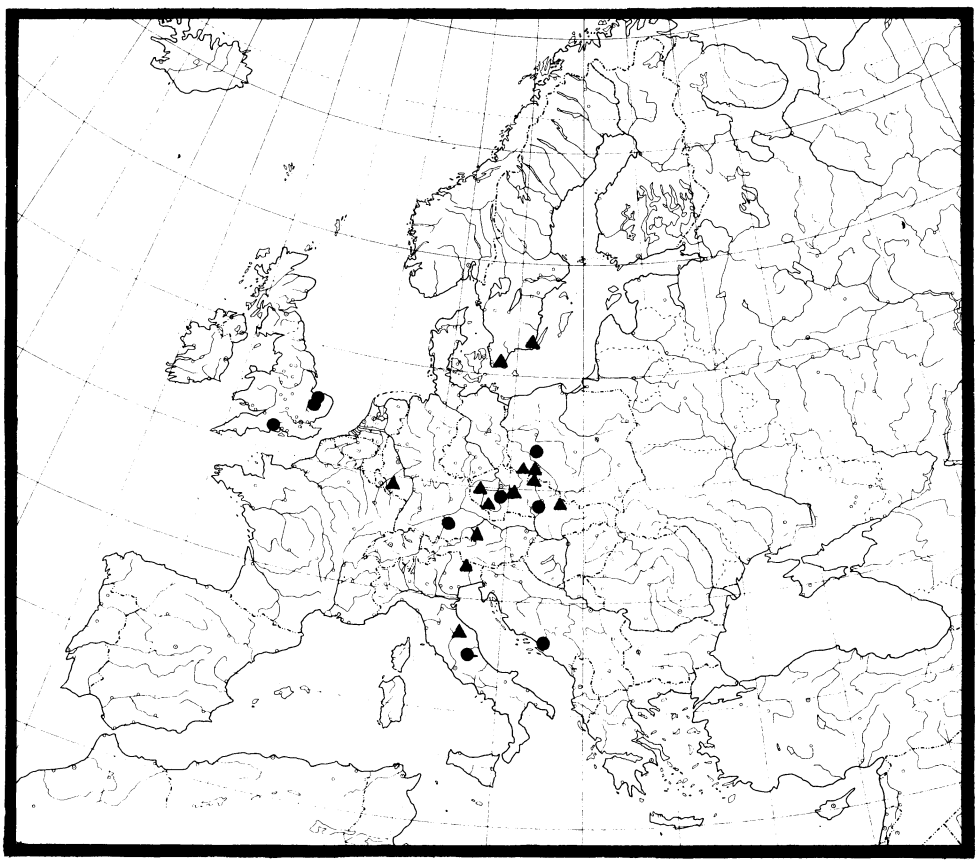


Fig. 46
Distribution map of *Parydra mitis* (triangles), and *Setacera trina* (circles)

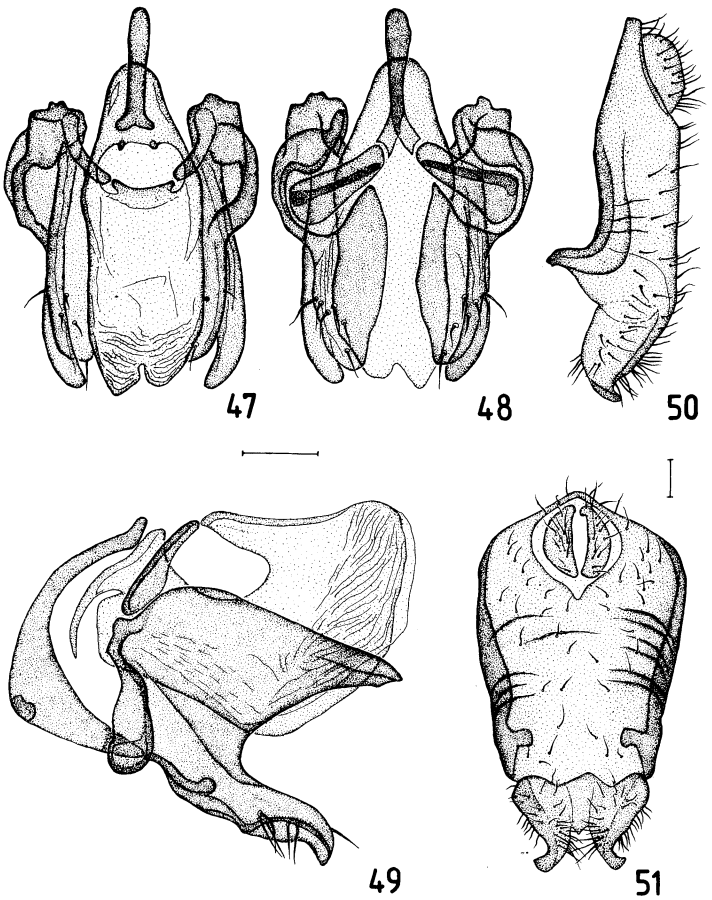
aspect (Figs. 68 and 72 in MATHIS, 1982) no distinct differences were found. My examination of the types and additional materials establishes the identity of both species, and differences not to be of specific value. The drawings of male terminalia were made by COLLIN in lateral aspect, and those made by CANZONERI (1978) in posterior aspect, however they present the same structure as on my figures made from one specimen (Figs. 47–51).

Distribution: Czechoslovakia, Germany, Great Britain, Italy, Poland, Yugoslavia (Fig. 46).

Tribe Scatellini

Genus Scatella ROBINEAU-DESVOIDY

Scatella ROBINEAU-DESVOIDY, 1830: 801. Type species: *Scatella buccata* ROBINEAU-DESVOIDY, 1830 (= *Ephydra stagnalis* FALLÉN, 1813), des. COQUILLETT, 1910.



Figs. 47–51
Setacera trina COLLIN – 47–49. Internal male genitalia; 50–51. External male genitalia; 47, 51. Dorsal aspect; 48. Ventral aspect; 49–50. Lateral aspect (Poland: Bojanowo)

Subgenus Scatella s. str.

33. Scatella (Scatella) rufipes STROBL, stat. nov.

Scat.[ella] Lutosa var. *rufipes* STROBL, 1905: 371.
Scatella rubida BECKER, 1907: 399, **syn. nov.**

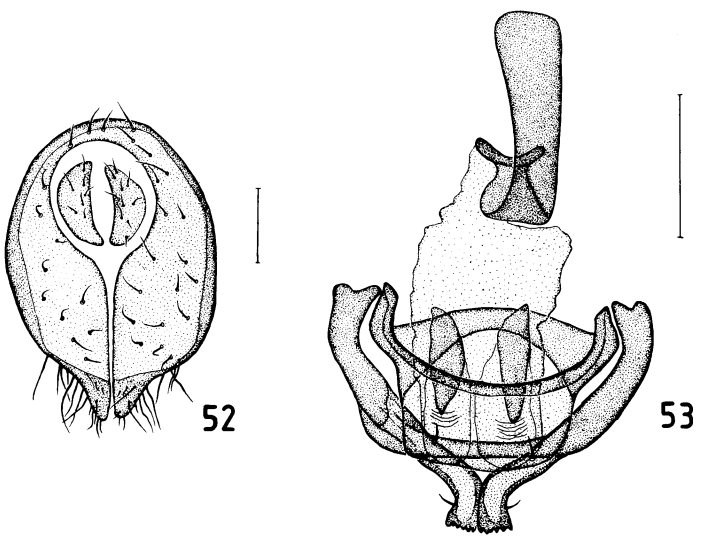
Type material: Holotype female (without antennae and right wing) is labelled: "Elche Czerny", and "10/5. [19]01" on the upper side (NMW).

Other material: Mallorca: Alcudia (bahia), 28 V–9 VI 1956, M. BECQUAERT, 5 ♀, 5 ♂ (MRHNB). Iraq: Baghdad, 22 VII 1954, K. KHALAF, 1 ♀ (USNM). Jordan: Svaima, Dead Sea shore, 4 IV 1985, P. ARDÖ, 7 ♀, 2 ♂ (ZIL).

The holotype female of *Scatella lutosa* var. *rufipes* collected by a river near Elche (Spain) was found as good species, but obviously identical with *Scatella rubida* that was described from specimens collected in Algeria (Biskra).

External male terminalia do not differ distinctly from other *Scatella* species (Fig. 52); gonite with one lateroventral seta situated just before gonal arch, and one minute subapical seta, gonite with obtuse and serrate anterior margin (Fig. 53).

Distribution: South Europe, North Africa, and the Near East (Fig. 6).



Figs. 52–53
Scatella rufipes STROBL – 52. Epandrium, and cerci, posterior aspect; 53. Internal male genitalia; 52–53. Dorsal aspect (Mallorca)

Genus Scatophila BECKER

Scatophila BECKER, 1896: 237. Type species: *Ephydra caviceps* STENHAMMAR, 1844, orig. des.

Centromeromyia FREY, 1954: 40. Type species: *Centromeromyia eremita* FREY, 1954, orig. des., **syn. nov.**

34. Scatophila eremita (FREY), comb. nov.

Centromeromyia eremita FREY, 1954: 41.

The suggestion of FREY (1954), that the presence of ventral row of spinulae on midfemur in male of species he described is exceptional among shore flies was not accurate. However, it was the only character, which supported the erection of new genus *Centromeromyia*, and distinguished it from *Scatophila*. This row of spinulae, as dimorphic feature, characterizes the monophyletic group of five species of *Scatophila*, closely related to *S. despecta* (HALIDAY), and is not of generic value. Following features: Short costal vein, reaching to apex of third radial vein; bare arista; arrangement of mesonotal setae, and brownish wings

with light spots, which characterize *Centromeromyia*, refer also to *Scatophila*. In my oppinion there is no synapomorphy, which can distinguish *Centromeromyia* as separate genus and I propose the synonymization of it with *Scatophila*.

Distribution: Tristan da Cuhna Islands.

Species removed from the family

35. Pelomyiella opacula (ZETTERSTEDT), comb. nov.

Notiphila opacula ZETTERSTEDT, 1860: 6317.

Type material: Holotype male is labelled: "Ills.[torp] 5/7", "*Not. opacula* ZETT. n. sp. ♂ 12 = 57 (*Hydrellia opaca* MEIG esl longe diversa).", "1985 298" (blue) (ZIL).

The holotype of the species clearly does not belong to the family Ephydridae, but it is the member of Tethinidae and belongs to the genus *Pelomyiella*, to which it is now transferred. The species is probably a synonym of *Pelomyiella cinerea* HALIDAY, or a closely related species, but the author is not familiar with Tethinidae, and leaves the question of its position within *Pelomyiella* to other students.

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Authors' address:

TADEUSZ ZATWARNICKI
Department of Zoology
Academy of Agriculture
ul. Cybulskiego 20
50-205 Wrocław, Poland