

Contribution to knowledge of shore flies (Diptera: Ephydriidae) in Romania

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Rezumat

Contribuții la cunoașterea familiei Ephydriidae (Diptera) în România

Lucrarea cuprinde date referitoare la răspândirea a 86 de specii aparținând la 32 de genuri de diptere higrofile din familia Ephydriidae, colectate în decurs de peste 25 de ani, în cea mai mare parte din nordul Carpaților Orientali și din sudul țării.

Dintre acestea sunt menționate ca noi pentru fauna țării, genurile *Cnestrum* BECKER 1896, *Axista* HALIDAY 1839 și *Lytogaster* BECKER 1896, precum și următoarele 20 de specii: *Cnestrum lepidopes* BECK., *Psilopa nigritella* STENH., *Hydrellia albiceps* (MEIG.), *H. appendiculata* COLL., *H. argyrogenes* BECK., *H. flavipes* (MEIG.), *Notiphila aquatica* BECK., *Ditrichophora coxalis* (STR.), *Ilythea spilota* (CURT.), *Axista ceta* (HAL.), *Lytogaster abdominalis* (STENH.), *Philygria flavipes* (FALL.), *Ph. interrupta* (HAL.), *Ph. posticata* MEIG., *Parydra nigritarsis* STR., *P. quinquemaculata* BECK., *Coenia curvicauda* (MEIG.), *Lamproscatella bimaculata* HEND., *Limnellia fallax* (Cz.) și *L. stenhammeri* (ZETT.).

Keywords: Ephydriidae, shore flies, faunistical records.

The commonly called "shore flies" are small to moderate flies (1-11 mm length), represented by about 140 genera and more than 1300 species in the world. At present 60 genera and 466 species are known from the Palaearctic region (CAGAN 1984).

The body is usually dull and dark and very diverse in structure and ornamentation. The majority of species are aquatic or semiaquatic in larval stage and feed on algae, bacteria and other microorganisms. Several genera are adapted for diverse habitats with very large amplitude of salt concentration. The larvae of some species of the genera *Clanoneurum* BECKER, *Hydrellia* ROBINEAU-DESVOIDY and *Psilopora* FALLÉN, are leaf-miners, the larvae of *Trimerina madizans* (FALL.) are parasitoids in egg cocoons of marsh-inhabiting spiders and the larvae of *Ochthera* LATREILLE species are predators of immature stages of Chironomidae.

Adults are microphagous or feeding with microscopic algae and bacteria. Some genera are polyphagous, scavenging in dead or drying insects, other feed on nectar besides having the microphagous habit e. g. adults of *Hydrellia* (DORNIER 1971), *Hecamede* HOLIDAY (ARDÓ 1957), *Notiphila* FALLÉN (DAHL 1959).

The mating behaviour has been studied by DAHL (1959) and DEONIER (1971) and the ovipositing behaviour has been described by WIRTH (1971) and SIMPSON (1976b).

The study of DAHL (1959) on the ecology of the Scandinavian ephydriids is a basic work in the research of this family. Other authors that have studied some aspects in ecology of shore flies are DEONIER (1965), SCHEIRING & FOOTE (1973), COLLIN (1975) and SIMPSON (1976b).

The classification of the Ephydriidae developed by HOLIDAY (1839), modified and elaborated by LOEW (1860) and BECKER (1896, 1926) divided the family in three subfamilies (Ephydrinae, Notiphilinae and Hydrellinae).

CRESSON (1942-1949) are elaborated a new classification in which recognized four subfamilies - Psilopinae, Hydrelliinae, Parydrinae and Ephydrinae. COGAN (1984) are distinguished 5 subfamilies - Psilopinae, Nannodastiinae, Notiphilinae, Parydrinae and Ephydrinae. A new attempt in classification of this family has been made by ZATVARNICKI (1992). He distinguished 5 subfamilies - Discomyzinae, Hydrellinae, Gymnomyzinae, Ilytherinae and Ephydrinae.

Certain genera has been revised by COLLIN (1930, 1942, 1943), DAHL (1959, 1964), ANDERSSON (1971), WIRTH (1971, 1975), MATHIS (1978, 1979a, b), MATHIS & SHEWELL (1978), PAPP (1979).

The most comprehensive key to genera is that of WIRTH, MATHIS and VOCKEROTH (1987) for the Nearctic region, which may be used for the Palaearctic region.

Data on the Romanian fauna of shore flies has been recorded by STROBL (1975), THALHAMMER (1899, 1902), PAPP (1975), URSU (1983, 1985, 1989), URSU & PĂRVU (1982). Small contributions has ben added by BUJOR (1900), MÓCZÁR (1952), ȚUCULESCU (1965), GÁLDEAN (1970) and NAGY (1977).

The present contribution to the knowledge of shore flies is the result of over 25 years of collecting work and reports finding of 20 species and 3 genera new to Romania.

Material and method

The flies were collected by sweeping in wetlands, lakes and rivers shores.

The most extensively studied area was Valea Caselor (Caselor Valley) near the locality Câmpulung-Moldovenesc. It includes a marsh fed by a spring that rarely dries up completely. In droughts small wet patches remain and the Ephydriidae may be congregated there. The vegetation is composed by hygrophilous plants (species of *Juncus*, *Carex*, *Eriophorum*, *Scirpus*, *Alisma* and *Sagittaria*). In the interval of twenty years I have collected in this marsh 48 shore fly species. From these species, 9 were recorded for the first time in Romania.

Another intensively investigated site was a wet meadow at Putna Valley (15 km from Câmpulung-Moldovenesc) with a vegetation composed by *Petasites*, *Tussilago*, *Carex* and hygrophilous Gramineae. In this biotope 25 species of Ephydriidae have been collected.

In a marsh from Cornetu, near Bucharest 25 species have been collected and in Bucharest Botanical Garden, Carol and Tineretului Parks - 29 species.

Sporadic collections were made in other mountainous and submountainous localities from Eastern, Southern and Western Carpathians and Black Sea coast.

For the collecting localities and sites, the following abbreviations are used (the counties and the mountainous massifs are mentioned between parentheses).

Surroundings of Câmpulung-Moldovenesc (CM) (Suceava):

CM-D - Deia (700-800 m), CM-DR - Dosul Runcului (1000-1100 m), CM-Mest - pârâul Mestacăn (800-1000 m), CM-MD - Moara Dracului (800-900 m), CM-Mold r. - Molova river (600-700 m), CM-Pr. M - pârâul Moru (700 m), CM-PB - Podul Bucătarului (600 m), CM-Sd - pârâul Șandru (600-700m), CM-VC - Valea Caselor (600 m).

Surroundings of Valea Putnei (VP) (Suceava):

VP-l meadow (900 m), VP-PrM - pârâul Moșu (900-1000 m), VP-PrC - pârâul Cârjoi, VM-PM - Putna Mică (1000 m), VP-T - Tunel (1000 m).

The other more frequently cited localities were abbreviated as follows:

BH - Băile Herculane (Caraș-Severin), BR - Broșteni (Suceava), Buc - Bucharest, Cal - Călimani (Suceava Mts.), Ch-T - Turda Gorges (Cheile Turzii)(Cluj), C-Voiv - Codrul Voievodești (Suceava), Cor - Cornetu (Giurgiu), Fr - Frasin (Suceava), H - Hâncești (Suceava), Il - Ilișești (Suceava), J - Jegalia-gară (Ialomița), M - Mamaia (Constanța), Mest - Mestecăniș (Suceava), Mg - Mangalia (Constanța), Mold-D - Demacusa (Moldovița)(Suceava), Palt - Păltinoasa (Suceava), P-St - Poiana Stampei, Sl - Slătioara reserve (Suceava), Sn - Snagov (Ilfov), Sol - Solca (Suceava), VD - Vatra Dornei (Suceava).

When listing distribution data, the following abbreviations were used:

A - Austria, BG - Bulgaria, Carp - Carpathians, CS - Czechia and Slovakia, D - Germany, Euro Rs - European Russia, ES, ES - Eastern Siberia, F - France, FE - Far east, FS - Fennoscandia, GB - Great Britain, H - Hungary, KZ - Kazakhstan, N - North, NL - Holland, MA - Middle Asia, PL - Poland, R - Romania, S - South, TC - Transcaucasus, TR - Turkey, ZU former Yugoslavia, Uk - Ukraine, W - West, WS - Western Siberia.

Results and discussion

The shore flies material comprises 869 specimens belonging to 86 species and 32 genera. Of these, 2 species and 3 genera are new for the Romanian fauna.

Subfam. Dyscomyzinae Trib Dyscomyzini

1. *Discomyza incurva* (FALLÉN 1823)

Previous records: URSU & PĂRVU (1982)

New records: E. Carp - CM - VC, 12.07.1981, 2%; 21.07.1982, 1%; 28.05.1983, 1%; 13.06.1986, 1%; Southwestern R: Coz. 4.07.1980, 1%; 12.06.1981, 1%; M., 14.08.1984, 1%.

Trib Psilopini

2. *Cnestrum lepidopes* BECKER 1896

First record for Romania: E - Carp. - VP - PrM, 30.05.1981, 1%; 6.09.1984, 1 &; C. Voiv. - 7.05.1984, 1 &; CM - VC 30.07.1985, 1 &; 29.08.1992, 1 &.

Observation: This species is known from PL (COGAN 1984) and FE (KRIVOSHEINA 1988). The puparium was described by KRIVOSHEINA (1988).

3. *Psilopa compta* (MEIGEN 1830)

Previous records: THALHAMMER (1899), URSU & PĂRVU (1982).

New records: E. Carp. - CM - PB, 9.08.1975, 1 &; CM - VC, 6.05.1984, 1 &; Southern R: M, 4.08.1984, 1 &; Cor., 10.06.1985, 1%.

Distribution: This species is Holarctic.

4. *Psilopa leucostoma* MEIGEN 1830

Previous records: URSU (1985).

New records: Southern R - Cor., 18.10.1981, 1 &; Buc. 3.09.1994, 1%.

5. *Psilopa nana* LOEW 1860

Previous records: URSU & PĂRVU (1982).

New records: Southern R. - Cor., 18.10.1978, 1%; Buc., 3.09.1994, 1 &.

6. *Psilopa nigrifella* STENHAMMER 1844

First record: E. Carp - CM - VC, 23.05.1981, 1%; 30.07.1983, 1%; Southern R.: Buc., 3.09.1994, 1%, 1 &.

Distribution: This species is distributed in Europe, Asia (NE Tibet), N. Africa.

7. *Psilopa nitidula* (FALLÉN 1812)

Previous records: STROBL (1897), THALHAMMER (1899, 1902), URSU & PÄRVU (1982).

New records: E. Carp. - CM - Sd., 26.05.1976; CM - VC, 24.05.1981, 1%; 24.05.1978, 1%; 22.05.1981 1&; 12.07.1982, 2 &&; 21.07.1982, 1%; Fr., 23.05.1981, 1&; C- Voiv, 7.05.1984, 1&; Southern R., - Cor. 11.03.1982, 1&; 2.04.1983, 1&; M - 10.08.1984, 1%; Dăbuleni (Dolj), 22.08.1986, 3%%, 1&; Buc., 3.09.1994, 2&&.

8. *Psilopa polita* (MACGUART 1835) (Fig. 1)

Previous records: STROBL (1897), THALHAMMER (1899, 1902), URSU & PÄRVU (1982).

New records: E. Carp. - CM - Sd., 16.08.1997, 1%, 25.05.1976, 1&; 28.05.1984, 1&; 9.08.1987, 1%, 1&; CM - Mold. r., 20.09.1975, 1&; 9.08.1987, 3%%, 2&&; 28.08.1992, 1 %; CM - PB, 3.09.1974, 1&; CM - VC, 25.05.1980, 1%, 1&; 27.10.1980, 1%; 22.10.1981, 1%; 28.04.1983, 1%; 21.05.1983, 1%, 2&&; 26.09.1988, 1%, 1&; CM - D, 8.10.1983, 1 %; 21.05.1983, 1%, 2&&; CM - Trei Movile, 11.10.1994, 1&; VP - PrM, 30.05.1981, 1%, 2&&; 28.05.1980, 1%, 2&&; Sol (Vârful Dorului), 27.06.1980, 2%%, 1&; C. Voiv., 7.05.1984, 1%, 2&&; Cal, 1400 m, 9.10.1987, 3&&; S. Carp - Simeria, 20.04.1978, 1&; Lugoj (Dumbrava), 7.10.1988, 1&; W. Carp - Ch. T., 30.05.1986, 1%; Southern R. - Cor., 8.10.1980, 2%%; 6-9.04.1981, 1%, 2&&; 22-30.03.1983, 2 %%, 1&; 7.04.1983, 2&&; 2.04.1984, 1&; 14.06.1984, 1%; Buc. 16.06.1986, 1%, 1&; 3-10.09.1994; 3%%, 5&&; 24-29.05.1995, 4%%, 1&; Mg - 20.07.1983, 1&.

9. *Trimerina madizans* (FALLÉN 1813)

Previous records: THALHAMMER (1899) as *nigella* (MEIGEN 1830), URSU & PÄRVU (1982)

New records: E. Carp - CM - VC, 12.07.1979, 1&; 22.08.1980, 1%; 26.09.1980, 1&; CM - MD, 7.08.1982, 1%; VP - I, 10.05.1982, 1&; 11.06.1984, 1%; VP - T, 10.08.1982, 1&; Southern R - M, 11.08.1984, 1&.

Subfam. Hydrellinae

Trib Atissini

10. *Atissa pygmaea* (HALIDAY 1833)

Previous record: URSU & PÄRVU (1982)

New records: E. Carp - VP - PrM, 26.05.1980, 1%, 1&; CM - VC, 28.04.1983, 1&.

Trib Hydrelliini

11. *Hydrellia albiceps* (MEIGEN 1830)

First record for R.: E. Carp - CM - VC, 22.08.1980, 1&; CM - Sd, 28.08.1992, 1&; Farcaşa (Neamt), 12.08.1985, 1&.

Distribution: This species are widespread in Europa, NE Tibet.

12. *Hydrellia albilabris* (MEIGEN 1830)

Previous record: URSU (1989)

New records: E. Carp., CM - D, 8.10.1983, 1&; CM - VC, 23.08.1996, 1&; Southern R. Buc., 19.05.1995, 1&.

Distribution: This species is distributed in N and Central Europe

13. *Hydrellia appendiculata* COLLIN 1966 (Fig. 2, 3)

First record for R.: E. Carp.: VP - PrM, 9.09.1980, 1%; 6.09.1984, 2%%; CM - VC, 31.05.1981, 1&; CM - sd, 8.06.1988, 1&; 28.08.1992, 2&&.

Distribution: This species was recorded from GB and H.

14. *Hydrellia argyrogenis* BECKER 1896

First records from R.: E. Carp.: CM - Mest., 15.09.1975, 1&; CM - D, 3.08.1980, 1&; 19.07.1983, 1%, 1&; CM - Sd, 3.07.1981, 1&; CM - VC, 29.08.1992, 1&; Southern R.: M, 12.08.1984, 1&.

Distribution: recorded from S and C E, Iran, Canarys.

15. *Hydrellia flaviceps* (MEIGEN 1830)

Firs record from R.: E. Carp.: CM - VC 20.09.1975, 1%.

Distribution: The species is widespread in N, C Europe and ES.

16. *Hydrellia griseola* (FALLÉN 1813)

Previous records: STROBL (1897), THALHAMMER (1899, 1902), URSU (1983)

New records: E. Carp - VP - I, 13.05.1971, 1&; 17.07.1974, 1&; 1.08.1980, 1%; 20.07.1983, 1&; VP - T, 18.07.1981, 1%; CM - Sd, 21.05.1975, 1&; 19.09.1975, 1&; 22.08.1980, 1&; 14.09.1986, 2%%, 5&&; CM - D, 21.05.1975, 2%%, 1&; 3.08.1975, 2%%; 17.05.1976, 2&&; 31.08.1992, 2%%, 2&&; CM - VC, 17.07.1975, 1%; 25.05.1976, 1%, 1&; 3.07.1976, 1&; 3.09.1976, 1%; 27.09.1976, 1&; Breaza (Suceava), 28.05.1975, 1%; Mestecăniş, 1200 m, 28.07.1975, 1&; Fr, 23.05.1981, 1&; Sol, 28.06.1984, 1&; Căl, 1800 m, 27.07.1976, 1&; 2.09.1992, 1%, 1&; S. Carp.: Lugoj (Dumbrava), 7.10.1988, 1&; Southern R.: Cor, 4.08.1980, 1&; 17.09.1991, 1&; Buc.: 16.07.1986, 1%, 1&; 8.09.1994, 1&; 18.09.1994, 1%; 29.04.1995, 1&; 19-25.05.1995, 3%%, 7&&.

17. *Hydrellia modesta* LOEW 1860 (Fig. 4)

Previous records: THALHAMMER (1899, 1902), URSU (1983).

New records: E. Carp.: CM - VC, 22.10.1981, 1%; CM - D, 19.07.1983, 1%.

18. *Hydrellia mutata* (ZETTERSTEDT 1846) (Fig. 5)

Previous records: URSU (1989)

New records: E. Carp.: CM - VC, 9.08.1975, 1&; 6.06.1976, 1&; 31.05.1981, 2&&; 10.07.1983, 3%%, 4 &&; 24.05.1984, 1&; 28.08.1992, 1%, 1&; VP - I, 20.06.1983, 1&; 6.09.1984, 1&; Southern R., Buc.: 18.09.1994, 1%.

19. *Hydrellia obscura* (MEIGEN 1830)

Previous records: THALHAMMER (1902), URSU (1989)
New records: E. Carp.: CM - VC, 22.10.1981, 2&&;
10.07.1983, 1%, 1&; CM - Sd, 8.06.1988, 1&; Southern
R.: Cor, 5.06.1981, 1&.

Trib Notiphilini

20. *Notiphila (Dichaeta) caudata* FALLÉN 1813

Previous records: STROBL (1897), THALHAMMER
(1899), URSU & PÄRVU (1982)
New records: E. Carp.: H, 19.07.1978, 1&; CM -
VC 10.07.1983, 1&; CM - Mold r, 28.08.1992, 1%;
Southern R.: Sn, 9.09.1976, 1&, 8.10.1976, 1&; Buc.,
25.04.1994, 1%, 24.05.1995, 1%.

**21. *Notiphila (Notiphila) annulipes* STENHAMMER
1844**

Previous records: THALHAMMER (1899)
New records: E. Carp.: CM - VC, 13.07.1978, 1&,
10.07.1983, 1%, &; Căl., 1800 m, 25.05.1983, 1&.

**22. *Notiphila (Notiphila) aquatica* BECKER 1896
(Fig. 6, 10)**

First record for R.: E. Carp.: CM - VC, 23.07.1976,
1&; Southern R.: Buc, 10.09.1994, 1%.

Distribution: This species is recorded from PL and
H.

23. *Notiphila (Notiphila) cinerea* FALLÉN 1813

Previous records: THALHAMMER (1899)
New records: E. Carp.: CM - VC., 12.07.1979, 1&,
10.07.1983, 1%, 5&&; VP - 1, 6.09.1984, 1%, 1&;
Southern R.: M, 14.08.1984, 1&; Buc, 3-18.09.1994,
3%%, 5&&; 24.05.1995, 2%%, 6&&.

24. *Notiphila (Notiphila) dorsata* STENHAMMER 1844

Previous records: THALHAMMER (1899)
New records: Southern R.: M, 22.08.1983, 3&&.

**25. *Notiphila (Notiphila) maculata* STENHAMMER
1844**

Previous records: THALHAMMER (1903)
New records: E. Carp.: CM - VC, 13.07.1978, 1%,
2&&, 12.07.1979, 4&&, 21.07.1982, 2&&, 10.07.1983,
3%%, 4&&; Mold - D, 15.07.1983, 1%, 1&; Southern
R.: Cor, 25.06.1987, 1%.

**26. *Notiphila (Notiphila) nigricornis* STENHAMMER
1844**

Previous records: THALHAMMER (1899), URSU &
PÄRVU (1982)
New records: E. Carp.: CM - VC, 21.07.1982, 2&&.

**27. *Notiphila (Notiphila) riparia* MEIGEN 1830 (Fig.
7, 11)**

Previous records: THALHAMMER (1899), URSU &
PÄRVU (1982)

New records: Southern R.: Cernica (Ilfov),

25.06.1987, 4%%, 2&&; Buc, 24.05.1995, 1&.

**28. *Notiphila (Notiphila) stagnicola* (ROBINEAU -
DESVOIDY 1830) (Fig. 8, 12, 13)**

Previous records: URSU & PÄRVU (1982)

New records: E. Carp.: CM - VC, 9.07.1975, 1%,
3&&, 19.09.1975, 2%%, 3&&, 12.07.1979, 1%; CM -
Sd, 17.05.1975; Căl, 1800 m, 21.08.1981, 1%,
25.05.1983, 1%; Southern R.: Mg, 22.08.1983, 1%.

**29. *Notiphila (Agrolimna) venusta* LOEW 1856 (Fig.
9, 14)**

Previous records: E. Carp.: H, 18.07.1978, 3%%,
2&&; CM - VC, 21.07.1982, 1%, 1&, 10.07.1983,
3%%, 2&&; W. Carp.: Ch - T, 30.05.1986, 2%%,
2&&; Southern R.: Cor, 23.05.1984, 2&&.

Subfam. Gymnomyzinae

Trib Gymnomyzini

**30. *Athyroglossa (Athyroglossa) glabra* (MEIGEN
1820)**

Previous records: STROBL (1897), THALHAMMER (1899,
1902), URSU & PÄRVU (1982)

New records: E. Carp.: CM - Mold r, 20.09.1975,
1%; CM - VC, 23.08.1976, 1&, 22.08.1980, 1%,
6.05.1984, 1&; CM - D, 19.05.1978, 1%, 28.05.1985,
1%; CM - PrM, 3.07.1981, 1&; CM - MD, 7.08.1982,
3%%, 2&&; CM - Sd, 6.06.1986, 1%, 1.08.1990, 1&;
Southern R.: Cor, 21.03.1983, 1&, 6.04.1984, 1%, 1&.

**31. *Athyroglossa (Parathyroglossa) ordinata*
BECKER 1896**

Previous records: E. Carp.: CM - VC, 28.08.1976,
1&, 21.04.1983, 1%; CM - D, 19.05.1978, 1&; CM -
Sd, 28.05.1984, 1&; Southern R.: Sn, 31.07.1976, 2%%;
Cor, 20.06.1980, 2&&, 6.04.1984, 1%, 14.07.1988, 1&;
Buc, 24.05.1995, 1&.

33. *Mozillus subsultans* (FABRICIUS 1794)

Previous records: THALHAMMER (1899), URSU &
PÄRVU (1982)

New records: E. Carp.: CM (town), 21.05.1975, 1%;
CM - MD, 7.05.1982, 2%%; CM - VC, 26.09.1988,
1%; Iacobeni (Suceava), 22.08.1977, 1&; Mold - D,
9.08.1982; Pojorâta (Suceava) 20.08.1974, 1%; VP -
T, 10.08.1982; W. Carp.: Ch - T, 30.05.1986, 1&.

Trib Hecamedini

34. *Allotrichoma laterale* (LOEW 1860)

Previous records: URSU (1989) as *impudicum* DUDA
1942.

New records: E. Carp.: CM - VC, 12.07.1982, 1&,
23.08.1996, 1%, 1&.

Observation: Two species of *Allotrichoma* could not
be identified with available keys. I note these species
with A and B.

35. *Allotrichoma* sp. A. (Fig. 15)
E. Carp.: CM - Sd, 29.08.1980, 1%.

36. *Allotrichoma* sp. B. (Fig. 16)
Southern R.: Cor, 5.08.1981, 1%, 27.08.1982, 1&.

37. *Hecamede albicans* (MEIGEN 1830)
Previous records: URSU & PÄRVU (1982)
New records: Southern R.: Mg, 25.08.1983, 5%
& M, 11.08.1984, 2%
& Buc, 10.09.1984, 1&.

Trib Discocerini

38. *Diclosiopa lacteipennis* (LOEW 1862)
Previous records: STROBL (1897), THALHAMMER (1899) as *xanthocera* LOEW (1869), URSU (1985)
New records: Southern R.: Buc, 21.10.1994, 1%, 1&.

39. *Diclosiopa niveipennis* (BECKER 1896)
Previous records: URSU (1985)
New records: Southern R.: Buc, 21.09.1994, 1&.

40. *Discocerina obscurella* (FALLÉN 1813)
Previous records: STROBL (1897), THALHAMMER (1899, 1902), URSU & PÄRVU (1982)
New records: E. Carp.: VP - I, 29.07.1975, 1&, 2.07.1981, 4%
& 2&& PV - PM, 14.07.1981, 1& CM - Sd, 16.08.1987, 1& CM - D, 31.08.1982, 1%
Mold - D, 18.07.1983, 1% S. Carp.: Simeria, 30.04.1978, 1& Southern R.: Sn, 31.07.1976, 1%
Cor, 11.06.1981, 1%, 5.08.1981, 1&, 6.04.1984, 1%
Buc, 3.09.1994, 1&, 24.05.1995, 1&.

41. *Ditrichophora aurifacies* (STROBL 1893)
Previous records: THALHAMMER (1892), URSU (1985).
New records: Southern R.: Cor, 10.06.1981, 1%, 5.08.1981, 2%.

42. *Ditrichophora ourivilli* (BECKER 1896)
Previous records: COGAN (1984)
New records: E. Carp.: CM - D, 1.09.1974, 1& 19.05.1988, 2%
& CM - Sd, 8.05.1985, 1%
CM - VC, 8.06.1987, 1& VP - C, 20.05.1978, 1& H - 19.07.1978, 1& SI - 10.09.1983, 1%
Sol, 28.06.1984, 1% C - El, 1700 m, 21.08.1981, 1& 17.08.1988, 2&& Palt, 20.05.1987, 2&&.

43. *Ditrichophora cinerella* (STENHAMMER 1844)
Previous records: THALHAMMER (1902)
New records: E. Carp.: VP-PM, 14.07.1981, 1%
VP - T, 18.07.1981, 1& CM - D, 7.08.1982, 1& Vaduri (Neamt), 11.08.1985, 1& Southern R.: Cor, 10-18.06.1981, 2%
& 1& 13.05.1983; 13.05.1983, 1%.

44. *Ditrichophora coxalis* (STROBL 1893)
First record for R.: E. Carp.: CM - D, 21.07.1975, 1&.
Distribution: This species is known from Austria only.

45. *Ditrichophora dimiatipennis* (STROBL 1893)

Previous records: STROBL (1897), THALHAMMER (1899)

New records: E. Carp.: VP - T, 18.07.1981, 1%, 10.08.1982, 1& VP - I, 28.05.1985, 1%.

Southern R.: Cor, 5.05.1981, 1&.

46. *Ditrichophora fuscella* (STENHAMMER 1844)
Previous records: E. Carp.: VP - I, 1.08.1980, 1%, 30.05.1981, 1&, 2.07.1981, 1&, 23.05.1983, 1%
VP - PrC, 1.07.1982, 1%
VP - PM, 14.07.1981, 1%
VP - T, 20.06.1988, 1& Palt, 20.05.1987, 1%, 1&.

47. *Polytrichophora duplosetosa* (BECKER 1896)
Previous records: COGAN (1984).
New records: E. Carp.: CM - Sd, 16.08.1987, 2%
& Southern R.: Cor, 27.06.1988, 1%
Buc, 3-6.09.1994, 2&&.

48. *Necamedoides glaucellus* (STENHAMMER 1844)
Previous records: STROBL (1897), THALHAMMER (1899), URSU (1985).
New records: E. Carp.: VP - I, 1.08.1980, 2&& CM - MD, 7.08.1982; CM - D, 12.07.1983; CM - Sd, 9-16.08.1987, 1%, 1& CM - Mold.r, 28.08.1992, 1%
Br., 8.06.1984, 1&.

Trib Ochtherini

49. *Ochthera mantis* (DEGEER 1776)
Previous records: NAGY (1977), URSU & PÄRVU (1982)
New records: E. Carp.: CM - PB, 9.08.1975, 1& 19.09.1975, 1%
Southern R.: J, 4.08.1976, 1& Buc, 18.09.1994, 1%.
Observations: Immature stages are described and biology is studied by SIMPSON (1975). The larvae are predators of larval Chironomidae.

Subfam. Ilytheinae Trib Ilytheini

50. *Ilythea spilota* (CURTIS 1832)
First records for R.: E. Carp.: CM - D, 17.08.1974, 1%, 31.08.1992, 1& CM - VC, 13 - 16.05.1985, 1%, 1& CM - Sd, 8.08.1987, 1& VP - I, 27.04.1983, 1%, 28.05.1985, 1%
Căl, 1700 m, 17.08.1988, 1%.
Distribution: The species is Holarctic in distribution, widespread in N and C Europe.

51. *Ilythea variipennis* (OLDENBERG 1923)
Previous records: OLDENBERG (1923), type locality: Băile Herculane (Hercules Bath).
New records: E. Carp.: CM - D, 19.05.1988, 1%.

Trib Hyadiini

52. *Axysta cesta* (HALIDAY 1833)
First record for R.: E. Carp.: VP - PrM, 2.05.1982, 1%.

53. *Hyadina guttata* (FALLÉN 1813)

Previous records: URSU & PÁRVU (1982)

New records: E. Carp.: CM - VC, 24.05.1978, 1%, 6.05.1984, 1%; CM - D, 26.05.1981, 1%; CM - Trei Movile, 11.09.1984, 2%%; VP - I, 1.08.1980, 1&, 14.08.1981, 1&, 30.10.1981, 1&, 6.09.1984, 1&; Mest, 18.07.1981, 1%; C - Voiv, 7.05.1984, 2&&; S Carp.: Lugoș - Dumbrava, 7.10.1988, 1&; Southern R.: Cor, 13.04.1981, 1%, 6.04.1984, 2%%, 23.05.1984, 1%.

54. *Hyadina humeralis* BECKER 1896

Previous records: URSU (1989)

New records: E. Carp.: VD (Rusca II), 18.05.1978, 1%; VP - PrM, 22.05.1978, 1%; H, 18.08.1978, 1%, &.

55. *Hyadina nitida* (MACQUART 1835)

Previous records: STROBL (1897), THALHAMMER (1899)

New records: E. Carp.: P - St, 7.08.1978, 1%; VP - I, 1.08.1980, 1%; CM - VC, 25.10.1980, 1&; CM - Mold. r., 9.08.1987, Br, 8.06.1984, 1&; Southern R.: Cor, 23.03.1983, 1%.

56. *Hyadina scutellata* (HALIDAY 1839)

Previous records: URSU (1989)

New records: E. Carp.: VP - I, 28.05.1981, 1%.

57. *Lytogaster abdominalis* (STENHAMMER 1844)

First record for R.: E. Carp.: CM - PB, 22.07.1976, 1%.

Distribution: This species is known from FS, D, PL and H.

58. *Pelina aenea* (FALLÉN 1813)

Previous records: STROBL (1897), THALHAMMER (1899).

New records: E. Carp.: VP - PM, 14.07.1981, 1%; C - Voiv, 7.05.1982, 1&; CM - VC, 6.05.1984, 1&; CM - D, 31.08.1992, 2%%, 2&&; Southern R.: Cor, 2.04.1981, 1&; 6.04.1984, 1&.

59. *Pelina aenescens* (STENHAMMER 1844)

New records: E. Carp.: VP - I, 20.05.1978, 1&; 6.09.1984, 1%; 18.05.1985, 1%; VP - PM, 14.07.1981, 1&; Mold - D, 15.07.1983, 1%, 1&; CM - VC, 6.06.1984, 1%.

60. *Pelina similis* PAPP 1974

Previous records: PAPP (1974).

New records: E. Carp.: CM - VC, 25.05.1981, 1%.

Trib Philygriini

61. *Nostima picta* (FALLÉN 1813)

Previous records: URSU & PÁRVU (1982).

New records: E. Carp.: CM - Mest, 15.09.1975, 1%; CM - VC, 11.10.1980, 1%, 3&&, 25.10.1980, 1&; 12.07.1981, 1&; 10.07.1983, 1%, 29.08.1992, 1&; CM - PrM, 3.07.1981, 1&; CM - Trei Movile, 11.10.1984,

1&; CM - D, 28.09.1988, 1&; Southern R.: Cor, 5-10.06.1981, 2%%; 22.06.1988, 2&&.

62. *Philygria flavipes* (FALLÉN 1813)

First record for R.: E. Carp.: CM - Mest, 7.08.1978, 1&; CM - D, 26.05.1983, 1&; CM - Mold. r., 28.08.1992, 1%.

Distribution: This species is widespread in N and C Europe.

63. *Philygria interrupta* (HALLIDAY 1833)

First record for R.: E. Carp.: VP - I, 23.05.1980, 1%.

Distribution: This species is recorded from GB, NL, A, F, CS.

64. *Philygria maculipennis* (ROBINEAU - DESVOIDY 1830)

Previous records: URSU & PÁRVU (1982) as *sexmaculata* BECKER 1896.

New records: E. Carp - Căl, 1500 m, 11.08.1977, 1&; CM - PrM, 3.08.1981, 1%; Il, 6.06.1988, 1&.

65. *Philygria nigricauda* (STENHAMMER 1844)

Previous records: URSU & PÁRVU (1982)

New records: E. Carp.: CM - Mold. r., 6.05.1979, 2&&; Il, 6.06.1988, 1&.

66. *Philygria posticata* MEIGEN 1830

First record for R.: Southern R.: Cor., 9.07.1982, 1%.

Distribution: N and C Europe.

Subfam. Ephydrinae

Trib Parydrini

67. *Parydra (Parydra) aquila* (FALLÉN 1813)

Previous records: STROBL (1897), THALHAMMER (1899, 1902)

New records: E. Carp.: CM - VC, 23.05.1981, 1%, 12.07.1981, 1%, 1&; CM - PrM, 3.07.1981, 1%; Southern R.: Buc, 3.09.1994, 1%.

Observation: The preimaginal stages and the biology was studied and described by KRIVOSHEINA (1987).

68. *Parydra (Parydra) coarctata* (FALLÉN 1813)

Previous records: THALHAMMER (1899, 1902), MÓCSAR (1952), URSU & PÁRVU (1982)

New records: E. Carp.: CM - town, 21.05.1975, 2&&, 22.10.1981, 2%%, 13.07.1978, 2&&, 22.08.1980, 2&&, 22.10.1981, 2%%, 21.07.1982, 1&, 10.06.1983, 2&&, 20.07.1983, 1%; CM - D, 31.08.1992, 1&; Mold - D, 11.08.1977, 2&&; H, 18.06.1978, 3%%, 2&&; P - St, 7.08.1978, 2&&; VP - T, 27.07.1990, 1&.

69. *Parydra (Parydra) fossarum* (HALIDAY 1833)

Previous records: THALHAMMER (1899, 1902)

New records: E. Carp.: CM - PB, 9.08.1975, 1%, 4&&, 19.09.1975, 1%, 4&&, 25.05.1976, 1%, 6.06.1976, 1%; CM - VC, 13.07.1978, 1%, 25.05.1981, 1%, 13.06.1986, 1%, 8.06.1988, 1%; Coșna - Teșna,

1.07.1977, 1%.

70. *Parydra (Parydra) hecate* (HALIDAY 1833)

Previous records: URSU & PÄRVU (1982)

New records: Southern R.: Cor, 17.07.1984, 2%%, 10.07.1985, 1%, 27.06.1988, 1%; Buc, 18.09.1994, 1&, 24.05.1995, 1%; E. Carp.: CM - DR, 29.08.1974, 1%; H, 19.07.1978, 2%%.

71. *Parydra (Parydra) nigratarsis* STROBL 1893

First records for R.: E. Carp.: Căl, 1700 m, 30.06.1976, 1%, 1&, 25.05.1983, 3%%; VP - T, 2.07.1978, 1&.

Distribution: A, GB, FS.

72. *Parydra (Parydra) nubecula* BECKER 1896

Previous records: URSU (1985)

New records: E. Carp.: CM - Sd, 8.05.1985, 1%, 1.08.1990, 1%; CM - D, 31.08.1992, 1%.

73. *Parydra (Parydra) quadripunctata* (MEIGEN 1839)

Previous records: STROBL (1897), THALHAMMER (1899, 1902), URSU (1985)

New records: E. Carp.: CM - VC, 20.09.1975, 1%, 13.07.1976, 1&, 25.10.1980, 1&, 22.09.1981, 1&, 28.09.1983, 1&; CM - Sd, 20.09.1978, 1&, 17.09.1986, 1&; CM - D, 28.09.1988, 1%, 31.08.1992, 2%%, 2&&; CM - Mold. r, 28.08.1992, 1&, VP - I, 25.06.1980, 1%; VP - T, 18.16.1981, 1%, 1&, 30.08.1982, 1&, 27.07.1990, 1&; V - D (Rusca II), 18.05.1978, 1%; S - Carp.: BH, 28.07.1978, 1%, 1&, 4-8.09.1978, 2&&.

74. *Parydra (Parydra) quinquemaculata* BECKER 1896

First records for R.: E. Carp.: CM - Mest, 15.09.1975, 1&; CM - Sd, 26.09.1978, 1%, 14.08.1987, 1%; CM - VC, 30.07.1985, 1%, 29.08.1982, 1%, 1&; CM - D, 19.05.1988, 1%, 31.08.1992, 1&.

Distribution: This species was recorded from D, CS and PL.

75. *Parydra (Chaetoapnaea) pusilla* (MEIGEN 1830) (Fig. 17)

Previous records: THALHAMMER (1899), URSU (1985)

New records: E. Carp.: CM - DR, 15.09.1975, 1%; CM - VC, 22.10.1981, 2%%, 10.07.1983, 2%%, 1&, 29.08.1992, 2%%; CM - Sd, 21.09.1987, 1&; C - Voiv, 27.06.1984, 1%; W. Carp.: Ch - T, 30.05.1986, 2%%.

Trib Ephydrini

76. *Coenia curvicauda* (MEIGEN 1830) (Fig. 18)

First record for R.: E. Carp.: VP - I, 28.09.1978, 1&, 1.08.1980, 2&&, 27.06.1983, 1%, 6.09.1984, 1&; VP - T, 10.08.1982, 1&; Mold - D, 15.07.1983, 1&; CM - V. Caselor, 1.06.1988, 1%.

Distribution: Holarctic.

77. *Coenia palustris* (FALLÉN 1823)

Previous records: URSU (1989)

New records: E. Carp.: CM - PB, 6.06.1976, 1&; Southern R.: Cor, 19.03.1982, 1&; 14.06.1984, 1&, 22.06.1985, 1&; Buc, 27.05.1995, 1%.

78. *Ephydra riparia* FALLÉN 1813

Previous records: THALHAMMER (1899), URSU (1985)

New records: Southern R.: M, 6.08.1984, 1%.

79. *Paracoenia fumosa* (STENHAMMER 1844)

Previous records: URSU & PÄRVU (1982)

New records: E. Carp.: CM - VC, 22.10.1981, 1%, 9.05.1982, 1%; Southern R.: M, 6.08.1984, 1%.

Trib Scatellini

80. *Lamproscatella bimaculata* HENDEL 1933

First record for R.: E. Carp.: CM - Mest, 15.09.1975, 1%; Căl (1700 m), 25.05.1983, 1&; Southern R.: Buc, 12.05.1997, 1%.

81. *Linnellia fallax* (CZERNY 1903)

First records for R.: E. Carp.: VP - I, 8.06.1976, 1%, 20.05.1982, 1%.

Distribution: A, H, GB and FS.

82. *Linnellia quadrata* (FALLÉN 1813)

Previous records: URSU & PÄRVU (1982)

New records: E. Carp.: Căl (1500 m), 11.08.1977, 1%; Căl (1700 m), 25.05.1983, 1&; P - St, 7.08.1978, 1%; VP - I, 22.06.1985, 1%; W. Carp.: Ch - T, 30.05.1986, 1%; Southern R.: Cor, 6.07.1978, 1&.

83. *Linnellia stenhammeri* (ZETTERSTEDT 1846)

First record for R.: E. Carp.: CM - Bodea (800 m), 5.07.1976, 1%.

Distribution: Holarctic. In Europe was recorded from FS, H, GB?

84. *Scatella (Scatella) paludum* (MEIGEN 1830)

Previous records: STROBL (1897), THALHAMMER (1899, 1902) as *sorbillans* HALIDAY 1839, URSU (1989).

New records: E. Carp.: CM - VC, 17.08.1974, 1%, 3&&, 23.05.1981, 1%, 22.10.1981, 1&; CM - PB, 25.05.1976, 1&; CM - MD, 7.08.1982, 1%; Căl (1700 m), 27.08.1976, 2&&, 25.05.1983, 1%; S. Carp.: Simeria, 20.04.1978, 1%.

85. *Scatella (Scatella) stagnalis* (FALLÉN 1813)

Previous records: STROBL (1897), THALHAMMER (1899, 1902), URSU (1989)

New records: E. Carp.: CM - PB, 25.05.1975, 1%, 1%, 9.08.1975, 1%, 3&&, 6.06.1976, 1%; CM - VC, 23.08.1976, 1&, 16.06.1978, 2%%, 26.09.1978, 1&, 8.05.1979, 1&, 27.05.1980, 1%, 1&, 22.08.1980, 2%, 2&&, 25.10.1980, 2%, 2&&, 23.05.1981, 4&&; CM - town, 31.05.1988, 2&&; CM - Mold. r, 29.10.1975, 2%%, 1& 9.08.1987, 1&, 28.08.1988, 1&, 28.08.1992, 1%; Căl (1700 m) 30.07.1976, 1&, 27.08.1976, 2&&.

Coşna - Teşna, 1.07.1977, 1%; H, 18.07.1978, 2%%, 1&; P - St, 7.08.1978, 2%%; Fr, 23.05.1981, 1%; VP - PM, 14.07.1981, 1%; VP - I, 25.07.1985, 1%; S. Carp.: Retezat (1500 m), 9.07.1979, 1&; Southern R.: Cor, 20.06.1980, 1&, 4.07.1980, 1%, 6.04.1984, 1%, 1&, 20.04.1985, 1&, 22.06.1988, 1&; Mg, 22.08.1983, 1%; M, 12.08.1984, 2&&; Buc, 16.07.1986, 1&; 3-10.09.1994, 3%%, 2&&; 18.09.1994, 1&, 24.05.1995, 1&, 12.05.1997, 2%%, 2&&.

Observation: The geographic variation of this species was studied by SCHEIRIG (1977).

86. *Scatella (Scatella) tenuicosta* COLLIN 1930

Previous records: URSU (1989).

New records: Southern R.: M, 12.08.1984, 1%.

87. *Scatella (Neoscatella) silacea* LOEW 1860

Previous records: STROBL (1897), THALHAMMER (1899)

New records: E. Carp.: CM - D, 20.09.1975, 1&; CM - VC, 23.05.1981, 2%%, 23.10.1981, 1&, 10.07.1983, 1&; VD (Rusca II), 18.05.1978, 1%; Fr, 23.05.1981, 1&; SI, 28.05.1981, 1&; Căl (1700 m), 30.06.1976, 1&; Southern R.: Buc, 10.09.1994, 1%, 2&&; 29.04.1995, 3&&, 12.05.1997, 1%.

88. *Scatophila flavitarsis* (ZETTERSTEDT 1846)

First records for R.: E. Carp.: P - St, 7.08.1978, 1&; W. Carp.: Ch - T, 30.05.1986, 1&.

Distribution: N and C Europe.

REFERENCES

- ANDERSEN H. 1971. The European species of *Limmellia* (Dipt., Ephydriidae). Entomol. Scand., 2: 53-59.
- ARDÓ P. 1957. Studies in the marine shore dune ecosystems with special reference to the dipterans fauna. Opusc. entomol. Suppl. 14: 1-255.
- BECKER T. 1896. Dipterologische Studien. IV. Ephydriidae. Berl. Entomol. Z., 41: 91-276.
- BECKER T. 1926. In: LINDNER E (Ed.) Die Fliegen der palaarktischen Region. 6(1): 1-115.
- BUJOR P. 1900. Contribution B l'étude des lacs salés de Roumanie. Ann. Sci. Univ. Jassy, 1, 2, 3.
- COGAN B. H. 1984. Fam. Ephydriidae, pp.: 126-146, In: Catalogue of Palaearctic Diptera, 10, Budapest.
- COLLIN J. E. 1930. Some new species of the Dipterous genus *Scatella* Dsv. and the differentiation of *Stictoscatella* gen. nov. (Ephydriidae). Entomol. month Mag. 66.
- COLLIN J. E. 1942. On the generic characters of *Psilopa* FLN. and the correct identity of *Discocerina pulicaria* HAL. (Dipt.: Ephydriidae). Entomol. month. Mag., 78.
- COLLIN J. E. 1943. The British species of *Psilopa* FLN. and *Discocerina* MEG. (Dipt.: Ephydriidae). Entomol. month. Mag. 79.
- COLLIN N. C. 1975. Population biology of a brine fly (Diptera: Ephydriidae) in the presence of abundant algal food. Ecol., 56: 1139-1148.
- CRESSON E. T. Jr. 1942-1949. Synopsis of North American Ephydriinae (Diptera). Trans. Am. entomol. Soc., 68: 101-128, 70: 159-180, 72: 227-240, 74: 225-260.
- DAHL R. G. 1959. Studies on Scandinavian Ephydriidae (Dipt.: Brachycera). Opusc. entomol. Suppl., 15: 1-225.
- DAHL R. G. 1964. Revision an släktet *Hydrella* R. D. (Dipt.: Ephydriidae) in coll. STENHAMMER och ZETTERSTEDT. Opusc. entomol. 24(3): 179-187.
- DEONIER D. L. 1965. Ecological observations on Iowa shore flies (Dipt.: Ephydriidae). Iowa Acad. Sci., 71: 496-510.
- DEONIER D. L. 1971. A systematic and ecological study of Nearctic *Hydrellia* (Dipt.: Ephydriidae). Smithson. Contr. Zool., 68: 1-171.
- FOOTE B. A. 1977. Utilization of blue-green algae by larvae of shore-flies. Environ. entomol., 6: 812-814.
- FOOTE B. A. 1981a. Biology and immature stages of *Lytogaster excavata*, a grazer of blue-green algae (Dipt.: Ephydriidae). Proc. entomol. Soc. Washington, 83: 304-315.
- FOOTE B. A. 1981b. Biology and immature stages of *Pelina truncatula*, a consumer of blue-green algae (Dipt.: Ephydriidae). Proc. entomol. Soc. Washington, 83: 607-619.
- FOOTE B. A. & EASTIN W. 1974. Biology and immature stages of *Discocerina obscurella*, (Dipt.: Ephydriidae). Proc. entomol. Soc. Washington, 76: 401-408.
- GÁLDEAN N. 1976. Observations on larvae and pupae of the species *Ephydra californica* PACK. (Diptera) from Lacu Sărat (Brăila). Trav. Mus. Hist. Nat. "G. Antipa", 17: 115-124.
- HALIDAY A. H. 1939. Remarks on the generic distribution of the British Hydromyzidae (Diptera). Ann Nat. Hist. 3: 217-224.
- KRIVOSHEINA M. G. 1986. Revision of Palaearctic species of the brine flies from the genus *Dichaeta* (Diptera: Ephydriidae). Zool. zh. 65(5): 809-813.
- KRIVOSHEINA M. G. 1987. To the biology of *Parydra aquila* FLL. (Diptera: Ephydriidae). Entomol. Obozr. 64(3): 540-543.
- KRIVOSHEINA M. G. 1988. Morphology of the preimaginal stages of *Brachydentera ibari* NINOMYA and *Cnestrum lepidopes* BECKER (Diptera: Ephydriidae). Bril. Mosk. o-va ispitately prirody otd. biol. 93 (3): 49-54.
- KRIVOSHEINA M. G. 1989. A review of the Ephydriid flies of the genus *Parydra* STEPH. (Diptera: Ephydriidae) of the fauna of the USSR. Entomol. Obozr., 68(1): 209-219.
- LOEW H. 1860. Neue Beiträge zur Kenntniss de Dipteren. Die Europäischen Ephydriidae und die deselben. Siebenter Beitrag. Progr. der Königl. Realschule zu Mescritz: 1-46.
- MATHIS W. N. 1975. A systematic study of *Coenia* and *Paracoenia* (Diptera: Ephydriidae). Great Bas. Nat. 35(1): 65-85.

- MATHIS W. N. 1978. A revision of the Nearctic species of *Limnellia* MALLOCH (Diptera: Ephydriidae). Proc. biol. Soc. Wash. 6(1): 250-293.
- MATHIS W. N. 1979a. Studies of Notiphilinae (Diptera: Ephydriidae). I. Revision of the Nearctic species of *Notiphila* FALL., excluding the *caudata* group. Smith. contrib. Zool. 285: 1-111.
- MATHIS W. N. 1979b. Studies of Ephydrinae (Diptera: Ephydriidae). II. Phylogeny, classification and zoogeography of Nearctic *Lamproscatella* HENDEL. Smith. contrib. Zool. 287: 1-41.
- MATHIS W. N. & SHEWELL G. E. 1978. Studies of Ephydrinae (Diptera: Ephydriidae). I. Revisions of *Parascatella* CRESSON and the *trisetata* group of *Scatella* ROBINEAU-DESVOIDY. Smith. contrib. Zool. 285: 1-44.
- MOCZÁR M. 1952. Beiträge zur Kenntnis der Insektenfauna von Kudsir-Hochgebirges (M-tii. Sebesului). Folia entomol. hung. (s. nova), 5(1-8): 129-140.
- NAGY C. C. 1977. Studii asupra muștelor acaliptrate din Delta Dunării (Diptera: Muscidae: Acaliptratae). Peuce: 33-35.
- NARCHUK E. P. 1970. Sem. Ephydrinae - beregovushki In: Oprod. nasek. Evrop. C. SSSR. 5(2): 363-388.
- PAPP. L. 1975. Ephydriidae pp.: 1-128, In: Fauna Hungariae, XV, Dipt. II, Budapest.
- PAPP. L. 1979. A contribution to the revision of the Palearctic Ephydriidae (Diptera) Folia entomol. hung. 32(1): 97-104.
- SCHERIG J. F. 1977. Geographic variation in *Scatella stagnalis* (Diptera: Ephydriidae). Ann. entomol. Amer., 70(4): 511-523.
- SCHERIG J. F. & FOOTE B. A. 1973. Habitat distribution of the shore flies of northeastern Ohio (Diptera: Ephydriidae). Ohio J. Sci.: 73: 152-166.
- SIMPSON K. W. 1975. Biology and immature stages of three species of Nearctic *Ochtera* (Diptera: Ephydriidae). Proc. entomol. Soc. Wash., 77(1): 129-155.
- SIMPSON K. W. 1976a. The mature larvae and puparia of *Ephydra (Halephadra) cinerea* JONES and *Ephydra (Hydropyrus) hians* SAY (Diptera: Ephydriidae). Proc. entomol. Soc. Wash., 78(3): 263-269.
- SIMPSON K. W. 1976b. Shore flies and brine flies (Diptera: Ephydriidae). pp.: 465-495. In CHENG L. (Ed.) Marine Insects, North. Holl. Publ. Comp. Amsterdam-Oxford.
- STROBL G. 1897. Siebenbürgische Zweiflügler. Verh. Mitt. siebenb. Ver. Naturw. Hermannstadt, 46: 11-48.
- THALHAMMER J. 1899. Ordo Diptera, pp.: 5-76., in: Fauna Regni Hungariae, Budapest.
- THALHAMMER J. 1902. Quaedam de fauna dipterologica Transsylvaniae. A Jésum - társasági Kalocsai érseki Főgimnásium Negyvenkettedik Ertditője: 3-25.
- ȚUCULESCU I. 1965. Biodinamica lacului Techirgiol. Ed. Acad., București.
- URSU A. 1983. Contribuție la cunoașterea unor specii din genul *Hydrellia* R.-D. (Diptera: Ephydriidae). Lucr. III Conf. Entomol. Iași.
- URSU A. 1985. Nouvelle contribution B la connaissance des Ephydrides (Diptera: Ephydriidae) de la faune de Roumanie. Trav. Mus. Hist. Nat. "G. Antipa", 27: 165-171.
- URSU A. 1989. New ephydrids (Diptera: Ephydriidae) in the Romanian's fauna. Stud. cercet. biol. ser. Biol. anim., 41(1): 3-5.
- URSU A. & PÂRVU C. 1982. Contribuții la cunoașterea ephydriidelor (Diptera: Ephydriidae) din România. Stud. cercet. biol. ser. Biol. anim., 34(1): 22-24.
- WIRTH W. W. 1971. The brine flies of the genus *Ephydra* in North America (Diptera: Ephydriidae). Ann. Entomol. Soc. Amer., 64(2): 357-377.
- WIRTH W. W. 1975. A revision of the brine flies of the genus *Ephydra* of the Old World (Diptera: Ephydriidae). Entomol. scand., 6(1): 11-44.
- WIRTH W. W., MATHIS W. N., VOCKEROTH J. R. 1987. Ephydriidae, pp.: 1027-1047, in: Manual of Nearctic Diptera, 2, Ottawa.
- ZATWARNICKI T. 1992. A new classification of Ephydriidae based on phylogenetic reconstruction (Diptera: Cyclorrhapha) genus, 3(2): 65-119.

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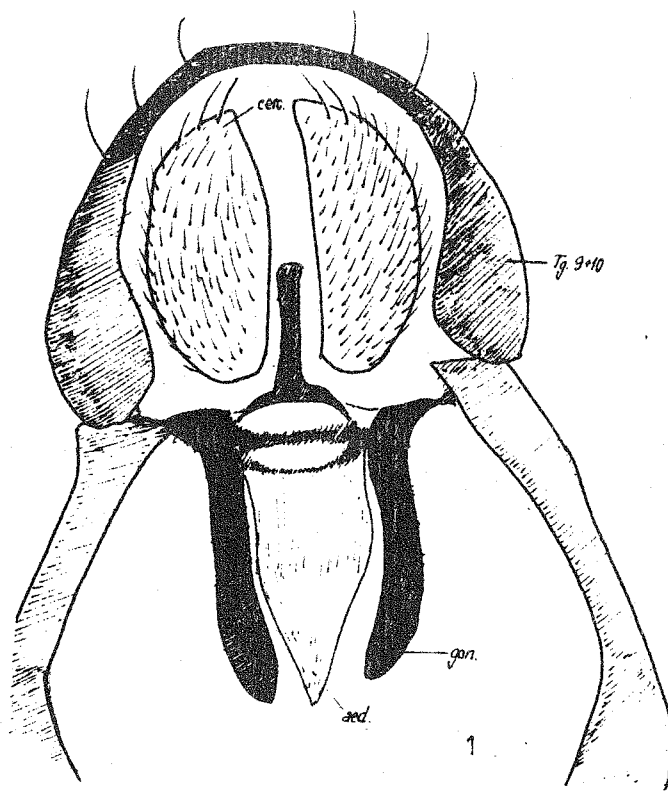


Fig. 1. *Psilopa polita*. Male genitalia (ventral aspect); aed. - aedeagus; cerc. - cerci; gon. - gonite; Tg. 9+10 - tergite 9+10. (Orig.)

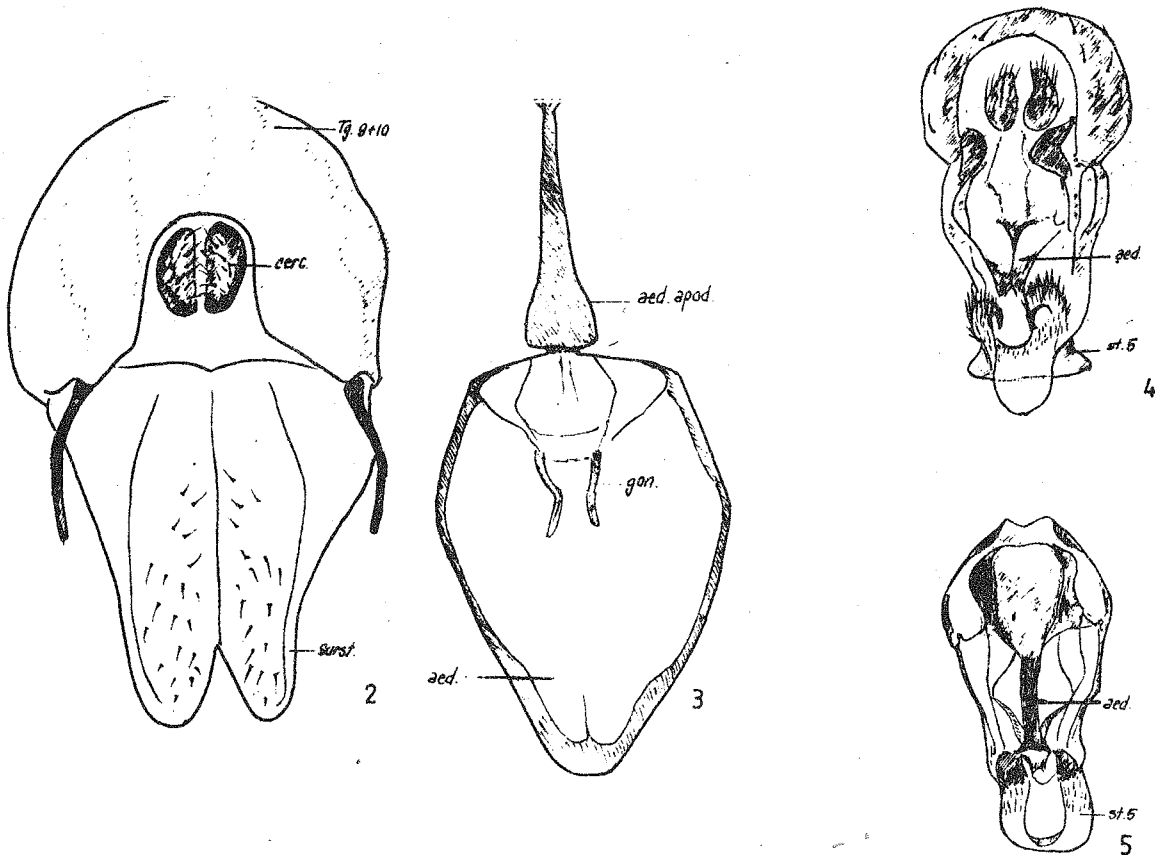


Fig. 2-5. Male genitalia in *Hydraecia appendiculata*. cerc. - cerci; surst. - surstili; Tg. 9+10 - tergite IX+X; (fig. 2); aed. - aedeagus; aed. apod. - aedeagi apodeme (fig. 3). Male genitalia (ventral aspect) of the *Hydraecia modesta* (Fig. 4) and *H. mutata*: st. 5 - sternit V (fig. 5) (Orig.).

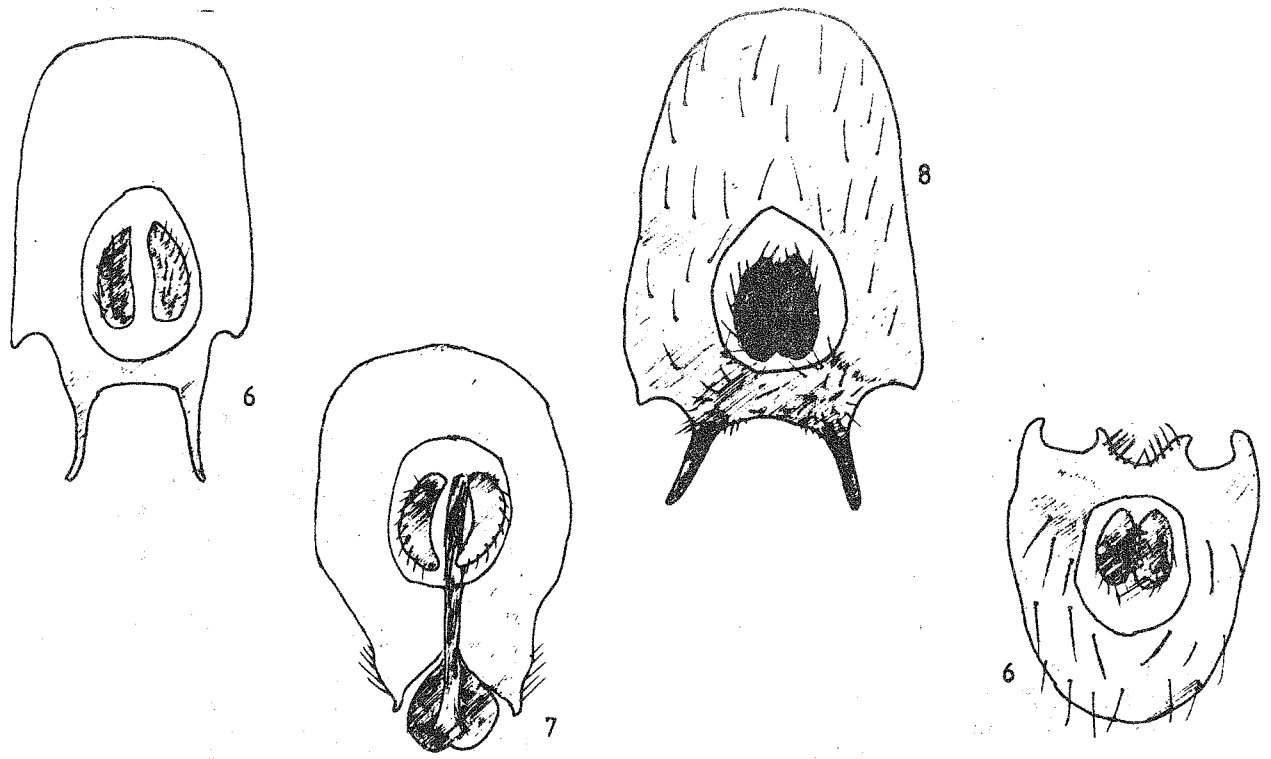


Fig. 6-9. Epandrium, cerci, epandrial processes in *Notiphila aquatica* (Fig. 6), *N. riparia* (Fig. 7), *N. stagnicola* (Fig. 8), and *N. venusta* (Fig. 9) (Orig.).

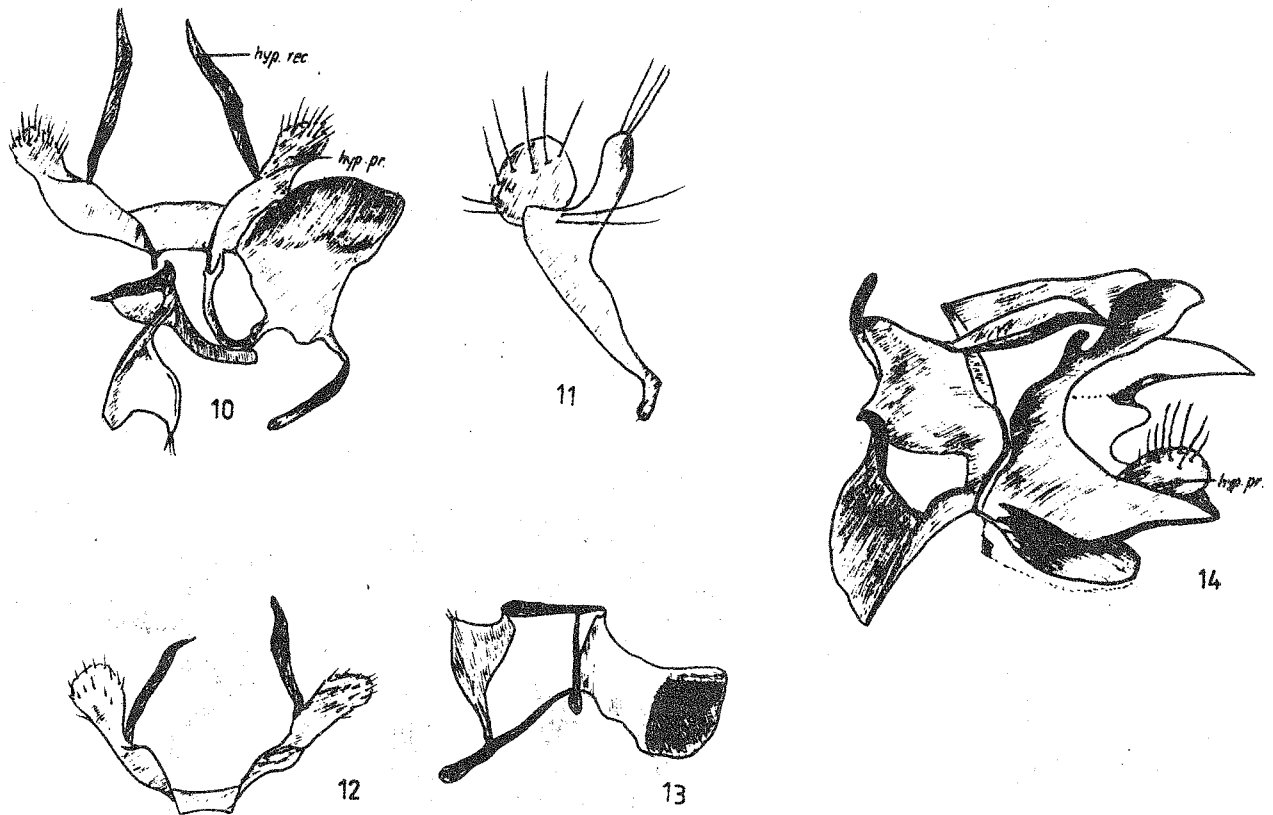
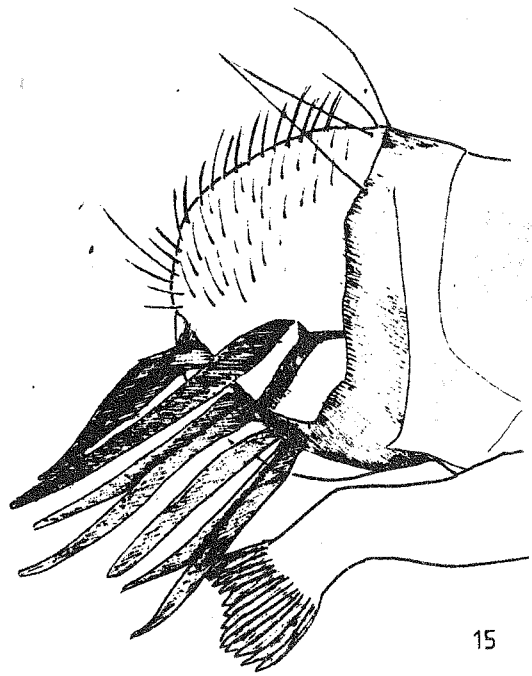
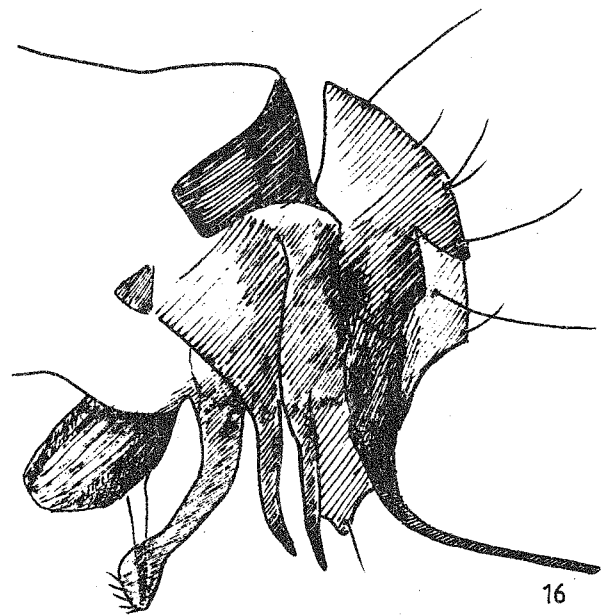


Fig. 10-14. Internal male genitalia (lateral aspect) in *Notiphila aquatica* (Fig. 10), *N. stagnicola* (fig. 13) and *N. venusta* (Fig. 14). Hypandrial process (hyp. pr.) and hypandrial receptacle (hyp. rec.) in *N. riparia* (Fig. 11) and *N. stagnicola* (fig. 12) (Orig.)

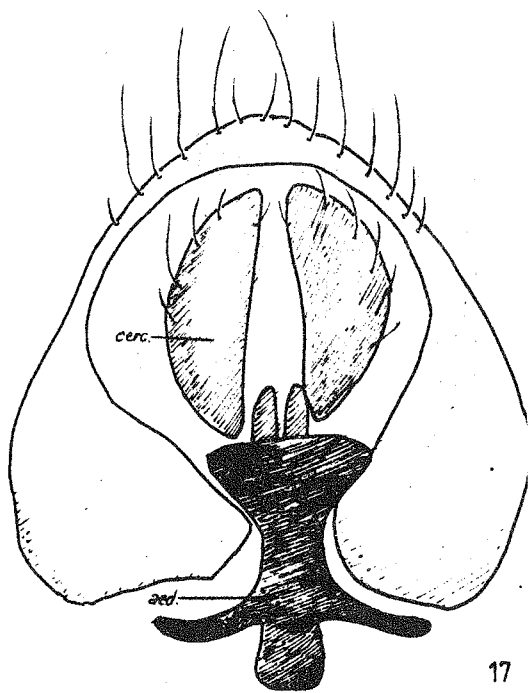


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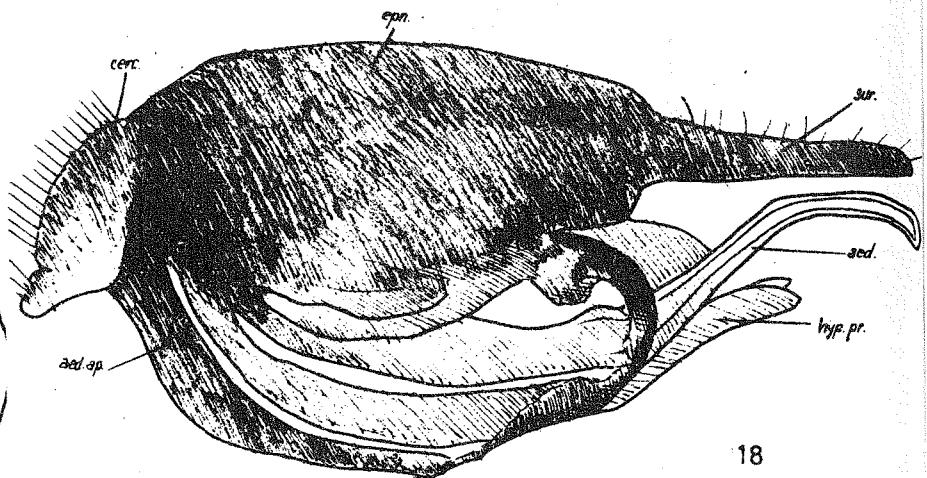


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Fig. 15-16. Male genitalia (lateral aspect) in *Allotrichoma* sp. A (Fig. 15) and *A.* sp B. (Fig. 16) (Orig.).



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Fig. 17-18. *Parydra pusilla* - Male genitalia (ventral aspect); aed. - aedoeagus; cerc. - cerci (fig. 17); *Coenia curvicauda* - Male genitalia (lateral aspect); aed. - aedoeagus; aed. ap. - aedoeagal apodema; cerc. - cerci; epn. - epandrium; hyp. pr. - hypandrial process; sur. - surstylus (fig. 18) (Orig.).