

Faunistic notes on the Aphidiidae of Bulgaria

(Hymenoptera, Aphididae)

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This work deals with the elaboration of aphid parasites collected and reared by Prof. Dr. U. Sedlag and by the author in Bulgaria. The material was obtained in Rila Mountain— Δ Mussala, Varna lake, "Stalin Dam", Borovets, env. of Rilski Manastir (Prof. Sedlag) and in Black sea coast zone (Bourgas, Nesseber, Varna), southern Dobrudja (Balchik), eastern Stara Planina (Δ Bulgarka) (author), in summer 1961 so that the composition of species corresponds to this period of year. All species quoted in this paper are new for the fauna of Bulgaria.

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Ephedrus campestris Starý

Localities: Zlatni Pjasacy (bred from *Dactynotus sonchi* on *Sonchus arvensis*, edge of a vineyard). — Ditto (bred from *Dactynotus sonchi* on *Sonchus oleraceus*, waste place near a vineyard). — Nesseber (bred from *Dactynotus cichorii* on *Crepis* cf. *setosa*, sea coast, sands).

Habitats: Steppes, xerothermic waste places, sea coast sands.

Hosts: *Dactynotus cichorii* (Koch) on *Crepis* cf. *setosa* Hall; *Dactynotus sonchi* (L.), on *Sonchus arvensis* L., *Sonchus oleraceus* L.

Host-specificity, geographic distribution: Oligophagous. Typical parasite of *Macrosiphoniella*, *Dactynotus* and *Uromelan* species. Described originally from Czechoslovakia, distributed probably all over the Europe, particularly common in steppe zone.

Ephedrus plagiator (Nees)

Localities: "Stalin dam" (on *Pinus*).

Host-specificity, geographic distribution: Widely polyphagous. Distributed all over the Europe, occurring particularly in forest-type habitats.

Praon dorsale (Haliday)

Localities: Zlatni Pjasacy (bred from *Dactynotus sonchi* on *Sonchus oleraceus*, steppe). — Nesseber (bred from *Dactynotus cichorii* on *Crepis* cf. *setosa*, sea coast

sands). — Ditto (bred from *Dactynotus cichorii* on *Cichorium intybus*, roadside). — Ditto (bred from *Dactynotus sonchi* on *Sonchus* sp., xerothermic waste place, roadside).

Habitats: Steppe, sea coast sands, xerothermic waste places.

Hosts: *Dactynotus cichorii* (Koch), on *Crepis* cf. *setosa* Hall, *Cichorium intybus* L.; *Dactynotus sonchi* (L.), on *Sonchus oleraceus* L., *Sonchus* sp.

Host-specificity, geographic distribution: Oligophagous, *Dactynotus* and *Uromelan* species being its main hosts. Typical species of steppe habitats, widely distributed all over the Europe.

***Praon* spp.**

Localities: Bourgas (bred from *Aphis* sp. on *Xanthium spinosum*, waste place, sea coast). — Ditto (bred from *Macrosiphum solanifolii* on *Ecbalium elaterium*, waste place, sea coast). — Zlatni Pjasacy (bred from *Hyalopterus* sp. on *Amygdalus* sp., shrubs).

Hosts: *Aphis* sp., on *Xanthium spinosum* L.; *Hyalopterus* sp., on *Amygdalus* sp.; *Macrosiphum solanifolii* (Ashm.), on *Ecbalium elaterium* (L.) Rich.

***Pauesia picta* (Haliday)**

Localities: Varna lake (bred from ? *Cinara pini*).

Habitats: Xerothermic slopes, pine forest.

Hosts: ? *Cinara pini* L.

Host-specificity, geographic distribution: Oligophagous. Typical parasite of lachnids on conifers. Distributed all over the Europe, occurring in coniferous forests both in lowlands and in mountains.

***Pauesia unilachni* (Gahan) (= *P. praevisa* G. and B.)**

Localities: Varna lake (bred from *Schizolachnus* sp.). — Borovets (bred from *Schizolachnus pineti*).

Habitats: Coniferous forests, in mountains.

Hosts: *Schizolachnus* sp., on *Pinus* sp.; *Schizolachnus pineti* (F.), on *Pinus* sp.

Host-specificity, geographic distribution: Probably monophagous on *Schizolachnus*. Common all over the Europe in coniferous and mixed forests in lowlands and in mountains. Distributed probably throughout the Palearctic region in corresponding type of habitats.

***Aphidius funebris* Mackauer**

Localities: Zlatni Pjasacy (bred from *Dactynotus sonchi* on *Sonchus arvensis*, waste place — edge of a vineyard). — Ditto (bred from *Dactynotus sonchi* on *Sonchus oleraceus*, edge of a vineyard). — Nesseber (bred from *Dactynotus cichorii* on *Crepis* cf. *setosa*, sea coast sands). — Sliven — env.) bred from *Uromelan jaceae* on *Centaurea* sp., steppe).

Habitats: Steppe, xerothermic waste places, sea coast sands.

Hosts: *Dactynotus cichorii* (Koch), on *Crepis* cf. *setosa* Hall.; *Dactynotus sonchi* (L.), on *Sonchus arvensis* L., *Sonchus oleraceus* L.; *Uromelan jaceae* (L.), on *Centaurea* sp.

Host-specificity, geographic distribution: Oligo-

phagous parasite of *Dactynotus* and *Uromelan*-species. Distributed all over the Europe and N. Africa, occurring commonly in steppe zone.

Lysiphlebus arvicola Starý

Localities: Bourgas (bred from *Rungia maydis* on *Cynodon* sp., waste place, sea coast sands).

Habitats: Sea coast sand, waste places.

Hosts: *Rungia maydis* (Pass.), on *Cynodon* sp.

Host-specificity, geographic distribution: Typical parasite of *Rungia maydis*, distributed from Europe to Central Asia, occurring in steppe zone.

Lysiphlebus dissolutus (Nees) Förster 1862

Localities: Δ Mussala (alpine meadows with *Pinus mugo* and *Juniperus nana*, about 2300 m above sea level).

Habitats: Alpine meadows with *Pinus mugo* and *Juniperus nana*.

Host: Unknown.

Host-specificity, geographic distribution: Probably oligophagous. Distributed all over the Europe, occurring in forest habitats (glades, undergrowth), particularly in mountains.

Lysiphlebus fabarum (Marshall)

Localities: Balchik (bred from *Brachycaudus cardui* on *Carduus* sp., steppe, 23 ♀♀, 8 ♂♂). — Bourgas (bred from *Aphis* sp. on *Amaranthus* sp., waste place, sea coast sands, 13 ♀♀, 9 ♂♂). — Ditto (bred from *Aphis* cf. *gossypii* on *Chenopodium album*, waste place, sea coast sands, 1 ♂). — Ditto (bred from *Aphis fabae* on *Cirsium vulgare*, waste place, sea coast sands, 7 ♀♀, 7 ♂♂). — Δ Bulgarka, Sliven — env. (bred from *Brachycaudus cardui* on *Cirsium* sp., submountain steppe, 11 ♀♀, 2 ♂♂).

Habitats: Steppe, xerothermic waste places, sea coast sands.

Hosts: *Aphis fabae* Scop., on *Cirsium vulgare* Airy-Shaw.; *Aphis* cf. *gossypii* Glov., on *Chenopodium album* L.; *Aphis* sp., on *Amaranthus* sp.; *Brachycaudus cardui* (L.), on *Carduus* sp., *Cirsium* sp.

Host-specificity, geographic distribution: Widely polyphagous, distributed from Europe to Central Asia. One of the commonest species, occurring particularly in steppe zone habitats. Deuterotokous.

Lysiphlebus laticephalus (Telenga)

Localities: Nesseber (bred from *Chaitophorus* sp. on *Populus* sp., forest belts, sea coast sands).

Habitats: Forest belts, sea coast sands.

Hosts: *Chaitophorus* sp., *Populus* sp.

Host-specificity, geographic distribution: Oligophagous. Typical parasite of *Chaitophorus*-species, distributed from Europe to Central Asia.

Trioxyys sp.

Localities: Nesseber (bred from *Pergandeida robintae* on *Robinia pseudo-acacia*). — Zlatni Pjasacy (bred from *Pergandeida* sp. on *Colutea* sp., shrubs).

Hosts: *Pergandeida robiniae* Macch., on *Robinia pseudoacacia* L.; *Pergandeida* sp., *Colutea* sp.

Zoogeography

The zoogeographical classification of various species of the *Aphidiidae* is at the initial state because of poor knowledge of distribution and ecology of species except, may be, in Central Europe. Nevertheless, quite a number of faunistic complexes is apparent to exist in this group which formulation is but not yet clear. For the quoted reason only general classification is used in this paper.

For the general zoogeographical classification that of Ghyl'bov and all. (l.c.) has been followed. After this classification the localities studied belong to the following zoogeographical districts: Stara Planina (Δ Bulgarka), West-Central-Bulgarian (Rila Mountain), Black sea coast (Bourgas, Nesseber, Varna) and southern Dobrudja (Balchik). Stara Planina and West-Central-Bulgarian districts fall under Eurosiberian subregion, Black sea coast district under Mediterranean, and southern Dobrudja under Irano-Turanian subregion.

Two complexes of aphidiid species are represented in the collected material:

1. The steppe complex of the *Aphidiidae* is represented by *Ephedrus campestris*, *Praon dorsale*, *Aphidius funebris*, *Lysiphlebus arvicola* and *Lysiphlebus fabarum*. Some species of this complex are distributed throughout Europe but their maximum of occurrence is distinctly in the districts of steppe zone.

2. The coniferous forests complex of the *Aphidiidae* is represented by *Pauesia picta* and *Pauesia unilachni*. Species of this complex occur in mountains due to the distribution of coniferous forests in Bulgaria. They are distributed throughout Europe in the corresponding type of habitats.

The appreciation of *Lysiphlebus laticephalus* has not been clear. As far it is known this species is distributed from Europe to Central Asia, occurring in desert, steppe and woodland habitats. In every case this is a member of further faunistic complex.

The steppe complex of the *Aphidiidae* is a member of the fauna of Mediterranean subregion, the coniferous forests complex of the *Aphidiidae* belongs to the fauna of Eurosiberian subregion.

Faunistické poznámky o bulharských *Aphidiidae*

Práce představuje zpracování parazitů mšic sebraných v Bulharsku v oblasti pohoří Rila, Stara Planina, černomořského pobřeží a jižní Dobrudže. Všechny zjištěné druhy jsou nové pro zvířenu Bulharska.

References

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