

Revision of Swedish *Homalocephala* Zetterstedt (Diptera, Otitidae)

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The Swedish species of *Homalocephala* Zetterstedt, 1838, are revised. *Psairoptera biumbata* Wahlberg, 1838, is designated as type species of *Psairoptera* Wahlberg, 1838, a junior synonym of *Homalocephala*. Lectotypes are designated for: *Homalocephala albitarsis* Zetterstedt, 1838, *Psairoptera bimaculata* Wahlberg, 1838, *Psairoptera biumbata* Wahlberg, 1838, *Psairoptera apicalis* Wahlberg, 1838, and *Psairoptera angustata* Wahlberg, 1838. Both *H. albitarsis* and *H. biumbata* are distinct, valid species. *Psairoptera bipunctata* Loew, 1854, is a junior synonym of *Homalocephala albitarsis* Zetterstedt, 1838 (syn. n.). The Swedish distributions of and a key to the species are presented.

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Homalocephala Zetterstedt is currently placed in subfamily Euxestinae of family Ulidiidae (Zaitzev 1984) or preferably in subfamily Ulidiinae of family Otitidae (Steyskal 1987).

The flies of *Homalocephala* are not common. Their distribution is concentrated to Fennoscandia and NW USSR. Two species have a wider European distribution and three of the six Fennoscandian species are Holarctic.

Psairoptera Wahlberg is currently listed as a junior synonym of *Homalocephala* (Zaitzev 1984). Zetterstedt (1847) designated *Homalocephala albitarsis* Zetterstedt as type species of *Psairoptera*. This type designation is invalid as this species was not included in the original description of *Psairoptera*.

Zetterstedt's *Insecta Lapponica* was published in five fascicles and *Homalocephala* was described in Fascicle IV, published in 1838 (Persson, in litt.). Wahlberg had, according to the introduction of his paper, published as pre-print in 1838, not seen Fascicle IV of *Insecta Lapponica* before describing *Psairoptera*. Dr Persson works on the problem whether Fascicle IV or the pre-print was published first. Until this problem is solved, the valid name of the genus is *Homalocephala* according to common use.

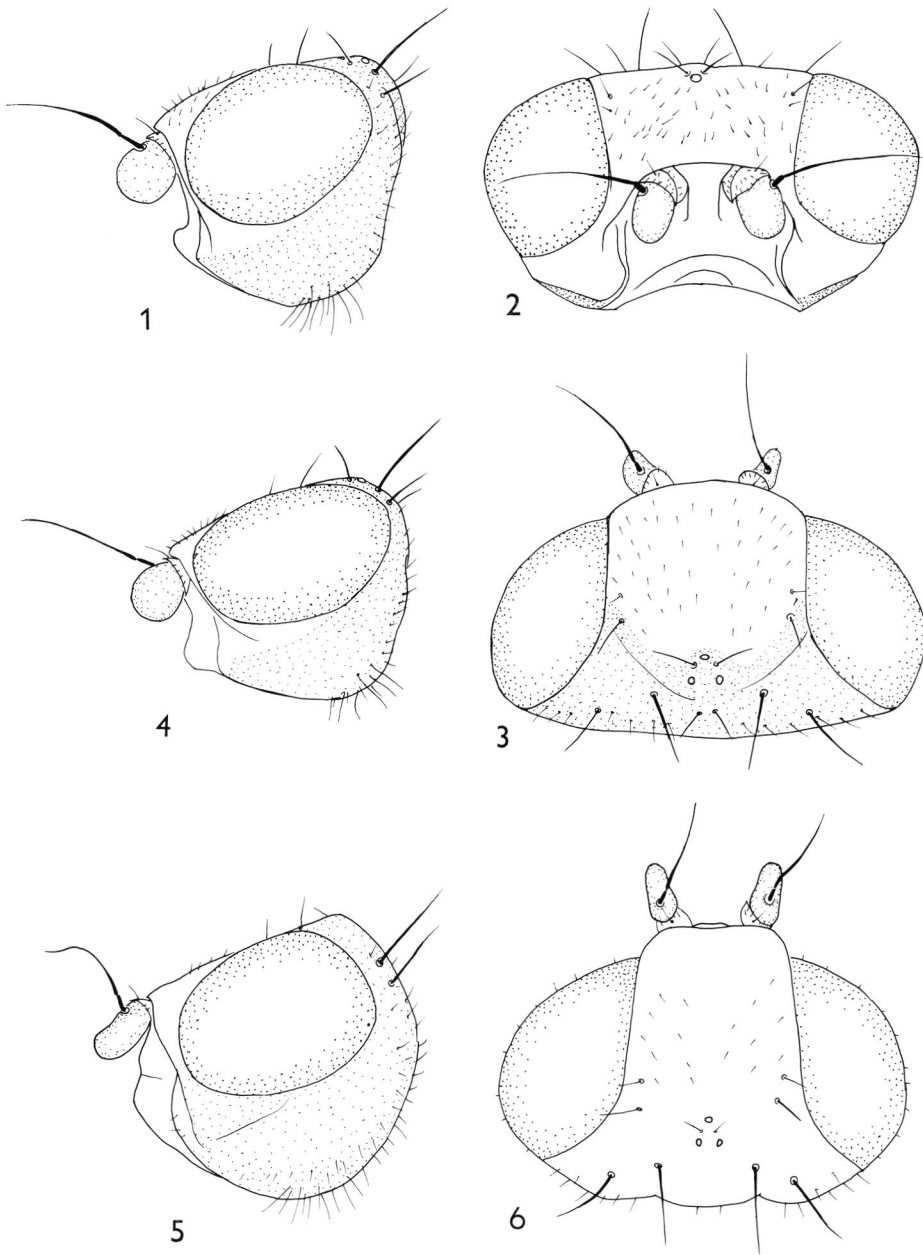
Homalocephala Zetterstedt

Homalocephala Zetterstedt, 1837 (nomen nudum); Zetterstedt, 1838 (type species: *H. albitarsis* Zetterstedt, 1838, by monotypy).

Psairoptera Wahlberg, 1838 (type species: *P. biumbata* Wahlberg, 1838, by present designation).

Key to Fennoscandian species

1. One pair of scutellar bristles (*sc*) . . . *H. biseta* (Frey)
– Two pairs of *sc* 2
2. Halteres black. Third antennal segment distinctly longer than broad. Legs predominantly black. Wing as in Fig. 7 *H. apicalis* (Wahlb.)
– Halteres white. Third antennal segment rounded, about as long as broad 3
3. Legs completely yellowish red. Wing as in Fig. 8 *H. bimaculata* (Wahlb.)
– Legs extensively black 4
4. Face and jowls dark. Frons narrow (Figs 5, 6). Abdomen narrow with few short bristles. The apical wing spot narrow, reaching vein Cu_1 (Fig. 9) *H. angustata* (Wahlb.)
– Face and jowls in front white. Frons broad (Figs 2, 3). Abdomen broader and with numerous, stouter bristles 5
5. Basal wing spot restricted to wing field between veins Sc and R_1 . Apical wing spot small, rounded, not reaching R_{4+5} (Fig. 10). Scutellum and ovipositor sheath (T_7+S_7) pruinose, covered by microchaetae. Apical part of surstyli directed outwards (Fig. 12). *H. albitarsis* Zett.



Figs 1-6. *Homalocephala*, head, lateral (1, 4, 5), front (2), and dorsal (3, 6) view. -1-3. *H. albatarsis* Zett. - 4. *H. biumbrata* (Wahlb.). - 5-6. *H. angustata* (Wahlb.).

- Basal wing spot usually extended as brownish area covering anterior transverse vein (t_a). Apical wing spot larger and passing vein R_{4+5} (Fig. 11). Scutellum and ovipositor sheath shining, without microchaetae. Apical part of surstyli incurved (Fig. 13).
 *H. biumbrata* (Wahlb.)

Homalocephala albitarsis Zetterstedt

Homalocephala albitarsis Zetterstedt, 1838:749.

Psairoptera bipunctata Loew, 1854:22, *syn. n.*

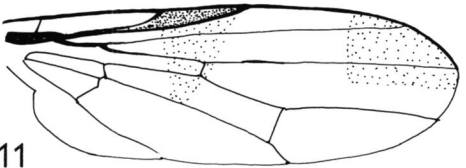
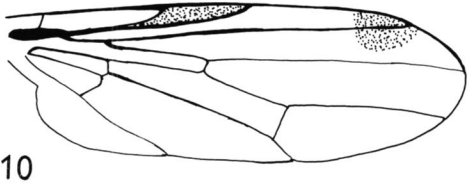
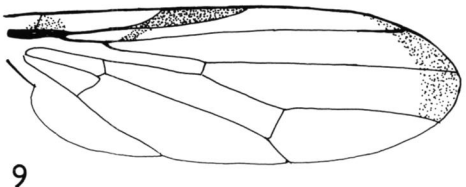
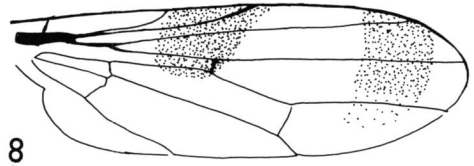
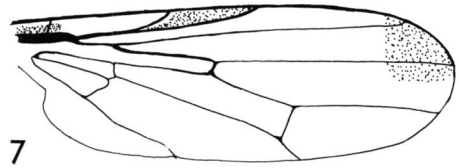
Homalocephala bipunctata Loew: Ringdahl 1931-1951

Zetterstedt 1838: To, N; 1847 p. p.: T. Wahlgren 1919 p. p.: Lpl. Ringdahl 1948: Nb (as *bipunctata* Loew); 1931, 1951: To. Abisko, Jebrenjokk (as *bipunctata* Loew).

Both sexes were described from Norway, Dovre, leg. Boheman and from Sweden, Torne lappmark, Jukkasjärvi. The Swedish specimens were bred from puparia found in rotting bark of *Pinus*. No syntype from Dovre is present in coll. Zetterstedt or coll. Boheman. The bred material from Jukkasjärvi is represented in coll. Zetterstedt in Lund by 3♂3♀ and eight empty puparia. All the imagines are teneral and practically without dark spots on the wings but with pruinosity on the scutellum and the seventh female tergites. The top specimen on a pin with two males and one empty puparium and labelled "H. albitarsis ins L. ♂. Psair. 2 umbrata Wbg. Juckasj" in Zetterstedt's handwriting is here designated as the lectotype of *H. albitarsis* Zett. The tip of the abdomen of the lectotype specimen has been detached and the genitalia relaxed. The removed abdominal parts have been mounted on the pin in glycerol in a plastic tubing. The other 2♂3♀ are designated as paralectotypes. All studied type specimens are conspecific. The name is valid in the binomen *Homalocephala albitarsis* Zetterstedt, 1838.

In 1854, Loew described the new species *Psairoptera bipunctata* from Poland giving the restricted dark area at Sc as the only differential character from "*albitarsis* Zett." (= the true *biumbrata* Wahlb.), i.e. the description of *bipunctata* Loew agrees with the true *albitarsis* Zett. All following authors have applied the name *bipunctata* Loew in that sense and *Ps. bipunctata* Loew, 1854, surely is a junior synonym of *H. albitarsis* Zett.

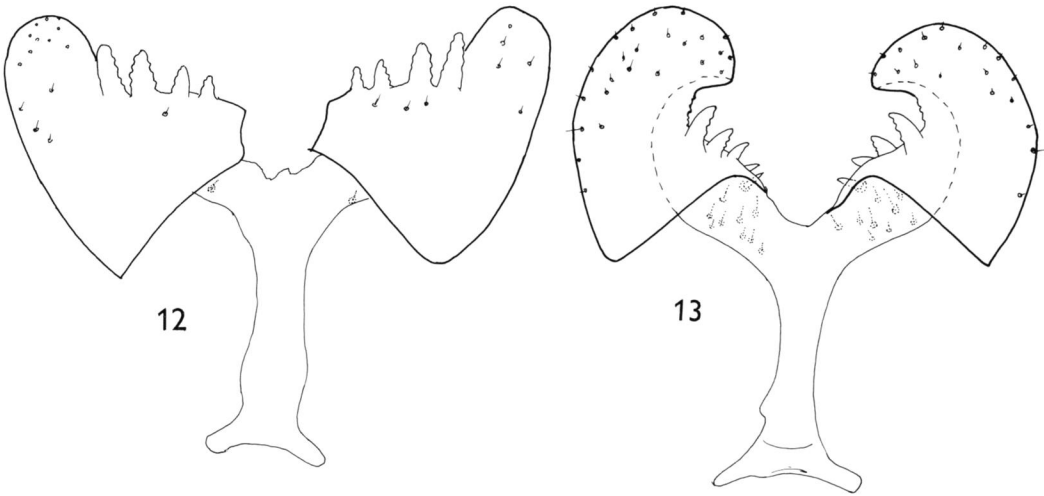
Studied material. Sweden. Sm: Hyltebruk, 28.6-8.7.1986, 9♀, 13-19.7.1986, 1♀, 16-23.7.1987, 1♀, 7-15.6.1988, 1♂1♀, 15-23.6.1988, 1♂, 23-29.6.1988, 5♂1♀, Malaisetrapp, P. & J. Ardö. — Ög: Gusum, 1♂, Wahlberg. — Vg: Töreboda, Sisjön, 12.6.1953, 1♀, S. Gaunitz. — Vr: Munkfors, 1.8.1951. 1♀, Ringdahl. —



Figs 7-11. *Homalocephala*, wing. -7. *H. apicalis* (Wahlb.). -8. *H. bimaculata* (Wahlb.). -9. *H. angustata* (Wahlb.). -10. *H. albitarsis* Zett. -11. *H. biumbrata* (Wahlb.).

Vb: Skellefteåtrakten, 17.1956, 1♂, Ringdahl. — Nb: Pitteå, 4.7.1947, 2♀, Ringdahl; Luleå, 14.7.1919. 1♂, Ringdahl. — To: Jukkasjärvi, 3♂3♀, Zetterstedt (lectotype and paralectotypes).

Distribution. Known from GB, DDR, N, P, S, SF and the northwest part of European USSR. Also reported from North America.



Figs 12–13. *Homalocephala surstyli*, posterior view, and ventral epandrial plate, internal view. – 12. *H. albitarsis* Zett. – 13. *H. biumbrata* (Wahlb.).

Biology. Bred from rotten bark of *Pinus* (Zetterstedt 1838) and from Douglas fir stamp (Cogan & Dear 1974).

Homalocephala bimaculata (Wahlberg)

Psairoptera bimaculata Wahlberg, 1838:20.

Wahlberg 1838: Ög, Gusum. Zetterstedt 1847: Jä, Faxälven and Säter. Wahlgren 1919: Ög, Jä.

The female was described from material taken rarely in Sweden, Östergötland, Gusum. In coll. Wahlberg in Swedish Museum of Natural History, Stockholm, there are 4♂11♀, labelled with a small, light green rhombic tag indicating the coastal area of Östergötland where Gusum is situated and 2♂1♀, labelled “O. G.” and “P. Wg.” indicating that the material was collected by Wahlberg in Östergötland. In coll. Boheman in the same museum there are 8♂5♀, labelled “O. G.” and “P. Wg.” and in coll. Roth in Lund 1♂2♀ with the same labelling. It is now impossible to identify the type series among this material. Anyhow, I have selected one of the females in coll. Wahlberg as the lectotype and labelled it so. The name is valid in the binomen *Homalocephala bimaculata* (Wahlberg, 1838).

Studied material. Sweden. Sm: Bolmen, 6.7.1957, 1♂, 20.8.1957, 1♀, Ringdahl. — Ög: Gusum, 15♂19♀, Wahlberg. — Up: Rimbo 25.3.1971, 1♂1♀, Hedquist. — Jä: Faxälven, 9.8.1840, 1♂; Säter at Krokumsälven, 10.8.1840, 1♀, Zetterstedt.

Distribution. Known from S, SF, and the northwest part of European USSR.

Biology. Unknown.

Homalocephala biumbrata (Wahlberg)

Psairoptera biumbrata Wahlberg, 1838:21.

Homalocephala albitarsis auct. nec Zetterstedt, 1838:749.

Wahlberg 1838: Ög, Up, Jä. Zetterstedt 1847: Ög, Vg, Jä, Faxälven; Östersund, Villam säter (as *albitarsis* Zett.). Wahlgren 1919: Ög – Lpl (incl. *albitarsis* Zett.). Ringdahl 1935: Sk; 1948: Sk, Sm, Jä; 1951: Jä (as *albitarsis* Zett.).

Both sexes were described from material from Sweden, Uppland, Stockholm, Haga, leg. Boheman, from Östergötland, Gusum, leg. Wahlberg and from Jämtland, leg. Boheman. In coll. Wahlberg there are 7♂16♀ from Gusum (labelled with light green rhombic tags meaning collected in the coastal area of Östergötland) and in coll. Boheman under the name *albitarsis* Zett. 1♀ with one puparium from Uppland, the coastal area (gilt rhombic tag). This specimen could belong to the material from Haga bred by Boheman. In coll. Zetterstedt there are under the name *albitarsis* Zett. 6♂6♀ (labelled: “O. G.” and “P. Wg.”) one bred female with puparium from Jämtland (white and blue tags), leg. Boheman and 2♂1♀ from Gusum, leg. Wahlberg. In coll. Roth there are 1♂2♀ from Gusum, leg. Wahlberg, and in coll. Wallengren in Lund 1♀ from Gusum, leg. Wahlberg. I have designated as the lectotype a male with green tag in coll. Wahlberg and restricted

the type locality to Sweden, Östergötland, Gusum. The name is valid in the binomen *Homalocephala biumbata* (Wahlberg, 1838).

Studied material. Sweden. Sk: 1♀, Boheman; Arkelstorp, 20.6.1919, 1♂, Ringdahl; Åsljunga, 21.6.1915, 1♀, 27.7.1924, 2♀, 1.8.1931, 3♀, Ringdahl. — Sm: Bolmen, 14.6.1957, 1♂1♀, 24.6.1957, 1♀, 11.7.1957, 1♂1♀, Ringdahl; Hyltebruk, 22.6–8.7.1986, 1♀, 13–19.7.1986, 1♀, 7–15.6.1988, 1♂, 23–29.6.1988, 1♂, 9–19.8.1988, 1♂, P. & J. Ardö; Rydöbruk, 16–23.7.1987, 1♀, P. & J. Ardö; Skeen, 28.6.1942, 1♂1♀, Ringdahl; Solgen, 6.7.1933, 1♂, Ringdahl. — Öl: Färjestaden, 3.7.1946, 1♀, leg.?. — Ög: Gusum, 16♂26♀, Wahlberg. — Up: Stockholm, Haga, 1♀, 1 puparium, Boheman. — Vr: Sysseback, 25.6.1949, 1♀, Ringdahl. — Jä: Vallbo, 4.7.1935, 1♀, Ringdahl; Åre, 11.8.1946, 2♂2♀, Ringdahl. — Nb: Piteå, 4.7.1947, 1♀, Ringdahl.

Distribution. Known from GB, S, SF and the northwest part of European USSR.

Biology. Larvae are found among rotten leaves (Wahlberg 1838).

Homalocephala apicalis (Wahlberg)

Psairoptera apicalis Wahlberg, 1838:21.

Wahlberg 1838: Ög. Zetterstedt 1847: Ög, Up, Holmia, Fi, Uleåborg. Wahlgren 1919: Ög, Up, Ringdahl 1931: To; 1948: Öl; 1951: Ög, Up, Lpl.

Both sexes were described from a small material ("rarior") from Sweden, Östergötland, Gusum. In coll. Wahlberg there are 11♂9♀ from Gusum (light green rhombic tag); in coll. Boheman 7♂7♀ from the type area ("O. G.", "P. Wg"); in coll. Zetterstedt 1♂1♀; in coll. Roth 1♂ and in coll. Wallengren 1♀, all from Gusum, leg. Wahlberg. I have designated a male in coll. Wahlberg as the lectotype of *P. apicalis* Wahlberg and labelled it accordingly. The name is valid in the binomen *Homalocephala apicalis* (Wahlberg, 1838).

Studied material. Sweden. Sm: Hyltebruk, 7–15.6.1988, 1♂; (Malaise-trap), P. & J. Ardö; Skillingaryd, 18.7.1940, 1♀, A. Jansson. — Ög: Gusum, 20♂18♀, Wahlberg. — Up: The coastal area (gilt rhombic tag), 1♀, Wahlberg; Stockholm, 6.7.1922, 1♀; Ringdahl. — To: Abisko, 6.7.1922, 1♂, Ringdahl. — Norge, without locality, July 1913, 1♂; Ringdahl.

Distribution. Known from N, S, SF, and the northwest part of European USSR. North America.

Biology. The species has been reared from sap of *Pinus monticola* in USA, Montana (Steyskal 1965).

Homalocephala angustata (Wahlberg)

Psairoptera angustata Wahlberg, 1838:22.

Wahlberg 1838: Ög. Zetterstedt 1847, 1860: Ög. Wahlgren 1919: Ög.

The female was described from a single specimen collected in Sweden, Östergötland, Gusum in 1837. In coll. Wahlberg there are 10♂7♀ from Gusum (light green rhombic tag); in coll. Boheman 13♂3♀ ("O. G.", "P. Wg"); in coll. Zetterstedt 3♂2♀; in coll. Roth 4♂1♀; and in coll. Wallengren 1♀, all from Gusum, leg. Wahlberg. As the holotype specimen cannot now be traced, I have designated one of the females in coll. Wahlberg as the lectotype of the species and labelled it accordingly. The name is valid in the binomen *Homalocephala angustata* (Wahlberg, 1838).

Studied material. Sweden. Ög: Gusum, 30♂14♀, Wahlberg. This is the only known locality in Sweden. Wahlberg first found the species in 1837 and, according to Zetterstedt (1860) he refound it in Gusum in July, 1857. I have seen material from Finland from the 1930-ies.

Distribution: Known from S, SF and the northwest part of European USSR.

Biology. Unknown.

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References

- Cogan, B. H. & Dear, J. P. 1974. Additions and corrections to the list of British Acalypterae Diptera. — Ent. mon. Mag. 110: 173–181.
- Frey, R. 1908. Mitteilungen über finnländischen Dipteren. — Acta Soc. Fauna Flora fenn. 31: 1–24.
- Perry, I. & Stubbs, A. E. 1978. Dead wood and sap runs. — In: Stubbs & Chandler: A dipterists handbook. — The amateur entomologist 15: 65–73.
- Ringdahl, O. 1931. Insektfaunan inom Abisko Nationalpark. III:6 Flugor-Diptera Brachycera. — K. Sv. Vet. Akad. Skr. i naturskyddsärenden 18: 1–32.
- 1935. Fyndorter för sydsvenska Dipera. — Ent. Tidskr. 56: 201–203.
- 1948. Nya fynd av holometopa flugor. — Ent. Tidskr. 69: 1–4.
- 1951. Flugor från Lapplands, Jämtlands och Härjedalens fjälltrakter (Diptera Brachycera). — Opusc. ent. 16: 113–186.
- Steyskal, G. C. 1965. Otitidae. — In: Stone et al.: A catalog of the Diptera north of Mexico. — USDA Agr. Handbook No. 276: 642–654.
- 1987. Otitidae. — In: Manual of Nearctic Diptera 2: 799–808. Agriculture Canada, Monograph No. 28.
- Wahlberg, P. F. 1838. Bidrag till svenska dipternas kännedom. Stockholm (P. A. Norstedt & Söner).
- 1839. Bidrag till svenska dipternas kännedom. — K. Vet. Acad. Handl. 1838: 1–23.
- Wahlgren, E. 1919. Tvåvingar. Diptera Cyclorhapha Schizophora. Fam. 13–20. — Svensk insektfauna 11:22. Uppsala.

- Zaitzev, V. F. 1984. Ulidiidae. – In: Soos & Papp: Catalogue of palaeartic Diptera. 9: 59–66.
- Zetterstedt, J. W. 1837. Familiarum, generum et specierum dipterorum, in Fauna insectorum Lapponica descriptorum. – Isis von Oken. 1837: 28–67. Leipzig.
- 1838. Insecta Lapponica III, Diptera. Pp. 485–868. Leipzig.
- 1847, 1860. Diptera Scandinaviae. VI: 2363–2580, XIV: 6191–6609.

Sammanfattning

De fem svenska arterna i släktet *Homalocephala* Zetterstedt (Otitidae) revideras. En bestämmings-tabell ges för de Fennoskandiska arterna. Fyra av arterna är vitt spridda i Sverige, medan *H. angustata* (Wahlberg) endast är känd från Östergötland. Lektotyper har utsetts och en ny synonym ges.

Om tre svårskiljbara spetsvivar

Dieckmann, L. 1989. Die mitteleuropäischen Arten der *Apion* (*Catapion*) *seniculus*-Gruppe (Coleoptera, Curculionidae). Beiträge zur Entomologie 39(2): 237–253.

Vivelspecialisten Lothar Dieckmann, Eberswalde, hann att före sin död i tryck få se sitt tioåriga arbete om de centraleuropeiska *Apion*-arterna i *seniculus*-gruppen (usl. *Catapion*). Bakom denna artikel ligger en enträgen strävan att införskaffa typer och originalbeskrivningar, varvid inte mindre än 25 namn blivit granskade – trots att gruppen visat sig innehålla endast tre arter.

En av de sista kontrollsvårigheterna gällde *Apion tenuius* Gyllenhal. Då Dieckmann hade besvär med att få se dessa typdjur, lånade jag 1987 med Sten Jonssons hjälp fem djur som fanns i Gyllenhal's samling under detta namn. Materialet vidarebefodrades omedelbart till Dieckmann, som härigenom kunde konstatera att *tenuius* är en yngre synonym till *seniculus*. Djuren sitter nu som leкто- resp paralektotyper i Gyllenhal's samling i Uppsala.

Jag har tidigare (1988, Ent. Tidskr. 109: 101) redovisat Dieckmann's urskiljande av *A. meieri* som egen art. Utöver vad som tidigare skildrats om dessa arters levnadssätt nämner Dieckmann smultronklöver (*Trifolium fragiferum*) som näringsväxt åt *A. seniculus*. Han anger följande skiljekaraktärer för de båda arterna: (1) kroppslängd

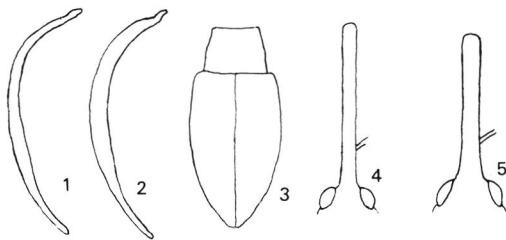


Fig. 1–6. *Apion*. –1–2. Penis från sidan. –1. *A. seniculus*. –2. *A. meieri*. –3. *A. meieri*, halssköld och täckvingar ovanifrån. –4–5. Huvud ovanifrån, ♀. –4. *A. meieri*. –5. *A. seniculus*. Omritat från Dieckmann (1989).

hos *meieri* 1,9–2,2 mm, hos *seniculus* 1,5–2,1 mm; (2) penis hos *meieri* kraftigare än hos *seniculus* (Fig. 1, 2); (3) halssköld hos *meieri* tydligt avsmalnande framåt (Fig. 3), hos *seniculus* m el m parallell; (4) honans snyte hos *meieri* smalare och mestadels längre med parallella sidor även mellan antennfästena och snytets bas, och ögonen mindre och mer utstående än hos *seniculus* (Fig. 4, 5).

Gruppens tredje art är *A. koestlini* Dieckmann, vilken påträffats i Polen, Tyskland, Schweiz och Italien. Det är inte uteslutet att den kan finnas även hos oss då den lever på olika *Ononis*-arter (puktörne m fl).

Tor-Erik Leiler