

Notes on some North-European Coleoptera

By GUNNAR ISRAELSON

1. *Stenichnus harwoodianus* Williams

A few examples of this species, in North-Europe previously known from Jutland (Hansen 1968, p. 153), were captured by Mr. Folke Olsson in Skåne: Degeberga, in a dry sandy hill facing south.

As far as known *harwoodianus* is brachypterous (observed by Franz 1960, p. 347). In the Swedish specimens examined the alae hardly reach 2/3 of the length of elytra and are not wider than the femora. The aedeagus corresponds with the drawing of Franz (l.c., Fig. 43). Spermatheca as in Fig. 1.

The spermatheca does not seem to have interested taxonomists working on *Stenichnus*. However, in all species examined by me it proved to be easily distinguished and more or less strongly sclerotized. As seen from Figs. 1—3 the two last of which being drawn from *bicolor* Denny and *collaris* M. & K., respectively, it is often of a characteristic shape and, therefore, may be of some diagnostic value.

2. The spermatheca of some *Orthoperus* species

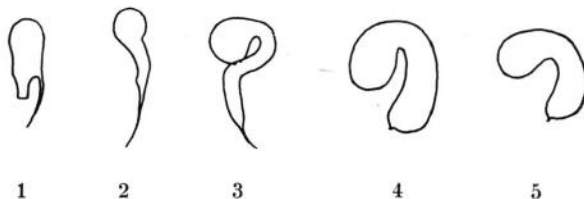
The male genitalia of several species of *Orthoperus* were reproduced by Bruce (1948) but nothing was mentioned about the female ones. Though small the spermatheca is well sclerotized, however, and seems to offer, in its proximal portion in particular, some features which may be of taxonomical interest. Drawings made from Swedish material are therefore given here for the following species: *punctatus* Wank. (Fig. 6), *brunnipes* Gyll. (Fig. 7), *atomus* Gyll. (Fig. 8), *improvisus* Bruce (Fig. 9), and *nigrescens* Steph. (Fig. 10).

3. *Scaphisoma inopinatum* Löbl

The above spelling of the generic name (instead of *Scaphosoma*) is the correct one, according to Mr. I. Löbl, Geneva (in litt.).

S. inopinatum was rather recently described from Siberia (Löbl 1967 a). Somewhat later (Löbl 1967 b, p. 33) the species was also recorded from North-Europe (Finland). My collection contains examples from two localities in Skåne: Verum, 9. VI. 1950 (determination kindly confirmed by Mr. Löbl) and Hässleholm, 30.X.1965. From the latter locality it was previously published under the name of *S. agaricinum* L. (Israelson 1966, p. 22).

Figs. 1—5. Spermatheca of some *Stenichnus* and *Ceuthorrhynchus* species. — 1. *Stenichnus harwoodianus* Williams, Skåne; Degeberga. — 2. *S. bicolor* Denny, Skåne; Hässleholm. — 3. *S. collaris* Müll., Skåne; Vinslöv. — 4. *Ceuthorrhynchus gallorheneanus* Solari, Gotland; Kräklingbo. — 5. *C. assimilis* Payk.



Figs. 6—10. Spermatheca of some *Orthoperus* species. — 6. *O. punctatus* Wank, Skåne; Ignaberga. — 7. *O. brunnipes* Gyll., Skåne; Ven. — 8. *O. atomus* Gyll., Jämtland; Åre. — 9. *O. improvisus* Bruce, Skåne; Hallands Väderö. — 10. *O. nigrescens* Steph., Skåne; Ivetofta.



Like some other species of the *agaricinum* group this is difficult to identify on external features but the aedeagus enables a safe determination (Löbl 1967 b, Fig. 3).

4. *Conosoma marshami* Steph.

Recent revisions of the *Conosoma* "testaceum" material have revealed the presence of *marshami* in Norway (Strand 1966, p. 410), Finland (Stockmann 1967, p. 279), and Denmark (Hansen 1967 p. 219). In the vicinity of Hässleholm in Skåne *marshami* has been found to be more common than *testaceum* Fabr.

5. *Atheta (Hydrosmecta) tenella* Mannh.

On an excursion in Ivön (Skåne), 14.VI.1969, Mr. Folke Olsson called my attention to a small staphylinid, present on damp sand nearly devoid of vegetation and close to the water-line. The insect proved to correspond excellently with *Atheta tenella* as described by Strand (1964, p. 244) from some Fennian specimens. Its occurrence seemed to be very local since it was sought for in vain in several similar biotopes in the island.

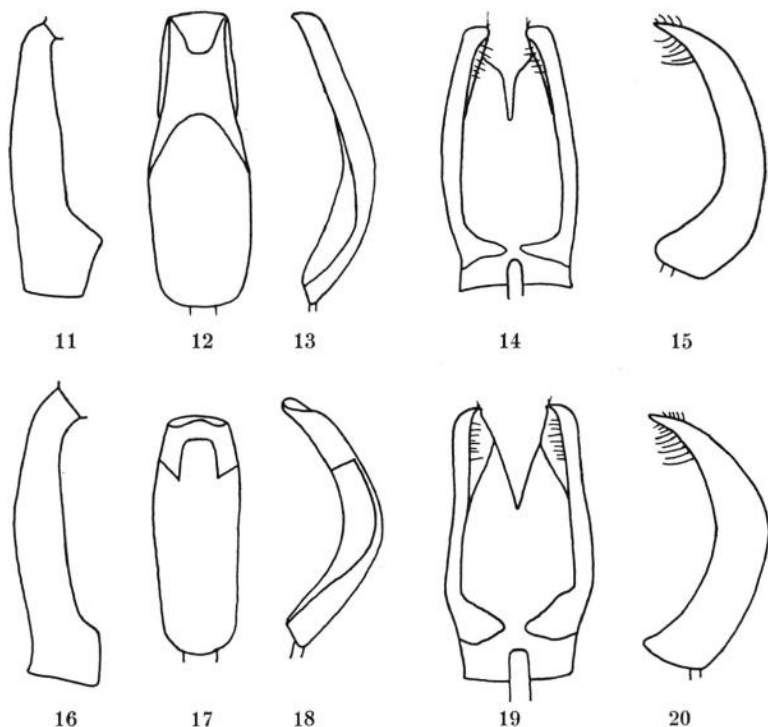
6. *Meligethes gagatinus* Er.

M. lugubris Sturm v. *gagatinus* Er. was listed by Hellén (1939 p. 66) from Öland. In Hellén 1947 (p. 41) this form was retained but not marked for Sweden and in Lindroth (1960, p. 268) it was omitted.

Later it has turned out that *lugubris* and *gagatinus* are separate species (Spornraft 1967, p. 47). Both species were recorded from Denmark (Hansen 1969, p. 33). The "*lugubris*" mentioned by me from the vicinity of Hässleholm (Israelson 1954, p. 11) in reality is *gagatinus*.

The stated absence of microreticulation in the posterior region of pronotum in the latter species does not seem to be a reliable distinctive feature since the microreticulation is distinct in some of the specimens examined by me but indistinct in others.

I have seen no Swedish examples of *lugubris*.



Figs. 11—20. *Epuraea danica* Sjöb., holotype (11—15) and *E. opalizans* J. Sahlb., Skåne: Gumlösa (16—20). 11 and 16, mesotibiae; 12, 13, 17, 18, penes; 14, 15, 19, 20, parameres.

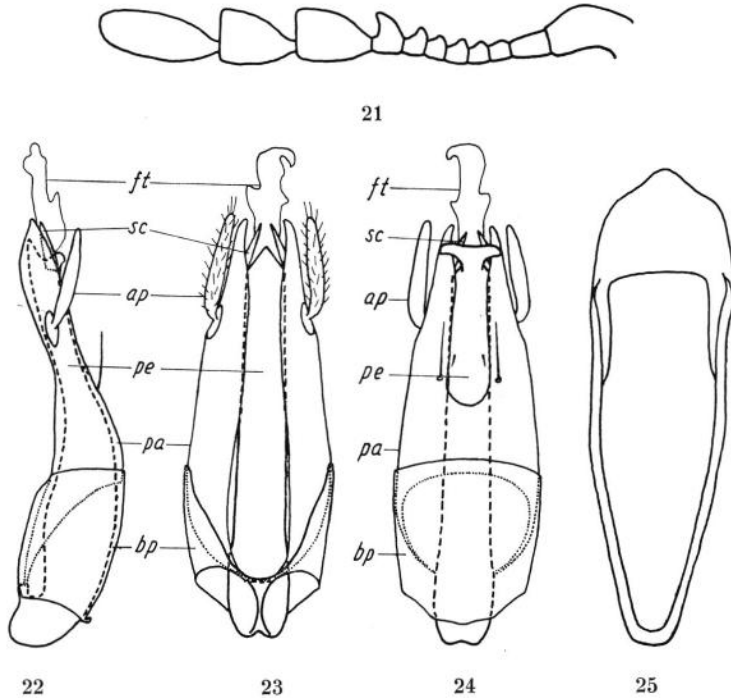
7. *Epuraea danica* Sjöberg and *E. opalizans* J. Sahlb.

Drawings of the male genitalia of most *Epuraea* species recorded from North-Europe were reproduced by Spornraft (1.c.). Like some other northern species *opalizans* was not considered. The latter was known to possess a wide distribution from northernmost Norway down to Västergötland and Östergötland as well as Öland and Gotland (Lindroth l.c. p. 270—273). It has now been found in Skåne also (several localities in the vicinity of Hässleholm).

On examination of my *opalizans* material I found reason to compare it with *danica* and by the courtesy of Mr. Sv. Larsson I had the opportunity of studying the male holotype of the latter standing in the collections of the Zoological Museum of Copenhagen. Therefore I am here able to figure the mesotibiae and male genitalia both of *danica* (Figs. 11—15) and *opalizans* (Figs. 16—20).

8. *Pocadius lanuginosus* Franz.

Of this species recently described from Austria (Franz 1969, p. 146) I possess a single female specimen collected in Skåne: Matteröd, 11.VII.1950. This is clearly distinguished from the common *P. ferrugineus* Fabr. by its longer and more erect vestiture among other things.



Figs. 21—25. *Stagetus borealis* sp. nov., holotype. — 21. antenna. — 22. aedeagus in lateral view. — 23. aedeagus in dorsal view. — 24. aedeagus in ventral view. — 25. genital segment. bp, basal piece; pa, paramere; pe, penis; ap, parameral appendages; sc, sclerite; ft, fibrillose tuft.

9. *Hypocoprus quadricollis* Reitt.

According to Lindroth (1960, p. 278—281) *H. lathridioides* Motsch. occurs in Norway, Finland, and northernmost Sweden while *H. quadricollis* is listed for southern Finland, southern Sweden, and Denmark.

Vogt (1967, p. 102) was unable, on external characters, to keep the two species apart. I have compared a *Hypocoprus* from ant nests in Norrbotten with another from cow droppings in Skåne. Nor the outer features nor the aedeagus seem to offer any safe possibilities of separating the two forms. This supports Vogt's view of *quadricollis* to be a synonym of *lathridioides*.

10. A new species of *Stagetus*.

Recent revisions by Español including examination of the male genitalia have provided a firm basis for taxonomy in *Stagetus*. As for *S. pilulus* (Aubé) also recorded from Finland and Sweden the usually stated distribution is a rather vast one (Horion 1961, p. 245) but in the southern material revised by Español only French examples were observed (Español 1969, p. 117). The East-Mediterranean and North African forms proved to belong to other species.

Animated by the hesitation expressed by Español regarding the identity of the North-European form with the true *pilula* I have examined some Swedish material which was generously put to my disposal by Mr. Lars Huggert and Mr. Tore Nyholm. This material was found to belong to a new species, an opinion which was kindly confirmed by Mr. F. Español (in litt.) on a description sent to him. The species is described below.

Stagetus borealis sp. nov. Syn.: *Theca pilula* auctt. scand., nec Aubé 1861, p. 95, nec *S. pilulus*, Español 1969, p. 116.

Holotype, male: Sweden, Västerbotten, Klabböle, 4.VI.1967, L. Huggert leg. (Coll. Zool. Mus., Lund).

Paratypes: same data as for holotype, 12 specimens in Coll. Huggert and 4 specimens in my collection. Torne Lappmark, Torneträsk, 8.VII.1919, E. Sellman leg., 1 ♂. Hälsingland, Loos, 9.VI.1933, O. Sjöberg leg., 1 ex., and Skrälldalen, Färila, 11.VI.1943, O. Lundblad leg., 1 ex. Dalarna, St. Kopparberg, 10.V.1950, O. Sjöberg leg., 1 ♂. The 4 last-mentioned specimens are in the collections of the Naturhistoriska Riksmuseet, Stockholm.

Description. Body 2.2—2.5 mm in length (head excluded) and 1.2—1.4 mm in width, 1.8—1.9 times as long as wide, moderately convex.

Head about half as wide across eyes as elytra; front not very densely punctuate, micropunctuate.

Antennae (Fig. 21) about 1/3 the length of body.

Pronotum slightly wider anteriorly than head, backward dilated in nearly straight lines up to the obtuse-angled posterior corners, about 1.5 times wider there and about 1.1 times longer than its anterior width. Posterior corners distinctly flattened; flattened portion prolonged for some distance along the posterior and lateral margins, the latter being faintly reborded. Punctuation indistinct anteriorly but distinct in middle and hind portion; lateral sides very densely beset with large but not very deep punctures. Micropunctuate.

Elytra a little wider across the well marked shoulders than pronotum, somewhat dilated backward; greatest width somewhat behind middle or, lateral margins being considered, in middle, 1.4—1.55 times as long as wide. Discal striae narrow but distinctly impressed with elongate and nearly parallell-sided punctures, interstices 3—4 times as wide as striae, flat. Lateral striae more deeply impressed, punctures larger and interstices about twice as wide as punctures and slightly convex. Interstices densely micropunctuate; micropunctures mostly arranged in more or less distinct rows causing a delicate transverse rugosity. Wings well developed.

Vestiture double; suberect hairs at most as long as 11th antennal segment.

Coloration. Head and pronotum brownish black to blackish, elytra often a shade paler (dark reddish brown), abdomen and legs reddish brown, antennae and palpa yellowish brown except for 1st antennal segment being darker.

Aedaegus (Figs. 22—24) about as long, parameral appendages and terminal tuft excluded, as pronotum and, when dry, at least 3 times as long as broad.

Basal piece surrounding penis and well developed ventrally but very much reduced dorsally, and leaving the proximal portion with the basal orifice free. Proximal margin with a ventral tooth.

Paramere likewise surrounding penis, very narrowly so on the dorsal side but for some distance in the middle on the ventral side, prolonged into lateral lobes, in side view hiding the distal half of penis entirely except for

the transverse subapical dilatation of the latter. Lobes narrowing apically, more abruptly so in lateral than in dorsoventral view and provided on their inner side near apex with a not very firmly attached triangular sclerite, on their outer side with an articulating appendage posteriorly slightly exceeding the tips of lobes and wearing numerous and rather short sensorial hairs, and ventrally, near middle with a strong suberect seta pointing backward.

Penis, in dorsal view, subparallel with abruptly acuminate apex, in ventral view apically with a transverse dilatation, and, in lateral view, slightly bent upward in middle and with outer half subparallel and apical portion gently narrowing, and with transverse dilatation appearing as a blunt tooth in front of apex. Ventrally at nearly 1/3 of the distance from apex there are 2 delicate spines directed forward. Fibrillose tuft emerging from ostium situated between apex and transverse dilatation, and curved in its terminal portion.

Genital segment (Fig. 25) forming an elongate frame in which the aedeagus is suspended.

For external characters as well as the elongate aedeagus *borealis* reminds of the recently described *franzi* Español (1969 p. 117) but the aedeagus is much smaller in the latter species and the shape of paramere is different.

Distribution and ecology. In addition to the localities mentioned above "*Theca pilula*" has been recorded from 7 more Swedish provinces (down to Småland in the south) and from a few provinces in southern Finland (Lindroth l.c. p. 324—327). If all those records refer to *borealis* remains to be found out but it is not improbable that they do so.

Most captures seem to have been incidental (Palm 1959, p. 280). Only in the type locality the species was caught in numbers (larvae) in a decaying pine-trunk. Further particulars were given by Huggert (1967, p. 172).

11. *Haltica tamaricis* Schrank

The North-European distribution known for the headed species was restricted to Northern Finland (Lindroth l.c. p. 391) until the capture in 1967 near Dueodde in Bornholm of a single specimen was published (Hansen 1968 p. 413). The circumstances made Hansen somewhat doubtful as to the true belonging to the Danish fauna of the species.

However, a few years earlier during a stay in Bornholm I happened to visit Dueodde (2.VIII.1963). On some *Salix* bushes growing on the dunes not very far from the water-line *tamaricis* was abounding, represented by mostly newly hatched imagines as well as larvae. The repeated finds indicate that *tamaricis* is a permanent resident of the island. Possibly this, like some other species of the genus, in Sweden at least, shows extreme fluctuations as to frequency from one year to another.

12. *Ceuthorrhynchus gallorhenanus* Solari

This species is very similar to *C. assimilis* Payk. but is often distinguished by its more greyish hue.

The elytral striae are shallower and less broad in *gallorhenanus* than in *assimilis* and the striae hairs are longer, the distal end almost reaching the proximal of the following even in the posterior elytral portion while in

assimilis they are short and inconspicuous. The vestiture of interstices consists of 2—4 irregular rows of hairs not infrequently intermingled with scales in the former species. In *assimilis* the hair rows are 1—3 and scales are absent or solitary except for the scutellar region. The innermost row of hairs in *assimilis* is in *gallorhenanus* replaced in its entire length by a row of scales. For further external differences the reader is referred to Dieckmann (1962, p. 172).

No differences in respect of aedeagus seem to have been noticed between the two species. From dissections of some females it appeared that the spermatheca is somewhat variable in shape in both species but it was always more strongly curved in *assimilis* (Fig. 5) than in *gallorhenanus* (Fig. 4).

So far *gallorhenanus* has not been distinguished in North-Europe. On several excursions (1954, 1957, and 1967) in Gotland, however, I collected a series of what later turned out to be this species. The determination was kindly confirmed by Mr. L. Dieckmann.

According to my material *gallorhenanus* would be commonly distributed all over the island from Fårö to Hablingbo and it would be more common there than *assimilis*. Both species were also present in a *Ceuthorrhynchus* collection sent to me by Mr. Stig Lundberg.

The imago was caught in all months from the end of may to the beginning of August. It was found by sweeping in meadows and gravel-pits and by sifting heaps of decaying leaves and pine-bark. Some specimens were knocked from various flowering plants: *Isatis tinctoria* L., *Reseda lutea* L., *Euphorbia esula* L., *Epilobium angustifolium* L., *Lonicera xylostemum* L., and *Cardus crispus* L.

Abstract

Stagetus borealis sp. nov. is described.

North-European records of the following species are given: *Stenichnus harwoodianus* Williams, *Scaphisoma inopinatum* Löbl, *Conosoma marshami* Steph., *Atheta tenella* Mannh., *Meligethes gagatinus* Er., *Pocadius lanuginosus* Franz, *Haltica tamaricis* Schrank, and *Ceuthorrhynchus gallorhenanus* Solari.

Hypocopus quadricollis Reitt. is regarded as a synonym of *H. lathridioides* Motsch.

The spermatheca of some species of *Stenichnus*, *Orthoperus*, and *Ceuthorrhynchus* and the mesotibiae and aedeagi of *Epuraea danica* Sjöb. and *E. opalizans* J. Sahlb. are figured.

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