Some species of Dolichopodidae (Dipt.) new to Sweden

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Dolichopus austriacus Par. — *Sk.* S. Mellby, Äsperöd, 1 ♂ (C. D. E. Roth); Vitaby, Vitemölla, 1 ♂, 15.VII.1947 (Bo Tjeder); Torekov, 1 ♂ (C. D. E. Roth). — *Öl.* Högsrum, Halltorp, 1 ♂, 28.VI.1952 (P. Ardö, P. I. Persson). All the specimens in the collections of the Zoological institute, Lund.

The species is in the male sex easily identified with the key and description of Stackelberg (1930) and the key of Parent (1938). Stackelberg compares it with *D. linearis* Meig. and *D. nubilus* Meig. The similarity with the first species is not striking and it is probably the admitted artificiality of the grouping of the palearctic *Dolichopus* species that makes Stackelberg compare them. On the other hand, he seems to be right in presuming a close relationship between *D. nubilus* and *D. austriacus*. All the more obvious differences between the males of the two species (existence or absence of ventroapical bristle to fore tibiae, shape of wings and antennae, and, of course, hypopygium) concern typical male sex characters, while the species agree in practically every nonsexual character.

The female of *D. austriacus* has not been described but it will presumably prove to be hard to distinguish from that of *D. nubilus*. In the collections at Lund there is one female of the *D. nubilus* type from *Sk.* Torekov (C. D. E. Roth), labelled in identically the same way as one *D. austriacus* male mentioned above. As it is not at all unlikely that they are conspecific, I have put the female to a close examination in order to search for any differences between it and such female specimens as I for various reasons consider as definitely belonging to *D. nubilus*. Neither in the external morphology nor in the microscopical details of the postabdomen have I, however, been able to find any difference clear enough to warrant a mention here as a possible distinguishing character. I feel confident, though, that when there is a larger material at hand of plausible *D. austriacus* females, there will prove to be at least some rather clear-cut statistical differences.

D. austriacus is previously known from Austria, S. E. Russia, and Turkestan.

Hercostomus praeceps Lw — *Sk.* Ilstorp, 1 ♀, 13.VII. (C. D. E. Roth), 1 ♀, 27.VII. (C. D. E. Roth); S. Åsum, Omma, 1 ♂, 19.VII. (C. D. E. Roth); Lomma, Alnarp, 1 ♂, 25.VI.1960 (Hugo Andersson); Öved, Torpsklint, 1 ♀, 28.VIII.1962 (Hugo Andersson). The first three specimens belong to coll. Roth at the Zoological institute, Lund, and the latter two to coll. H. Andersson.

The species can be determined with the keys and descriptions of Stackelberg (1933—34) and Parent (1938). It is very similar to *H. fulvicaudis* Walk. but in particular the hypopygia are distinctive. Since the latter species has previously been recorded from Sweden and since there has been considerable taxonomical confusion regarding these two species, I became suspicious that *H. fulvicaudis* might not after all be a member of our fauna.

Mik (1884) synonymized *H. praeceps* with *H.* (*Dolichopus*) *rothi* Zett. after a comparison of the descriptions and apparently without having seen the types. He does not mention *H. fulvicaudis* or *Dolichopus bicingulatus* Zett. in the context. Becker (1917) does not accept Loew's species *H. praeceps* as distinct from *H. fulvicaudis* and synonymizes all the four names. Stackelberg (1933—34) and Parent (1938) restore the distinction between *H. fulvicaudis* and *H. praeceps* and place Zetterstedt's two names as synonyms of *H. fulvicaudis*. In doing so they are probably unaware of the synonymy proposed by Mik and are apparently just citing Becker.

H. fulvicaudis was first recorded from Sweden by Ringdahl (1928) in the sense of Becker, on account of Zetterstedt's two "species" described from a few localities in Skåne. Later Ringdahl has published a finding of his own from *Sk.* Torekov, Hallands Väderö (1941, 1960).

Through the kindness of Mr. Hugo Andersson of the Zoological institute, Lund, I have received the only remaining types of *D. rothi* Zett. and *D. bicingulatus* Zett. for examination. According to Zetterstedt's description of *D. rothi* (1859, p. 5061) there are three possible syntypes, but of those the female caught at Ilstorp by Roth is the only one still in existence. It lacks the antennae but the chaetotaxy of the hind tibiae agrees perfectly with that of *H. praeceps*, as far as can now be judged.

As regards *D. bicingulatus* the type situation is even less favourable. Of the possible syntypes, one male "var. a" in Zetterstedt's so called Gothenburg collection has been completely destroyed, only a pin with labels remaining, and one male "var. b" in coll. Wallengren (which collection is now kept at the Zoological institute, Lund, as a deposition from the Malmö Museum) has only one fore leg and parts of the thorax left. These fragments only permit the conclusion that, in all probability, it belongs to either of the species *H. praeceps* and *H. fulvicaudis*. In view of the fact, however, that there is now reason to doubt the presence of the latter species in Sweden, I prefer to place *D. bicingulatus* as a synonym to *H. praeceps* with retention of the mark of interrogation fixed to its synonymisation with *H. fulvicaudis* by Stackelberg and Parent.

I thus present the following revised synonymy:

Hercostomus praeceps Loew 1869.

?Dolichopus rothi Zetterstedt 1859.

?Dolichopus bicingulatus Zetterstedt 1859.

Hercostomus fulvicaudis Walker 1851 (as *Sybistroma fulvicaudis*).

As the interpretation of *D. rothi* is somewhat uncertain I prefer to keep Loew's name for the species in accordance with the traditional nomenclature, until more conclusive evidence is found concerning the identity of Zetterstedt's species.

H. praeceps has been reported from Germany, Belgium, and France.

Hercostomus nanus Macq. — *Sk.* Flackarp, 1 ♂, 26.VI.1960 (Hugo Andersson). In coll. H. Andersson.

This species can be determined with the works proposed for the identification of *H. praeceps*. One must warn, however, that for some obscure reason Stackelberg has placed both sexes of the species in the key to the "II. Gruppe", which is characterized by pale lower postocular bristles, but only the female in the key to the "III. Gruppe", with the postocular bristles all black. In his description of the species he states that the postocular bristles are black and mentions no variation. Parent, who has adopted the same grouping in his keys, puts both sexes in both groups but in the description he, too, declares the postocular bristles to be uniformly black. The present specimen has its postocular bristles all black as do also two female Danish specimens in my own collection. This coloration certainly seems to be the normal one.

H. nanus has its nearest localities in Denmark and the British Isles and is distributed all over the central and southern parts of Europe.

Poecilobothrus infuscatus Stann. — *Boh.* Klövedal, Kyrkesund, 1 ♂ (A. W. Malm). In the collections of the Museum of Natural History, Gothenburg.

The keys and descriptions of Parent (1938) and Stackelberg (1941) make this species easy to identify. It should be observed, however, that Parent in his key to the males states that the fore coxae are grey, while, as for instance appears from his own description, they in fact are wholly or at least extensively yellow.

The species is previously known from the British Isles, Central and Southern Europe, and Algeria.

Hydrophorus oceanus Macq. — *Boh.* Lysekil, 1 ♂ 2 ♀♀, 9.VII.1859 (A. W. Malm). In the collections of the Museum of Natural History, Gothenburg.

This species differs from all our other species of the genus in having only one pair of scutellar bristles. See further for instance Parent (1938).

H. oceanus is otherwise distributed from Denmark and the British Isles, along the Atlantic coasts of France, and south to Morocco.

Thrypticus pollinosus Verr. — Bl. Torhamn, Sibbaboda, 1 ♀, 11.VII.1958. — *Gotl.* Vamlingbo, S Rembs, 1 ♀, 8. VII.1963. — *Ög.* Gryt, Lövudden, 2 ♀♀, 30.VI.1964; 5 ♂♂ 1 ♀, 1.VII.1964; 1 ♀, 3.VII.1964; 4 ♂♂, 5.VII.1964. — *Upl.* Roslagsbro, Norsjön, 3 ♂♂ 1 ♀, 10.VII.1965. All the specimens collected by myself and distributed to coll. L. Hedström and the collections of the Zoological institute, Uppsala.

For the identification of the European species of this genus I recommend the paper of Frey (1957). It takes, however, a good experience of the intraspecific variation, particularly in the colour of the legs, to be able to use the key successfully. That applies especially to the females, which I hope sometime to be able to treat more extensively. Concerning *T. pollinosus* it should be observed that the legs are often darker than Frey states. According to him the fore tibiae should be uniformly yellow, but often all the tibiae seem brownish black, the middle pair being the lightest. From the group of species, however, that are characterized, according to Frey, *i.a.* by entirely black tibiae, *T. pollinosus* differs in having the tibiae always somewhat translucent, if one takes care to view them from varying directions and against various backgrounds. The shape of the middle tibiae forms a useful character in

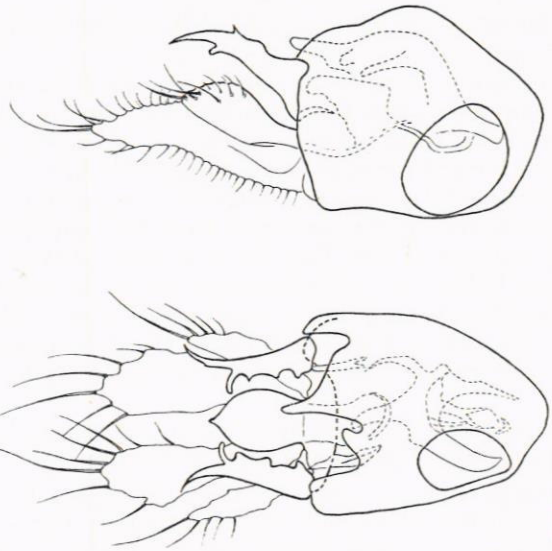

Fig. 1. *Xiphandrium albifrons* Zett., hypopygium. A. left lateral view; B. dorsal view.

both sexes. In *T. pollinosus* they are rather thick, widening gradually from base to apex, and conspicuously curved outwards.

The species is previously known from Finland and the British Isles.

Thrypticus pruinosus Par. — *Sk.* Flackarp, 1 ♂ 1 ♀, 26.VI.1960 (Hugo Andersson). — *Ög.* Gryt, Lövudden, 2 ♂♂ 2 ♀♀, 5.VII.1964 (L. Hedström). — *Nb.* Nederluleå, Antnäs, 1 ♂, 12.VII.1956 (Richard Dahl). The specimens belong respectively to the collections of H. Andersson, L. Hedström, and R. Dahl.

This species belongs in Frey's group with black tibiae. One character worth emphasizing is that the wings are of ordinary proportions, not long as those of *T. nigricauda* Wood and the female *T. cuneatus* Beck.

T. pruinosus is previously known from Finland and Belgium.

Xiphandrium albifrons Zett. — Ly.lpm. Tärna, Laisaliden, 1 ♀, 17.VII. 1961 (Andersson, Larsson, Larsson). — *T. lpm.* Jukkasjärvi, at the brook Ridonjira on the eastern slope of Nuolja, 1 ♂, 26.VII.1960 (L. Hedström). The specimens respectively in the collections of the Zoological institute, Lund and in coll. L. Hedström.

It is the only Swedish species of *Xiphandrium* with the frons dusted white and is easily determined with the keys and description of Parent (1938). To give some further help with the identification I present two figures of the hypopygium of the Nuolja specimen (fig. 1).

Strobl (1893) and Becker (1918) have declared Zetterstedt's species, which was described from Norway, synonymous to *X. sagax* Gerst., described from the Alps. Becker (*l.c.*) also sank his own species *X. breviseta,* likewise described from the Alps, to a synonym of *X. albifrons.* Since Zetterstedt described his species from a female specimen, the only one hitherto known from Northern Europe, and since many species of the genus are still unsatisfactorily recognized in the female sex, there remains, however, some space for doubt about this synonymy although it certainly seems plausible.

Now that I have the first male specimen from Scandinavia at hand, I have taken the opportunity to reexamine Zetterstedt's type. His description is explicitly based on one female specimen from the inn Garnes at Verdal in Norway. According to Mr. Hugo Andersson there are, however, two specimens from Garnes, both female, in Zetterstedt's collections. He has kindly sent me the better preserved one. The remnants of the other specimen are stated (Anderson *in litt.*) to include only one leg and parts of the thorax. The first specimen is certainly conspecific with the female from Laisaliden. Allowing for the extensive sexual dimorphism in the genus, these females are in non-sexual characters sufficiently similar to the male from Nuolja to make their conspecificity all but definite. This male, in turn, is most certainly identical with the species known from the Alps, according to the figures of its hypopygium presented by Becker and Parent. I am, therefore, tolerably convinced of the correctness of Strobl's and Becker's synonymisation. At least it has been raised to one higher level of certainty.

X. albifrons is thus, besides from Sweden and Norway, known from the French and the Swiss Alps.

Systenus scholtzii Lw — *Sk.* Lund, 1 ♂ 17.VI.1961 (Hugo Andersson). In coll. H. Andersson.

This is an utterly characteristic species possible to identify for instance with the key of Parent (1938).

S. scholtzii has been reported from Germany and the British Isles.

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