HELOPHORUS APFELBECKI KNISCH A GOOD SPECIES by Robert Angus

In 1910 Knisch (Kniž) described H. nivalis apfelbecki from the mountains of eastern Albania, giving the locality as Golešnica Jezero. Hansen (1999) identified this locality as Jacupica in Macedonia. The Gizi map of the Republic of Macedonia shows Jacupica as a synonym of Mokra for a mountain range south-west of Veles in Macedonia, with Golešnica as another mountain range, slightly further north. The whole area is due south of Skopje. I have not been able to locate the lake (Jezero), but in any event this is not an Albanian place name, so the Macedonian origin of the material may be presumed correct. Knish described apfelbecki as larger, more elongate and flatter than typical H. nivalis, and mentioned that material from Durmitor in Montenegro was intermediate between apfelbecki and normal nivalis. Angus (1985), having been unable to locate any material of H. nivalis apfelbecki, synonymised it with nivalis, basing this decision on Knisch's mention of the intermediate specimens from Montenegro.

In the course of our 2007 trip to Macedonia (Latissimus 24 21 - 24), David Bilton took five male specimens of H. apfelbecki in some small pools above Crno Ezero in the Šar Planina mountains of northwest Macedonia, at an altitude of about 2160 m. The pools were dry at the time, and David got the material by pouring water into them. These beetles are identified as H. apfelbecki from Knisch's description, and from the aedeagophore (Figure 1). They appear so unlike H. nivalis that I am unable to regard them as conspecific. I have not seen material from Durmitor, Montenegro, but would certainly be interested to do so!

The general appearance of the beetles is like a large H. flavipes Fab. or a smallish H. aquaticus (L.). They range in length from 3.9-4.4 mm, the legs and maxillary palpi are dark brown and the apical segment of the palpi is small, not quite symmetrical. The head and pronotum are metallic blackish bronze, the stem of the Y-groove on the head expands anteriorly, and the antennae are nine-segmented. The pronotum is flat, like that of *H. glacialis* Villa, weakly arched, the grooves narrow, fairly shallow. The internal and middle intervals are punctate, the externals weakly granulate. The elytra vary from being coloured as the pronotum to very dark brown with traces of even darker mottling. The sides of the elvtra are rounded and the flanks are broadly visible from below, and form a distinct ledge along the sides of the elytra when viewed from above. The elytral striae are strong and the punctures are connected by narrow grooves in the apical half of the elytra. Interstices 2 and 4 are somewhat raised in the basal third of the elytra, and are about twice the width of the striae. The other interstices are about 1.5 times the width of the striae. The aedeagophore (Figure 1) is broadly similar to that of H. nivalis, but a little larger.



H. apfelbecki

Figure 1 Helophorus apfelbecki aedeagophore Scale line = 0.5 mm The form of the aedeagophore might suggest that *H. apfelbecki* is a form of *H. nivalis* but it should be noted that *H. fauveli* Ganglbauer also has this type of aedeagophore, but appears to be a completely different species, and the aedeagophores of *H. leontis* Angus, *H. dixoni* Angus and *H. biltoni* Angus are also inseparable from one another, though the beetles are shown by their chromosomes to be clearly different species (Angus *et al.* 2005).

The somewhat asymmetrical apical segment of the maxillary palpi would probably result in it being keyed as a member of the subgenus *Rhopalhelophorus* in my book (Angus 1992), in which case it would run to *H. splendidus* J. Sahlberg, a high arctic species with a different aedeagophore and much narrower and shallower pronotal grooves. If the material was keyed as an *Atracthelophorus*, it would run to *H. confrater* Kuwert, but the pronotum and aedeagophore are different.

References

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