

On the distribution of *Helophorus confrater* Kuwert, 1886 in the Eastern Carpathians (Coleoptera: Hydrophilidae)

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Ryndevich, S.K. 2000. On the distribution of *Helophorus confrater* Kuwert, 1886 in the Eastern Carpathians (Coleoptera: Hydrophilidae). *Zoosystematica Rossica*, 8(2), 1999: 311-312.

H. confrater Kuw. is recorded from several additional localities in the Eastern Carpathians. The distinguishing characters, distribution, and ecology of this species are discussed.

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Helophorus confrater Kuw. was recorded from the Eastern Carpathians, Ukraine by Kinel (1935). He examined 14 specimens collected from the Chernahora Massive in July. This rare species is found now in the material collected in the Carpathian Nature National Park (Eastern Carpathians, Ukraine). Additional specimens from the Eastern Carpathians (Mt. Hoverla) identified by R.B. Angus are preserved in the collection of the Zoological Institute, St.Petersburg (ZIN).

Helophorus confrater Kuwert, 1886 (Figs 1-3)

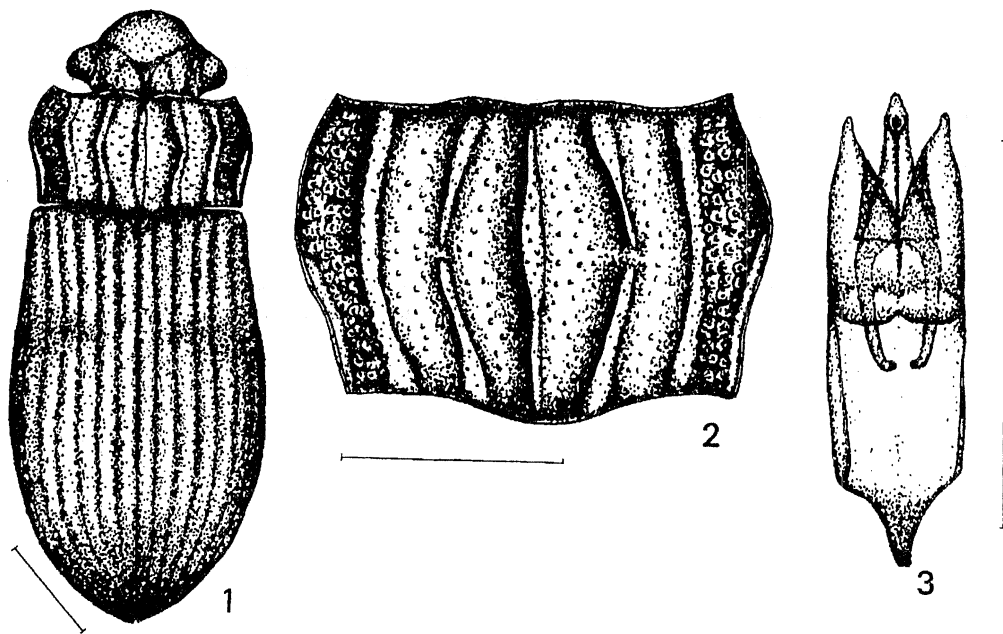
Material examined. **Ukraine**, *Ivano-Frankovsk Prov.*: Yaremcha, Mt. Pogor, 2.V.1992, 8 specimens, and Mt. Yavor, 4.V.1992, 10 specimens (leg. Dzhus); "confrater Kuw. Hoverla, Galicia, Stobiecki", "Ex Ganglbauer", "coll. Zaitzev", 1 ♂ (ZIN, det. R.B. Angus); "Czornahora, m. Kowerla [sic], 2080 m, Karpathy or., A. Ogloblin, 1927", 1 ♀ (ZIN, det. R.B. Angus).

Description. Dorsal side of body (Fig. 1) weakly convex, shiny. Head and pronotum black with greenish and bronze or copper reflections. Basal and lateral parts of head weakly granulate. Stem of Y-shaped groove weakly dilated in front. Antennae yellowish with brown club. Maxillary palpi yellowish; apical segment symmetrical oval or asymmetrical (in specimens from the Eastern Carpathians, asymmetrical with obtuse apex), brown at apex. Pronotum transverse, evenly arched, widest in middle. Sides of pronotum straightened or weakly sinuated basally. External intervals weakly granulate, internal

and middle intervals evenly punctate. Grooves not deep, with sparse punctuation. Submedian grooves broken in middle in some large specimens from the Carpathians (Fig. 2), a peculiarity not noticed in *Helophorus* before. Apex and basal part of middle groove or only its apex strongly narrowed. Scutellum small. Elytra dark brown with slight greenish copper reflection, widest in middle third, with nine striae of deep punctures. Intervals of punctate striae evenly convex. Ventral side black or dark brown. Elytral flanks visible from below. Legs yellowish brown; tarsi brown. Aedeagophore as in Fig. 3. Length of male 2.8-3.3, of female 3.0-3.9 mm.

Distribution. The species was described from two specimens presumably collected in "Hungaria meridionalis". If the latter information is correct, the type locality is rather the current Croatia (former part of the Hungarian Kingdom), not the current territory of Hungary in which high mountains are absent. The species was recorded later from the Rhodope and Rila Mountains in Bulgaria (Angus, 1985, 1993), Tatry in Poland (Burakowski et al., 1976), Moravia in the Czech Republic (Říha & Jelinek, 1993), and the Eastern Carpathians in the Ukraine.

Ecology and phenology. *H. confrater* is a mountain species; it was found in pools and creeks of streams. It was not found by me in these habitats in the Eastern Carpathians (Yaremcha) in June, July and August, though Kinel (1935) reported on specimens collected in July.



Figs 1-3. *Helophorus confrater* Kuwert: 1, dorsal view; 2, pronotum with submedian grooves broken in middle; 3, aedeagophore. Scales: 0.5 mm.

Comments. Angus (1985, 1993) distinguished the nominotypical subspecies, *H. c. confrater*, and the subspecies *H. c. knothyi*, the latter was described by Ganglbauer (1901) as a variety from the Rhilo Dagh [= Rila Mts] in Bulgaria; 1 ♀ from this locality identified by R.B. Angus from the ZIN collection was examined by us. Most examined specimens from the Eastern Carpathians have characters of the typical form, but one male has characters of *H. c. knothyi*: body broader, lateral sides of pronotum evenly rounded, external intervals not granulate. Probably this form is merely a variety. Examination of specimens from the Southern Carpathians (Romania) and Stara-Planina (Bulgaria), where the species apparently will be found, may help in clarification of the status of *H. c. knothyi*.

Acknowledgements

I thank M.A. Dzhus (Belarus State University, Minsk) for specimens of *Helophorus* from the Eastern Carpathians and I.M. Kerzhner (Zoological Institute, St.Petersburg) for bibliographic and geographic consultations.

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Received 12 March 1999