

New distribution records of two water scavenger beetles (Coleoptera, Hydrophilidae) from Rebun Island, Hokkaido, Japan

Atsushi Kato

Department of Applied Chemistry and Bioscience, Faculty of Engineering, Kanagawa Institute of Technology, 1030 Shimo-ogino, Atsugi, Kanagawa, 243–0292 Japan.

e-mail: kato_expert_sky@yahoo.co.jp

Abstract

Two Hydrophilidae species, *Hydrobius fuscipes* (Linnaeus, 1758) and *Laccobius (Microlaccobius) oscillans* Sharp, 1884, were newly recorded on Rebun Island, northern Hokkaido, Japan, based on specimens collected in July 2025. *Hydrobius fuscipes* represents the first record from the island and was collected from a shallow spring-fed pool in Lake Kushu, whereas *L. oscillans* was found in a small stream flowing directly into a rocky coastal area. These records add two freshwater hydrophilid species to the known fauna on Rebun Island.

Key words: *Hydrobius fuscipes*; *Laccobius (Microlaccobius) oscillans*; freshwater; insect fauna

Only five species of water scavenger beetles (Hydrophilidae) have been reported from Rebun Island: *Cercyon (Cercyon) algarum* Sharp (Suzumura et al. 2022), *C. (C.) aptus* Sharp (Ôhara 2008; Suzumura et al. 2022), *C. (C.) dux* Sharp (Ôhara 2008; Suzumura et al. 2022), *C. (C.) numerosus* Shatrovsky (Suzumura et al. 2022), and *Enochrus (Holcophilydrus) simulans* (Sharp, 1873) (Kashizaki 2026). Of these, four species belong to the supralittoral genus *Cercyon*, and the only

freshwater species recorded to date is *E. (H.) simulans*. In July 2025, the author conducted a brief field survey of aquatic insects on Rebun Island, during which two freshwater hydrophilic species were collected. This short paper reports on these species for the first time on the island. The examined specimens will be deposited in the collection of the Kitakyushu Museum of Natural History and Human History. Water temperature was measured using a Tetra Digital Water



Fig. 1. *Hydrobius fuscipes* (Linnaeus, 1758) from Rebun Island. (a) dorsal habitus ♀ (Scale bar 1.0 mm); (b) habitat of *H. fuscipes*.

Thermometer BD-1 (Spectrum Brands Japan, Yokohama, Japan).

Family HYDROPHILIDAE Latreille, 1802

Subfamily Hydrophilinae Latreille, 1802

***Hydrobius fuscipes* (Linnaeus, 1758) (Fig. 1a)**

1♀, Japan: Hokkaido, Rebun-cho, Funadomari (45°25'47.4"N, 141°01'53.9"E), alt. ca. 4.8 m, 10 Jul. 2025, water temperature 20.7 °C, Atsushi Kato leg.

Note. According to Shimonaka et al. (2024), *H. pauper* Sharp, 1884, which had previously been considered to occur in Hokkaido, is now confirmed to be absent from Hokkaido, and only *H. fuscipes* is widely distributed. Among the islands surrounding Hokkaido, *H. fuscipes* have previously been recorded only on Kunashir Island (Revinsky and Angus 2020; Ryndevich et al. 2021) and Yakeshiri Island (Shimonaka et al. 2024). The specimen examined from Rebun Island represents the first record of the genus *Hydrobius* on the island and was identified as *H. fuscipes* based on the identification keys provided by Ryndevich and Angus (2020) and Shimonaka et al. (2024). Diagnostic features confirming this identification include the arrangement of large punctures (with trichobothria) in the anterior half of the elytra and the pubescent portion of the metafemur

exceeding 65 % of its length. On Kunashir Island, this species has been collected from shallow shore zones of lakes, rivers, and wetlands, including coastal marshes, as well as from wet soil and decomposing aquatic plants along the shore (Ryndevich et al. 2021). Little information is available on the habitats of this species in Japan. The specimen was collected from a shallow pool (approximately 2 cm deep) within a reed bed along a footpath near Lake Kusyu on northern Rebun Island (Fig. 1b).

***Laccobius (Microlaccobius) oscillans* Sharp, 1884 (Fig. 2a)**

2♂♂, 3♀♀, Hokkaido, Rebun-cho, Kafuka (45°17'41.6"N 141°02'41.3"E), alt. 3.8 m, 10 Jul. 2025, water temperature 22.1 °C, Atsushi Kato leg.

Note. This species was identified based on the identification keys provided by Gentili (1995), Kamite et al. (2007), and Nakajima et al. (2020). The male genitalia of the examined specimens (Fig. 2b) are consistent with the illustrations in Gentili (1995). This species was observed during field sampling in a shallow, grass-covered stream, approximately 1 m wide, that flowed into a rocky beach within a few meters (Fig. 2c).



Fig. 2. *Laccobius (Microlaccobius) oscillans* Sharp, 1884 from Rebun Island. (a) dorsal habitus ♂ (Scale bar 1.0 mm); (b) aedeagus, dorsal view (Scale bar 0.25 mm); (c) habitat of *L. (M.) oscillans*.

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