

## Remarkable morphological characteristics of *Milnesium* sp. from Inhovde, East Antarctica

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Biological explorations focusing on tardigrades were carried out in the 56th Japanese Antarctic Research Expedition. Several terrestrial plant samples including mosses, lichens and algae were examined in the field lab using stereomicroscopes and many tardigrades were found. Specimens were mounted on slide glasses with Hoyer's gum chloral solution and examined by a DIC microscope. Here we report about two adults of *Milnesium* sp. found from the moss sample collected in Inhovde (69°51'S, 37°06'W), East Antarctica. This area has been explored by biologists for the first time. Measurements of the specimen 1: body length, 899.8 µm; buccal tube length, 64.1 µm; buccal tube width, 17.2 µm; stylet support insertion point, 39.6 µm; primary branch length of claw IV, 24.9 µm. Specimen 2: Body length, 814.8 µm; buccal tube length, 63.1 µm; buccal tube width, 21.0 µm; stylet support insertion point, 37.9 µm; primary branch length of claw IV, 26.4 µm. The most remarkable feature of these specimens is observed at the secondary branch of double claws of each leg, having 5 or 6 points (hooks) on each branch. Almost all described species in this genus have 2 or 3 points (Michalczyk, et al., 2012). There is a species, *Milnesium quadrifidum* Nederström, 1919, described with diagnosis of 4 points on each secondary branch, although this species was once considered as a form within *M. tardigradum* Doyère, 1840 (see Marcus, 1936) and has been neglected so far. The similar morphological trait as the milnesiid from Inhovde has also been reported from several areas within the East Antarctic region. The specimens from Langhovde (Sudzuki, 1964) showed 2–5 points on the secondary branch. The specimens from Evening Mountain (67°39'S, 46°06'E), near Molodeznaya Station, Enderby Land, also have variably 4–7 points on the secondary branch, mostly 5–6 points; while typical specimens with 3 points were reported from King George Island (Dastyh, 1984). *Milnesium antarcticum* Tumanov, 2006 described from King George Island also has 3 points. Therefore, the milnesiid in East Antarctica with 5–6 points on the secondary branch apparently belongs to a different taxon from all the other milnesiids reported so far worldwide. Probably the same species was also recorded from a nunatak (74°34'S, 11°01'W, altitude 1757 m) in Heimefrontfjella, Dronning Muad Land (Sohlenius et al., 1996). In addition to the taxon we are reporting, some other milnesiids including *M. antarcticum* might colocalize in East Antarctica because a '*M. tardigradum*' with 3 points on each secondary branch was recorded from Molodeznaya (Utsugi and Ohyama, 1991).

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