
Distribution of the genus *Boeckella* (Copepoda: Centropagidae) at high latitudes in South America and the main Antarctic biogeographic regions

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Abstract

Copepods are present in almost all aquatic environments, playing a key role in food webs, and are thought to be useful indicators of environmental change. *Boeckella* is a calanoid copepod genus distributed mainly in the Southern Hemisphere, with 14 species reported exclusively from higher southern latitudes. We present an updated database of these 14 species of *Boeckella* generated from a combination of three sources: 1) new field sampling data, 2) published records, and 3) Global Biodiversity Information Facility (GBIF), to provide a comprehensive description of the geographic distribution of the genus south of latitude 40°S in southern South America and the three-main terrestrial biogeographic regions of Antarctica. The database includes 380 records, 62 from field sampling, 278 from the literature and 40 from GBIF records. Southern South America, including Falkland/Malvinas Islands, had the highest richness and records (14 and 297), followed by the sub-Antarctic islands with 34 records and five species, South Orkney Islands (15 and 2), South Shetland Islands (23 and 1) and finally a single species (*B. poppei*) recorded from the Antarctic Peninsula south to Alexander Island and continental Antarctica. This latter species is the only representative of the genus, and more widely the only terrestrial/freshwater invertebrate, currently reported from all three main biogeographic regions in Antarctica (sub-, maritime and continental Antarctic). Future development of molecular systematic studies in this group should contribute to assess the correspondence between morphological taxonomy and molecular evolutionary radiation.

Keywords: Antarctica, Calanoida, freshwater ecosystems, sub-Antarctic islands, Patagonia

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