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Freshwater Amphipods from Barrow Island, Western Australia

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ABSTRACT. Amphipods collected from bore-holes and caves on Barrow Island, Western Australia are reported. Seven new species of the family Melitidae, genus *Nedsia* Barnard & Williams, 1995, and one of the family Bogidiellidae, genus *Bogidomma* n.gen., are described. A key to the species of *Nedsia* is provided.

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Unlike many other areas of the world, gammarid amphipods have not often been reported as components of Australian subterranean freshwater faunas (Williams, 1986; Holsinger, 1994). Recent reports from Western Australia (Humphreys & Adams, 1991; Knott, 1993; Barnard & Williams, 1995), Tasmania (Horwitz, 1988; Eberhard *et al.*, 1991), New South Wales (Eberhard, pers. comm.), and Queensland (Barnard & Williams, 1995) indicate that there is, in fact, a significant and diverse amphipod component among aquatic stygofauna over a wide area of the continent. Moreover, this diversity appears to extend over the coastally located underground waters (e.g., anchialine caves; Bradbury & Williams, 1996). This communication reports a further eight new species of amphipod taken from underground waters of Barrow Island, Western Australia.

Barnard & Williams (1995) describe a mono-specific melitid amphipod genus *Nedsia* from underground waters of North West Cape, Western Australia. Extensive collections on Barrow Island (geologically, an isolated section of the Cape Range and located some 55 km off the coast of Western Australia at 20°46'S 115°24'E), reveal eight species within underground water systems there. Several are unique, some damaged, but nevertheless described here. Conditions of collection prevailing on Barrow Island preclude re-examination of some sampling sites as many are temporary boreholes, or the fauna has been destroyed as part of the programme of electrolytic protection undertaken in oil drilling procedures. Seven new hadziid species and one new species of bogidiellid are described. Bogidiellids have not previously been recorded from Western Australia, the only other Australian record being from Heron Island, Queensland (Stock, 1984).

Methods of Dissection and Description

Methods of dissection and description closely follow those of Williams & Barnard (1988) and Barnard & Williams (1995) except in the use of upper case letters to indicate right or left.

The notation **M**, with an appended number, indicates the position of an object as a fraction of the distance