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The Tasmanian Mountain Shrimps, *Anaspides* Thomson, 1894 (Crustacea, Syncarida, Anaspididae)

SHANE T. AHYONG

Australian Museum Research Institute,
Australian Museum, 1 William Street, Sydney NSW 2010, Australia, and

School of Biological, Earth & Environmental Sciences,
University of New South Wales NSW 2052, Australia

shane.ahyong@austmus.gov.au

ABSTRACT. The Tasmanian mountain shrimps of the genus *Anaspides* Thomson, 1894 (Syncarida: Anaspididae), are endemic to Tasmania and often regarded as "living fossils" owing to the retention of numerous putatively plesiomorphic eumalacostracan traits and minimal morphological change since the Triassic. All live in cold, usually high altitude fresh-waters. Until recently, only two species were recognised: the presumed widespread *A. tasmaniae* (Thomson, 1893) (type species) and *A. spinulae* Williams, 1965a, from Lake St Clair, whose validity was frequently questioned. Independent morphological and molecular studies revealed previously unrecognized taxonomic diversity, resulting in preliminary descriptions of three new species in 2015. *Anaspides* is revised based on extensive collections from throughout Tasmania. Telson structure and male secondary sexual characters proved taxonomically instrumental. Seven species are recognized of which two are new to science; all are fully figured and morphological variation is discussed in detail. Rather than being widespread, *Anaspides tasmaniae* is restricted to Mount Wellington; *A. spinulae* is a valid species known only from Lake St Clair. Two species, *A. clarkei* Ahyong, 2015, and *A. eberhardi* sp. nov. occur only in caves of the Ida Bay-Hastings karst systems and Junee-Florentine systems, respectively. The three widest ranging species (*A. jarmani* Ahyong, 2015, *A. swaini* Ahyong, 2015, and *A. richardsoni* sp. nov.) are primarily epigean and each contains several morphological forms that might warrant further taxonomic subdivision. Distributions of species of *Anaspides* are largely discrete and broadly correspond to the biogeographical discontinuity known as Tyler's Line, dividing the drier eastern from the wetter western parts of Tasmania. Caves are believed to have acted as oligothermal refuges for *Anaspides* in the past, and it is notable that the specimens from the lowest altitudes today are all from caves, including the northernmost record of *Anaspides* (*A. richardsoni*, Great Western Cave, Gunns Plain, 109 m asl). Given the revised taxonomy of *Anaspides*, with significantly altered species distributions, the conservation status of all species of the genus requires review.

KEYWORDS. Crustacea; Anaspidacea; *Anaspides*; Tasmania; freshwater; shrimp.

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