

## New Silverfish Taxa from Queensland (Zygentoma: Lepismatidae)

GRAEME B. SMITH

Australian Museum, 6 College Street, Sydney, New South Wales 2010, Australia

Federation University Australia, PO Box 663, Ballarat Victoria 3353, Australia

[le\\_gbsmith@optusnet.com.au](mailto:le_gbsmith@optusnet.com.au)

**ABSTRACT.** A new genus and species of the silverfish subfamily Ctenolepismatinae and the first endemic species of the Lepismatinae are described from Queensland. A single male specimen of *Qantelsella louisae* n.gen., n.sp., was collected from dry leaf litter in Bladensburg National Park near Winton. *Xenolepisma monteithi* n.sp. is known from one adult female and two juvenile specimens collected with ants (*Crematogaster* sp.) from the bark of a tree on the Cape York Peninsula. This genus is also known from southern Africa, India and Malaysia and the diagnosis of the genus is emended to include the morphological differences exhibited by the Australian species.

**KEYWORDS.** Thysanura, taxonomy, new species, new genus, *Qantelsella*, *Xenolepisma*.

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Silverfish of the family Lepismatidae are quite common in Australia although in general poorly collected. This is possibly due to their cryptic habits combined with extreme speed and agility and their comparative fragility. Escherich (1905) described the first Australian lepismatid (*Acrotelsella producta* as *Acrotelsa producta*) from Peak Downs near Capella in the central highlands of Queensland. Silvestri (1908) described several Western Australian species belonging to the genera *Acrotelsella* Silvestri, 1935 (as *Acrotelsa* Escherich) and *Heterolepisma* Escherich, 1905, as well as a single specimen of *Anisolepisma* Paclt, 1967 (described as *Heterolepisma hartmeyer*). Nicholls & Richardson (1926) described a further two Western Australian *Acrotelsella* species. Womersley (1939) reviewed the Australian fauna, describing two South Australian species of *Acrotelsella* and, in 1942, a species of *Heterolepisma* from Lord Howe Island. The lepismatid fauna was largely ignored for the next 70 years, until recently when Smith (2013, 2014) described three new species of *Heterolepisma*; one from

Barrow Island, the others from eastern New South Wales.

Collection efforts by the author, as well as examination of some of the material in museum collections has indicated a much richer and diverse Australian fauna, with many undescribed species, dominated by the genera *Acrotelsella* and *Heterolepisma*. This paper will however describe the first Australian members of two genera that appear to be comparatively uncommon (see Fig. 1 for known locality data), one new and the other previously known from Africa and Asia.

### Materials and methods

Specimens were collected either by hand in leaf litter or by spraying the trunks of trees with a pyrethrum spray (Baehr, 1995). Locality co-ordinates for specimens were obtained using a hand held Garmin eTrex®10 GPS with a claimed accuracy usually under five metres. All specimens were stored in 75–80% ethanol. A mesothoracic leg was removed about two months after collection, placed in 100%