

## New perspectives on an Australasian mite (Acari: Mesostigmata; Laelapidae)

Matthew Shaw \*<sup>1</sup>

<sup>1</sup> Canterbury Museum [mshaw@canterburymuseum.com](mailto:mshaw@canterburymuseum.com)

Mites of the family Laelapidae have an extraordinary ecological range. While many Laelapidae are free-living predators in soil and leaf litter, others have forged many types of symbiotic relationships with birds, mammals, reptiles, insects, myriapods and arachnids. Phoretic and/or parasitic relationships are frequent within some groups. *Gymnolaelaps annectans* Womersley 1955 was described from shearwater burrows in Bass Strait, southern Australia. It was subsequently found in mainland Australia, Britain, Hawaii, the Azores, and New Zealand. Its initial genus placement and its subsequent transfer to the free-living genus *Pseudoparasitus*, was uncontroversial. This placement implied it was just another soil-based predator although having a curious habit of phoretically associating with nesting mammals and birds. Investigation of old museum specimens and nest habitats has uncovered two closely related species in Papua New Guinea and southern Australia. All three species have been placed together in a new genus, *Nidilaelaps* Shaw. A rather different interpretation of its biology and relationships is now necessary. The inferred relationships of all these species strongly suggest that this genus is an Australopapuan endemic. At least one species has spread to other landmasses secondarily, probably phoretically transported on synanthropic rodents.

