

Report of *Cosmophasis* feeding on butterfly eggs in Queensland (Araneae: Salticidae: Chrysillini)

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Abstract: A *Cosmophasis* female was observed feeding on the eggs of a nymphalid butterfly in Townsville, Queensland.

Key words: *Cosmophasis obscura*, *Cosmophasis thalassina*, egg predation, jumping spider, Lepidoptera, Nymphalidae, Townsville

Salticids exploit a variety of food sources in addition to their usual arthropod prey. Some feed on nectar (Nyffeler 2016; Nyffeler et al. 2016). Nectivory by the chrysilline *Phintella vittata* C. L. Koch 1846 has been described by Soren & Chowdhury (2011). Salticid spiders in turn may protect plants with extrafloral nectaries from their insect enemies (Ruhren & Handel 1999). Salticids are also known to feed on arthropod eggs or larvae (Jackson & Hallas 1986, Nyffeler et al. 1990). Grob (2015) documented feeding by the chrysilline *Siler semilgaucus* (Simon 1901a) on ant larvae taken directly from ant workers. Moffet (1991) photographed very small (~2 mm) *Phyaces comosus* Simon 1902 feeding on both eggs and young in a tended brood of the salticid spider *Epeus* Peckham & Peckham 1886. Many spiders including the salticid *Hentzia palmarum* (Hentz 1832) are known to feed on lepidopteran eggs (Pfannenstiel 2008) but photographic documentation of this behavior is lacking.

One of the authors (B. Donovan) recently observed and photographed a female *Cosmophasis* feeding on butterfly eggs in Townsville, Queensland, early in the morning of 8 April, 2017 (Figure 1). This spider was first observed on a leaf near a loose cluster of these eggs. It seized one of the eggs with its fangs, then pulled on that egg and beat on it with its pedipalps, apparently to dislodge it. This egg was then consumed as the spider remained in the immediate area. Feeding on four eggs was observed. The eggs in this cluster resemble those of *Danaus plexippus* L. (Lepidoptera: Nymphalidae), but were more conical and less ovoid than the eggs of that species. Since *D. plexippus* usually lay their eggs singly on milkweed of the genus *Asclepias* (Van Hook & Zalucki 1991; Sourakov 2008), it is likely that this was the egg cluster of a different nymphalid butterfly.

Cosmophasis Simon 1901 (Simon 1901b) is a predominantly Southeast Asian genus with many representatives in tropical Australasia (Hill 2010; Žabka & Waldock 2012). This female agrees somewhat with the original description of *C. obscura* (Keyserling 1882) as well as its recent redescription (Žabka & Waldock 2012), but the male of *C. obscura* has not been described. This may represent a light-coloured variety of the female *C. thalassina* (C. L. Koch 1846), as these are thought to be highly variable in colouration (Robert Whyte, pers. comm.). Assignment to *C. thalassina* is also supported by the presence of male *C. thalassina* at the same Townsville location (Figure 2).

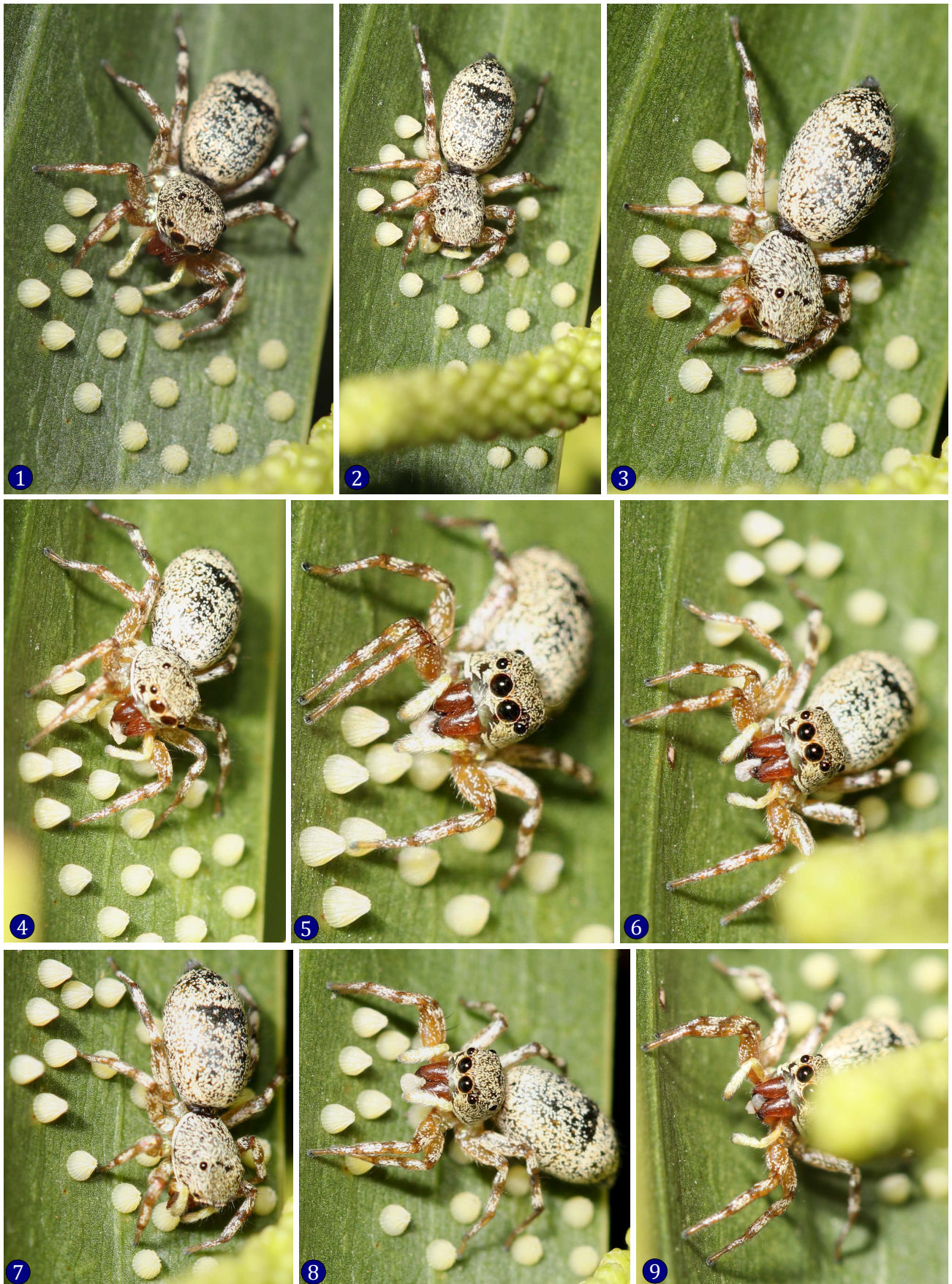


Figure 1. Sequential (1-9) photographs of a female *Cosmophasis* sp. feeding on butterfly eggs at Townsville, Queensland. Photographs copyright © Brian Donovan.



Figure 2. Two male *Cosmophasis* from Townsville. **1**, This one appears to be a penultimate male *C. thalassina*. **2**, Adult male *C. thalassina*. The pedipalps are white with black tips. Photographs copyright © Brian Donovan.

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