



Pacific Pests, Pathogens & Weeds - Mini Fact Sheet Edition

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Cryptognatha nodiceps (396)

Relates to: **Biocontrol**



Photo 1. Larvae of *Cryptognatha* of different ages among a large colony of coconut scale, *Aspidiotus destructor*.

Summary

- Widespread distribution. In Oceania, Fiji, French Polynesia, Northern Mariana Islands, Vanuatu. Preys on coconut scale (and other armoured scales, e.g., white peach scale. Eats up to 20 scales a day.
- Eggs laid under scale covers (after scale eaten). Larvae yellow, covered in waxy filaments (outgrowths). Adults, nearly round with black wing cases and brown heads.
- Said to be effective in Fiji (distributions made throughout country) and Jamaica against coconut scale, but poor results elsewhere. Not certain if still in Fiji.
- Biosecurity: need to assess risk before introduction as it is not specific to coconut scale.
- Cultural control: hot water to kill ants: 47°C (note, 49°C kills plants).
- Management: (i) move adults and larvae to colonies of pests; (ii) use sleeve cages to protect populations initially; (iii) avoid use of organophosphates, carbamates and synthetic pyrethroids; (iv) control ants: a) stomach poisons (fibronil, Amdro borax), b) growth regulators (methoprene, pyriproxyfen), c) nerve poisons (bifenthrin, fipronil, imidacloprid). See (<http://piat.org.nz/getting-rid-of-ants>).

Common Name

Coconut scale ladybird beetle. (No generally accepted common name found.)

Scientific Name

Cryptognatha nodiceps

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¹Swaine G (1971) *Agricultural Zoology in Fiji*. Her Majesty's Stationery Office. London; and ²Lopez VF *et al.* (2004) Biology and prey range of *Cryptognatha nodiceps* (Coleoptera: Coccinellidae), a potential biological control agent for the coconut scale, *Aspidiotus destructor* (Hemiptera: Disapididae). *Biocontrol Science and Technology* 14, 475-485. and Gordon RD *et al.* (1985) The Coccinellidae (Coleoptera) of America North of Mexico. *Journal of the New York Entomological Society* Vol.93(1). pp 1-912; and Vandenberg NJ (2002) Family 93 Coccinellidae Latreille 1807. In: 'American Beetles Volume 2'. Eds Arnett RH Jr *et al.* CRC Press: Baton Rouge, and Waterhouse DF, Norris KR (1987) *Biological Control Pacific Prospects*. Inkata Press; and from Pacific Invasive Ant Toolkit. (<http://piat.org.nz/getting-rid-of-ants>).

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