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Encyclopedia of Scale Insect Pests: Corrigenda and additions

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Abstract. The Encyclopedia of Scale Insect Pests was published in 2022 by CABI Publishing. Some errors and omissions in Chapter 2, Table 2 have been brought to the attention of the Encyclopedia editors; since some of them have plant quarantine implications, they are corrected in this article.

Key words. Hemiptera, Sternorrhyncha, Coccoomorpha, Coccoidea, Australasian region, Australia.

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Introduction

The Encyclopedia of Scale Insect Pests was published in 2022 by CABI Publishing (Kondo and Watson 2022). Some errors and omissions from Chapter 2, Table 2 have plant quarantine implications and therefore need to be corrected.

Materials and Methods

Errors in Chapter 2, Table 2 of the Encyclopedia were brought to our attention by Dr. Penny J. Gullan (Division of Ecology and Evolution, Research School of Biology, College of Science, Australian National University, Canberra, A.C.T. 2600, Australia) and Dr. Mark Schutze (Plant Biosecurity Laboratory and Queensland Primary Industries Insect Collection, Biosecurity Queensland, Queensland Department of Agriculture and Fisheries, GPO Box 267, Brisbane Qld 4001, Australia). Additionally, the review by Dr. Melinda L. Moir (Department of Primary Industries and Regional Development, South Perth, Western Australia, Australia) (Moir 2022) drew our attention to omissions of some distribution records.

All the “AU” records in Chapter 2, Table 2 of the Encyclopedia were reviewed against distribution records in García Morales et al. (2024) and the collections at the Systematic Entomology Laboratory, 10300 Baltimore Avenue, Beltsville, MD 20705, USA (USNM) and the Natural History Museum, London, UK (NHM), to clarify whether they referred to Australia, or only to other parts of the Australasian region.

Corrigenda and Additions

Page 8: the most significant error is in the heading for Table 2, where the geographical distribution of the listed pest species is indicated using two letters for each zoogeographical region. “AU” is defined as indicating the presence of a species in the “Australian” region when it should have been “Australasian” region. For clarification of the distribution data in Table 2, below is a list of species that occur in the Australasian region but have **not** been

recorded from the Australian mainland or Tasmania as of July 2024 (* denotes present on Christmas Island, which is an external territory of Australia in the Indian Ocean):

Family Aclerididae

Aclerda takahashii Kuwana, 1932

Family Asterolecaniidae

Russellaspis pustulans (Cockerell, 1892)

Family Coccidae

Anthococcus keravatae Williams and Watson, 1990

**Coccus celatus* De Lotto, 1960

Drepanococcus chiton (Green, 1909)

Milviscutulus pilosus Williams and Watson, 1990

Prococcus acutissimus (Green, 1896)

Pulvinaria floccifera (Westwood, 1870)

Pulvinaria mammeae Maskell, 1895

Saissetia miranda (Cockerell and Parrott in Cockerell, 1899)

Family Diaspididae

Aspidiella sacchari (Cockerell, 1893)

Aspidiotus excisus Green, 1896

Chrysomphalus pinnulifer (Maskell, 1891)

Duplaspidotus claviger (Cockerell, 1901)

Fiorinia phantasma Cockerell and Robinson, 1915

Fiorinia proboscidea Green, 1900

Genaparlatoria pseudaspidotus (Lindinger, 1905)

Family Monophlebidae

Icerya samaraia (Morrison, 1927)

Family Pseudococcidae

**Dysmicoccus finitimus* Williams, 1994

Hypogeococcus festerianus (Lizer and Trelles, 1942)

Planococcus lilacinus (Cockerell, 1905)

Pseudococcus jackbeardsleyi Gimpel and Miller, 1996

Pseudococcus saccharicola Takahashi, 1928

Family Rhizoecidae

Rhizoecus coffeae Laing, 1925

Family Kerriidae (= Tachardiidae)

**Paratachardina pseudolobata* Kondo and Gullan, 2007

**Tachardina aurantiaca* (Cockerell, 1903)

Corrections of additional errors in Table 2 are as follows:

Page 9: the distribution of *Ceroplastes rusci* (Linnaeus, 1758), should read **ET** (missing in the Table, but mentioned in the species account on p. 243), **PA**.

Page 10: the distribution of *Coccus pseudomagnoliarum* (Kuwana, 1914), should read **AU, NA** (not **NE**), **PA**.

Page 14: the distribution of *Aspidiotus chinensis* Kuwana and Muramatsu, 1931, should read **PA: China**

Page 20: *Rhizococcus coccineus* (Cockerell, 1894) is now *Acanthococcus coccineus* (Cockerell, 1894).

Page 23: the distribution of *Ferrisia dasyliirii* (Cockerell, 1896) should read **ET, NA, NT, OC, OR**.

Some additional distribution data (pointed out by Moir (2022)) are:

Chapter 4, page 173: the distribution of *Phenacoccus solenopsis* Tinsley, 1898, should include Australia (Victoria) (Commonwealth of Australia 2019), New Guinea (Gavrilov-Zimin 2013), Fiji (Jackson and Mua 2019) and Laos (Soysouvanh et al. 2015).

Discussion

These corrections and additions will be incorporated into the ScaleNet database (García Morales et al. 2024) in the near future. Concerning the geographical distribution information provided in the Encyclopedia, in her review Moir (2022) remarked that “problems arise when less nuanced workers do not investigate further and believe the encyclopedia to be completely comprehensive, thus potentially dismissing occurrence of *Ph. sole-nopsis* solely because their country has not been included in the known distribution”. Any hard-copy publication inevitably begins to go out of date from the moment it is published; users of the Encyclopedia who are looking for up-to-date distribution information should consult García Morales et al. (2024) online, as the ScaleNet database is regularly updated from the literature.

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The authors wish to thank Dr. Penny J. Gullan (Australian National University, Canberra, Australian Capital Territory Australia) and Dr. Mark Schutze (Queensland Department of Agriculture and Fisheries, Brisbane, Queensland, Australia) for drawing our attention to the error in Table 2 of the Encyclopedia, and in assisting with clarification of which species are not present in Australia. Thanks are due also to Dr. Penny Gullan and Dr. Natalia von Ellenrieder (Plant Pest Diagnostic Center, California Department of Food and Agriculture-CDFCA, California, USA) for reviewing the manuscript. We are most grateful to Dr. Scott A. Schneider (USDA, Agricultural Research Service, Henry A. Wallace Beltsville Agricultural Research Center, Systematic Entomology Laboratory, 10300 Baltimore Avenue, Beltsville, MD 20705, USA) for checking the identity of *Furchadaspis zamiae* (Morgan, 1890) specimens in the USNM collection, and to Ms. Diana Rendon Mera (Department of Life Sciences, the Natural History Museum, London, UK) for photographing *Aspidiella hartii* (Cockerell, 1895) specimens in the NHM collection for confirmation of their identity.

Literature Cited

- Commonwealth of Australia. 2019.** Final group pest risk analysis for mealybugs and the viruses they transmit on fresh fruit, vegetable, cut-flower and foliage imports. Available at <https://www.agriculture.gov.au/sites/default/files/sitecollectiondocuments/biosecurity/risk-analysis/group-pest/final-report-mealybugs-and-viruses.pdf> (Last accessed July 2024.)
- García Morales M, Denno BD, Miller DR, Miller GL, Ben-Dov Y, Hardy NB. 2024.** ScaleNet: a Literature-based Model of Scale Insect Biology and Systematics. Available at <http://scalenet.info> (Last accessed July 2024.)
- Gavrilov-Zimin IA. 2013.** New scale insects (Homoptera: Coccinea) from Sulawesi and New Guinea, with some other additions to the Indonesian fauna. *Tropical Zoology* 26(2): 64–86. <https://doi.org/10.1080/03946975.2013.807570>
- Kondo T, Watson GW. 2022.** Encyclopedia of scale insect pests. CABI; Wallingford, UK. 720 p. Available at <https://www.cabidigitallibrary.org/doi/10.1079/9781800620643.0005> (Last accessed July 2024.)
- Jackson G, Mua M. 2019.** Cotton Mealybug (373). *Pacific Pests and Pathogens—Full Size Fact Sheets*. Available at https://apps.lucidcentral.org/ppp/text/web_full/entities/cotton_mealybug_373.htm (Last accessed July 2024.)
- Moir ML. 2022.** Book review. *Encyclopedia of Scale Insect Pests*, Takumasa Kondo and Gillian W. Watson (Eds). 2022. *Austral Entomology* 61(4): 505–507.
- Soysouvanh P, Suh S-J, Hong K-J. 2015.** Faunistic study of the family Pseudococcidae (Hemiptera) from Cambodia and Laos. *Korean Journal of Applied Entomology* 54(3): 199–209.

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