

Australian Coccinellidae

History of research

The first Coccinellidae from Australia known to the outside world were collected by Joseph Banks and Daniel Solander during Captain James Cook's voyage in (1770–1771). They were described by Fabricius in 1775. Prior to the monographs of Mulsant (1850) and Crotch (1871), only a few further species were described by Macleay (1826), Boisduval (1832, 1835) and Erichson (1842). This period in taxonomy of ladybirds was summarised in the catalogue of the Australian Beetles (Masters 1888) in which 47 species of Coccinellidae were recorded.

Subsequent to Masters' catalogue, three workers described the bulk of ladybird species currently known from Australia (Pope 1989). These were Thomas Blackburn (1889–1895), a Church of England clergyman who emigrated to South Australia and who described 135 new species and several new genera; Arthur Lea (1897–1929), Australian born and variously a government and museum entomologist and university lecturer, added 41 new species; and Julius Weise (1885–1927), a German school teacher, described a further 30 species and three new genera. Blackburn had a close connection with Albert Koebele, a USDA entomologist who was sent to Australia in 1888 to collect natural enemies of cottony cushion scales. Blackburn described a lot of new species from his collection, now housed at the Bishop Museum in Honolulu (Timberlake 1943). After almost a 50 years break in activities on Australian Coccinellidae, Pope (1989) at the (then) British Museum (Natural History) revised species of Coccinellini while Li (1993) revised Australian Epilachnini. At this stage 265 species of Australian Coccinellidae were classified in 46 genera. The revisionary work on Australian Coccinellidae intended by R. Pope has been continued by me, with a revision of Sticholotidini (Ślipiński 2000) followed by papers on Telsimiini, Serangiini, Chilocorini and Sukunahikonini. This present monograph summarises our knowledge on Australian ladybirds and recognises 57 genera and 260 described species from Australia. With several ongoing projects on Scymnini, Diomini and Coccidulini, the number of known species will increase significantly in the next 2–3 years.

Composition of the Fauna

The Australian continent is home to a very diverse and species-rich component of the world ladybirds that is mostly endemic at species level. Of a total Australian Coccinellidae fauna estimated here at about 500 species (Ślipiński, unpublished), only about half (260 species) have been described. They are placed in 57 recognised genera. The estimate of total species is based on the material already available and sorted in the various institutional collections, plus allowances for unknown species in very poorly studied parts of Western Australia and Northern Territory. The size of the Australian fauna is comparable to that of North America (60 genera, 481 species — Gordon 1985; Vandenberg 2002) and India (80 genera, 480 species — Poorani 2002a) but, as already pointed out by Pope (1989), the taxonomic composition of the Australian ladybird fauna differs significantly from the norm for the world fauna, comprising a much higher percentage of Coccidulinae (Exoplectrini, Azyini, Coccidulini) and lower percentage of Epilachninae and Coccinellinae.