

# Revision of the bee subgenus *Amegilla* (*Asaropoda*) Cockerell, 1926 (Hymenoptera: Apidae) in New Guinea

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**ABSTRACT.** Bees of the subgenus *Amegilla* (*Asaropoda*) Cockerell, 1926 (Hymenoptera: Apidae) are large and conspicuous, but despite their nominally easy detectability, uncertainty persists as to their distribution in Southeast Asia. Considered to be endemic to Australia, New Guinea, and the Bismark Archipelago, little material evidence has been available to support their existence outside of Australia. Based on new revision of museum material, the presence of *Amegilla* (*Asaropoda*) *bombiformis* (Smith, 1854) on the island of New Guinea is positively confirmed, being present in Papua New Guinea (PNG) and newly reported from Indonesia (Papua). Three new species are described: *Amegilla* (*Asaropoda*) *angustissima* **sp. nov.** (PNG: Misima Island), *Amegilla* (*Asaropoda*) *ruficauda* **sp. nov.** (PNG: mainland and New Ireland), and *Amegilla* (*Asaropoda*) *sinewita* **sp. nov.** (PNG: New Britain). An identification key is presented to facilitate further study. This work increases the number of *Amegilla* (*Asaropoda*) species to 24, confirms their presence in New Guinea and the Bismark Archipelago, and adds to the emerging trend of substantial undescribed bee diversity on New Guinea and surrounding islands.

## Introduction

Bees of the subgenus *Amegilla* (*Asaropoda*) Cockerell, 1926 (Hymenoptera: Apidae) are large, robust, and often brightly coloured species that are predominantly found in Australia; currently, 21 species are known globally following recent revisionary work (Brooks, 1988; Leijs *et al.*, 2020; Wood & Bossert, 2025). All recognised species have to date been described from Australian specimens, but there is some uncertainty over the wider distribution of the subgenus. In the original description (as a genus), Cockerell (1926: 216) included just two species and wrote that the type species *Amegilla bombiformis* (Smith, 1854) was Australian, but no other distributional information was mentioned. In his global subgeneric reclassification of *Amegilla*, Brooks (1988: 511) wrote, when discussing the subgenera *Notomegilla* Brooks, 1988 and *Asaropoda*: “In addition, *Notomegilla* is restricted to Australia and *Asaropoda* to Australia, New Guinea and the Bismarck Archipelago”. However, the publications or

records underpinning this statement are obscure. Leijs *et al.* (2020: 46, 53) repeated this information but did not provide any precise citations to support the position of Brooks (1988).

Working back chronologically through the literature, Michener (1965: 217) also repeats the statement that *Asaropoda* is present on New Guinea without precise information. Rayment (1951: 73) wrote for *A. bombiformis*: “Binaturi River, New Guinea? Included by Cockerell. This last recorded by Cockerell, but ... must be considered doubtful, since [Cockerell] had more than one species”. I have been able to trace the work of Cockerell (1931: 34) who wrote for *A. bombiformis*: “Also Binaturi River in New Guinea”, but without precise information. Moving back further, Lucas (1915: 133) wrote for *Saropoda bombiformis*: “von Binaturi R., Papua”, providing a citation for Cockerell (1914). It is in this work that Cockerell (1914: 468) gives precise information for *A. bombiformis*, writing: “♀.—Binaturi R, Papua, March 1913 (*S. H. M.* ; Froggatt coll. 216 c). Agrees with Australian specimens”. It is unclear where

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