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A NEW SPECIES OF RED-LEGGED *PISON* IN AUSTRALIA (HYMENOPTERA, CRABRONIDAE, TRYPOXYLINI)

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Abstract.—A new species of *Pison* from Australia is described and illustrated. Comparisons with related species are given.

Key Words: Wasp, red

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In 1988 the late Henry Townes invited me to visit his institute in Gainesville, Florida, to curate his collection of sphecoid wasps. I found a number of interesting species while curating, among which was an unusual *Pison* from Australia. The species was largely reddish and the female had a psammophore. A very unusual creature. Later the same year Ian Naumann of the Australian National Insect Collection, Canberra, Australia, sent me a few *Pison* that were quite colorful. Three of the specimens were conspecific with the Gainesville species. This unusual *Pison* is described below in order to make the name available to Wojciech Pulawski who is revising the Australian species of *Pison*. The Australian fauna of this genus contains many species which display a diverse morphology.

Materials and Methods

Terminology used is taken from *Sphecid Wasps of the World* published by Bohart and Menke in 1976. Images for plates were taken with an EntoVision micro-imaging system. This system consists of a Leica M16 zoom lens attached to a JVC KY-75U 3-CCD digital video camera that feeds image data to a desktop computer. The program Archimed 5.3.1 is then used to merge an image series (representing typically 30-50 focal planes) into a single in-focus image. Lighting was provided by an EntoVision dome light.

Pison amabile Menke, n. sp.

(Figs. 1–9)

Holotype female.—Entire body and legs amber colored except flagellomeres IV–X, frons, vertex and back of head black, arolia black, tergum III black laterally, IV black laterobasally, sternum III narrowly black laterally, IV largely black; wing veins and membrane amber colored except apical third of forewing and tip of hindwing moderately infuscate with dark brown veins. Prementum amber, polished. Head and thorax with short appressed gold setae,

Fig. 1. Left profile of female *Pison amabile*.

Fig. 2. Left wings of *Pison amabile*.

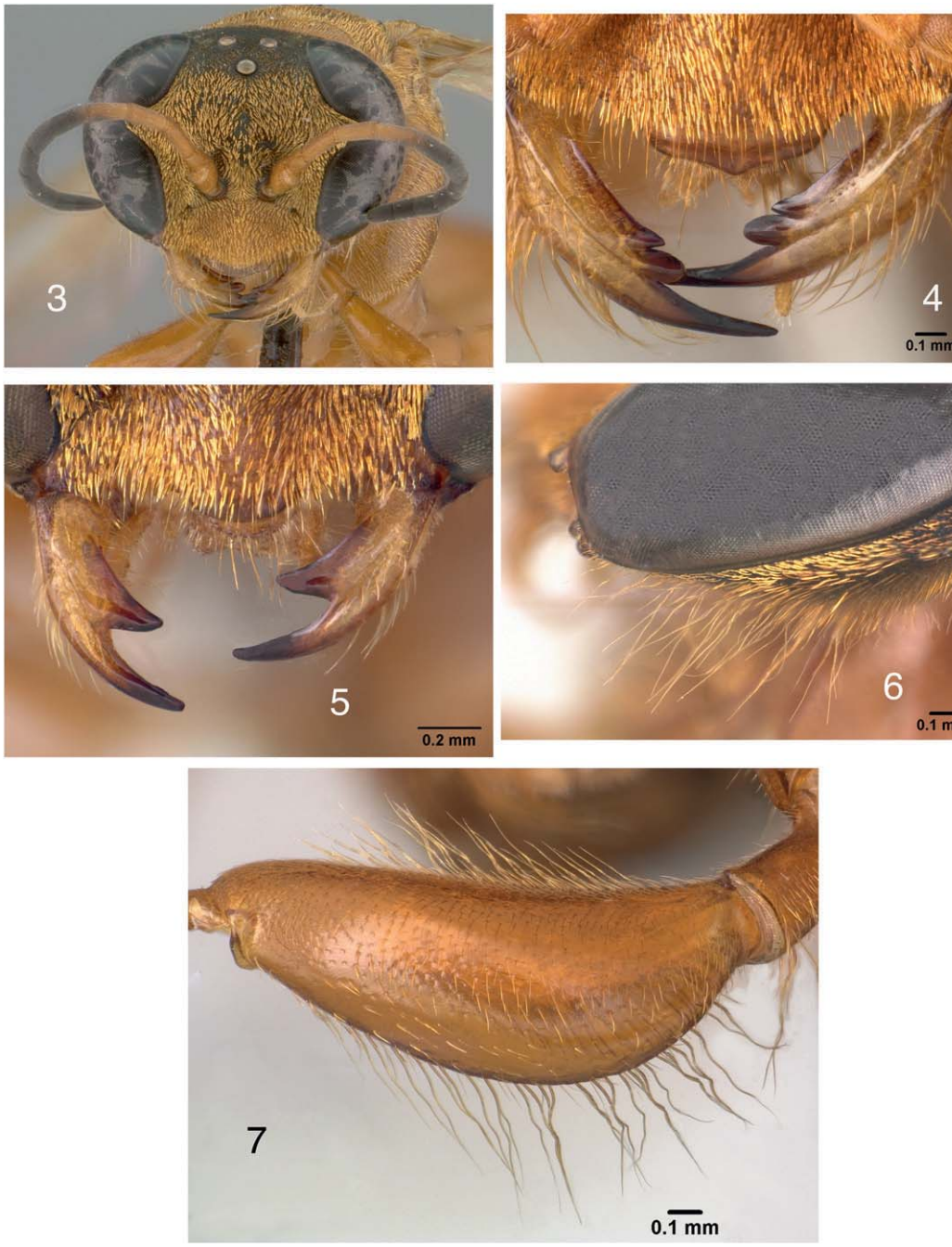


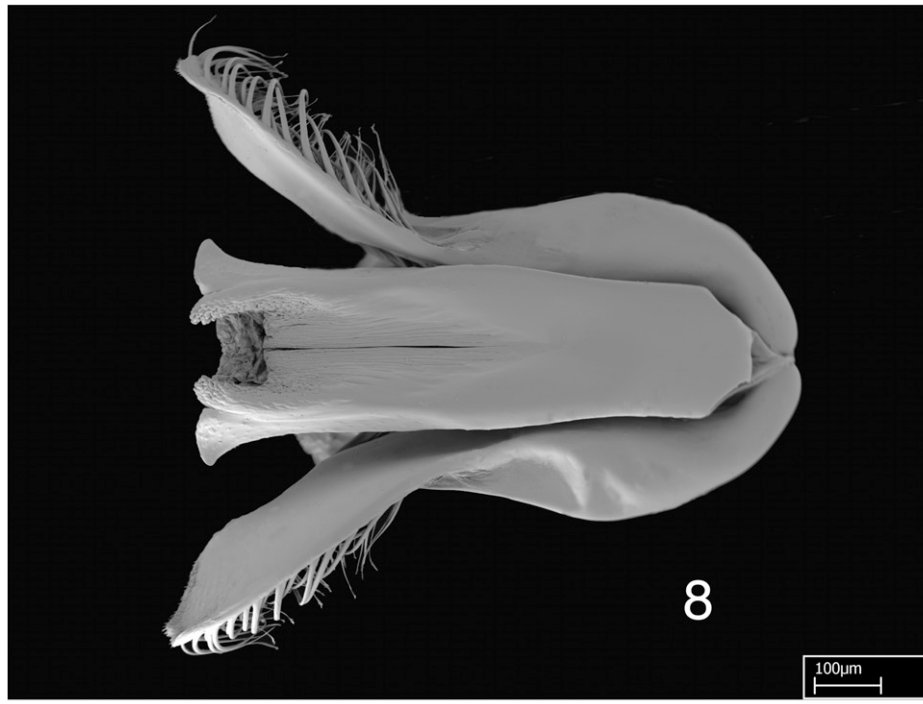
Fig. 3. Frontal view of female head, holotype of *amabile*.

Fig. 4. Female clypeus and mandibles of *amabile*.

Fig. 5. Male clypeus and mandibles of *amabile*.

Fig. 6. Gena of female *amabile* showing psammophore setae.

Fig. 7. Forefemur of female *amabile* showing psammophore setae.



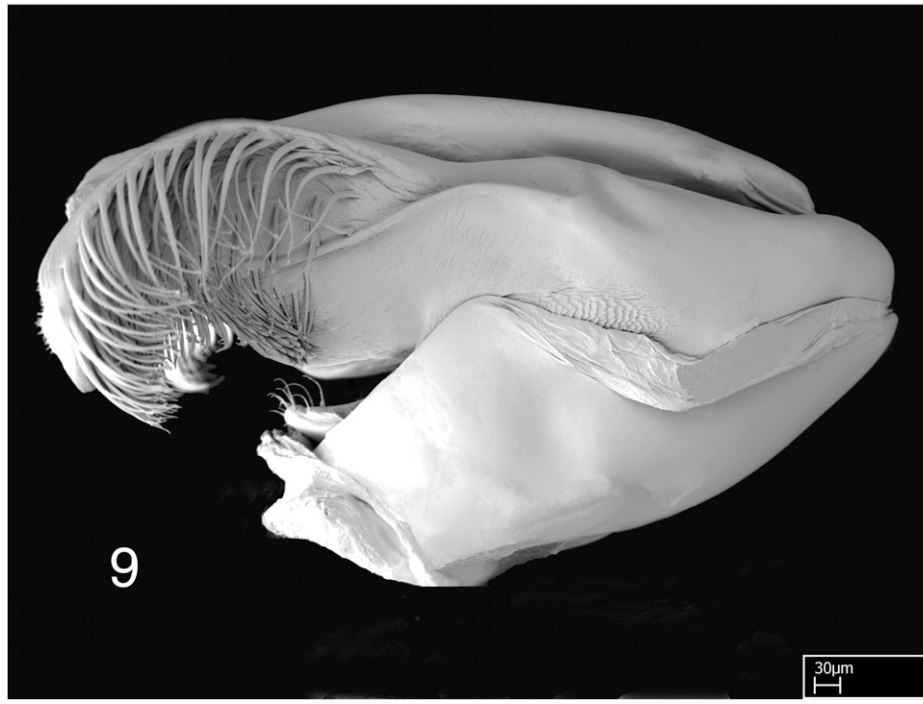


Fig. 8. Dorsal view of male genitalia of *amabile*.

Fig. 9. Lateral profile of male genitalia of *amabile*.

dense on frons and clypeus obscuring sculpture; long, erect, gold psammophore setae present along lower edge of mandible (Figs. 3–4), lower part of gena (Fig. 6), on propleuron laterally, and on coxa, trochanter and femur of foreleg (Fig. 7).

Upper interocular distance 0.72X lower interocular distance; ocellocular distance equal to hindocellus diameter; head broad, eye length 0.85X distance between eye notches (fig. 3); frons and vertex densely punctate, punctures almost contiguous; flagellomeres elongate, I–III about equal in length which is about 2.25X apical width; clypeus with obtusely angular median lobe that is broadly impunctate and shiny (about as wide as midocellus) (Fig. 4), edge of clypeus thickened lateral to lobe; labrum hidden, arcuate, weakly notched at middle; mandible with two large teeth on inner (cutting edge) margin, apex sharply attenuate (Fig. 4); gena smooth, polished, and impunctate beneath psammophore; occipital carina narrowly interrupted opposite apex of hypostomal carina, the two separated by about a hindocellus diameter. Pronotum with large, shallow, transversely oval depression anteromedially that is margined posterad by transverse carina, depression about 2 hindocellus diameters wide and 1 diameter long; collar not carinate; scutum densely punctate, punctures nearly continguous; scutellar punctation similar to that of scutum except punctures somewhat more separated; mesopleuron, including hypoepimeral area, densely but somewhat more coarsely punctate than scutum; propodeum everywhere densely punctate, dorsum with fine median longitudinal carina, hindface with some transverse ridging near petiole socket, propodeal side not delimited dorsad by carina or pits. Gastral terga densely punctate, but punctures finer than those of scutum, punctation of sterna finer and much sparser than on terga. Dorsum of hindcoxa with strong inner and outer margining carinae; tarsomeres II–IV with plantulae. Forewing with three submarginal cells, second receiving both recurrent veins although first is interstitial on left wing (Fig. 2); forewing media interstitial with cu-a. Length 10.75 mm.

Female variation.—The three paratype females differ from the holotype as follows: scutum black except in front of tegulae; upper interocular distance is 0.74–0.76X lower interocular distance; eye length is 0.83–0.84X distance between eye notches; length is 9.5 mm.

Male.—Similar to holotype except for following: scutum black, scutellum black laterally; black on tergum III more extensive, amber color restricted to discal one fifth; psammophore setae shorter, especially on forefemur; upper interocular distance 0.95X lower interocular distance; ocellocular distance 1.31X hindocellus diameter; eye length 0.87X distance between eye notches; flagellomeres I–III each progressively shorter, length of I about twice width, III about one and three fourths as long as wide, flagellum without tyli or other specializations; mandible with one very large tooth on cutting edge (Fig. 5); tergal punctation almost as coarse and dense as on scutum, sternal punctation finer, sparser, punctures 2–3 diameters apart; sternum VIII truncate apically but corners broadly rounded, apex weakly notched, disk of sternum VIII swollen; media of left forewing diverging slightly before cu-a; length 9 mm. Male genitalia as in figures 8–9.

Male variation.—The specimen form Mt. Ooraminna has an entirely amber thorax, and the gaster is amber except for a large black spot on tergum III. The only black on the male from Old Andado is the scutum and a spot on tergum III.

Types.—Holotype female: Australia, Northern Territory: Areyonga, 600m,

Dec. 8 no collector indicated (American Entomological Institute). Paratypes (2 females, 1 male): same location but collected September 28 and October 8 (American Entomological Institute). Other paratypes: Western Australia, Broome, 150 kms SE by E, 18.55 S, 123.14 E, August 13, 1976, I. F. B. Common (female, Australian National Insect Collection); Northern Territory, Simpson Desert, Old Andado H. S., September 30, 1972, A. Liepa (male, Australian National Insect Collection); Northern Territory, Mt. Ooraminna, 46 Km S. by E of Alice Springs, 24.065 S, 134.00 E, November 1979, Ian Naumann (male, Australian National Insect Collection).

Discussion.—The well developed psammophore, especially in the female (Figs. 6 7), and the polished, asetose lower gena are shared with only a few other species: *areniferum* Evans, *barbatum* Evans, and *ciliatum* Evans (Evans, 1981), all from Australia. Evans did not describe the condition of the teeth on the inner margin of the mandible of his species, but according to W. J. Pulawski who has examined *ciliatum*, the mandible lacks the two big teeth seen in *amabile*. These two teeth on the cutting edge are distinctive for female *amabile* (Fig. 4), a condition that is certainly uncommon in *Pison*. The polished triangular prementum is notable. The large innertooth of the male mandible is also distinctive (Fig. 5).

The largely red body (Fig. 1) and appendages make *amabile* conspicuous in a genus where the majority of species, including those of Evans′, are mostly black. The slight color variation noted in the description is an indication however, that over parts of its range *amabile* may prove to be more melanistic.

I assume that the psammophore indicates that *amabile* is a ground nesting species.

Etymology.—The species name is based on the Latin word amabilis which means lovely, a reference to the beauteous nature of this wasp.

Acknowledgments

I would like to thank David Wahl and the late Henry Townes of the American Entomological Institute, Gainesville, Florida, and Ian Naumann, of the Australian National Insect Collection for lending material.

David Wahl kindly made the color facial views of the holotype (Fig. 3) and other specimens for me. Wojciech Pulawski, California Academy of Sciences, San Francisco, CA generously gave me his color figures of my new species for use in this paper. (Figs. 1–2, 4–9)

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