The *boliviensis* holotype differs from her Panamanian counterparts in the following characters:

(1) Smaller size (HL, 0·66 mm. against 0·74–0·76 mm. in *angusticeps*), with relatively broad head (CI, 65 against 61–63) and node (petiolar node width, 0·61 times the mesonotum width against 0·55–0·57 times in *angusticeps*).

(2) Antennal scapes proportionately much shorter (SI, 109 as opposed to 130–132 in queens of *angusticeps*).

(3) Sculpturation similar in distribution and relative intensity on different parts of the body, but superficial punctures of head, mesosomal dorsum and node distinctly less clearly incised in *boliviensis*.

Mann reported the palpal formula as maxillary 3: labial 2. This observation was based on the undissected holotype, and only the visible segments were considered. After studying the specimen I believe that the true maxillary count is probably 4, as in other species of *Probolomyrmex*. The general proportions of the palpal segments are as described above for *P. angusticeps*.

Distribution.—Known only from the type locality, BOLIVIA: Rurrenabaque (*W. M. Mann*).

Biology.—The unique holotype was taken beneath a stone, near a small colony of *Ponera*.

Probolomyrmex petiolatus Weber (figs. 34, 35)

Probolomyrmex petiolatus Weber, 1940, *Psyche, Camb., Mass.* **47**, 76, fig. 1, ☿. Type locality: Barro Colorado Island, Panama Canal Zone. Holotype: N. A. Weber Collection (examined).

The unique holotype worker of this species is illustrated in figures 34 and 35. It has the following dimensions: HL, 0·51 mm.; HW, 0·36 mm.; SL, 0·29 mm.; CI, 71; SI, 81; WL, 0·65 mm.; PW, 0·27 mm.; dorsal petiole width, 0·14 mm.; petiolar node index, 52; petiole height, 0·27 mm.; petiolar node length, 0·23 mm.; lateral petiolar index, 85. Weber's original description adequately characterises this distinctive species. The worker of *P. petiolatus* differs from that of the sympatric *P. angusticeps* in its smaller size, with relatively broad head, much shorter scapes, and shorter, more compact petiolar node. The unknown worker of *P. boliviensis* is undoubtedly similar to *P. angusticeps* in these features.

Distribution.—Known only from the type locality, PANAMA: Barro Colorado Island.

Ecology.—The holotype was collected among leaves and humus on the rainforest floor.

VI. A SPECIES PROPERLY EXCLUDED FROM *Probolomyrmex*: (?) *Leptanilla palauensis* (M. R. Smith), **comb. n.**

Probolomyrmex palauensis M. R. Smith, 1953, *J. N.Y. ent. Soc.* **61** : 127–129, figs. 1–2. ♂. Type locality: S.W. of Ulimang, Babelthaup I., Palau Islands, Micronesia. Holotype: United States National Museum (examined).

This species was described from a single male collected without associated workers or queens. The general habitus is somewhat like that of the female castes of *Probolomyrmex*, but knowledge of the male of *P. greavesi* precludes the possibility that *palauensis* belongs in that genus.

A completely satisfactory generic assignment for *palauensis* is not possible at present. Inclusion in the Formicidae is acceptable on the basis of the nodal form and other general characters, although metapleural glands are not visible on the specimen. The presence of these organs is apparently a universal and definitive character in female ants, but their presence among the males has never been objectively surveyed. A spot check in the Museum of Comparative Zoology collection shows that metapleural glands are lacking, or externally indiscernible, in the males of many genera. Placement in the subfamily Ponerinae is not tenable, since all known ponerine ants, of all