

east coast of Australia. The little biological information available suggests they are nocturnal and arboreal. These habits at least partially explain their infrequent collection. It seems unlikely the species described here will be the last in the genus. With three taxa known from only four collecting events it is clear that we are a long way from understanding these curious ants. We know nothing of their nesting habits and little about other aspects of their biology. It is unclear whether their infrequent encounter is caused by true rarity or by cryptic habits, or (more likely) a combination of these factors. Only further field work will answer these questions.

Acknowledgements

Brian Heterick must be thanked for locating the important specimen of *P. greavesi* in the Museum of Comparative Zoology, and Stefan Cover for making it available for study. I would also like to thank Chris Burwell for his notes on *P. overbecki*. The illustrations of *P. bartoni* were prepared by Anne Hastings and those of *P. overbecki* by Natalie Barnett. Comments on the manuscript provided by Barry Bolton and Phil Ward were most welcome.

References

- Bolton, B. (1994) *Identification Guide to the Ant Genera of the World*. Cambridge, Mass., 222 pp.
- Bolton, B. (2003) Synopsis and classification of Formicidae. *Memoirs of the American Entomological Institute*, 71, 1–370.
- Brown, W.L. Jr. (1948) A preliminary generic revision of the higher Dacetini (Hymenoptera: Formicidae). *Transactions of the American Entomological Society*, 74, 101–129.
- Brown, W.L. Jr. (1949) Revision of the ant tribe Dacetini. IV. Some genera properly excluded from the Dacetini, with the establishment of the Basicerotini new tribe. *Transactions of the American Entomological Society*, 75, 83–96.
- Shattuck, S.O. (1999) *Australian Ants, their Biology and Identification*. Monographs on Invertebrate Taxonomy, vol. 3. CSIRO Publishing, Collingwood, 226 pp.
- Shattuck, S.O. & Hinkley, S. (2002) A second species in the ant genus *Peronomyrmex* (Hymenoptera: Formicidae). *Australian Journal of Entomology*, 41, 104–105.
- Taylor, R.W. (1970) Characterization of the Australian endemic ant genus *Peronomyrmex* Viehmeyer (Hymenoptera: Formicidae). *Journal of the Australian Entomological Society*, 9, 209–211.
- Viehmeyer, H. (1922) Neue Ameisen. *Archiv für Naturgeschichte (a)*, 88, 203–220.