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NOTES ON AUSTRALIAN ANTS OF THE GENUS *POLYRHACHIS* FR. SMITH, WITH
A SYNONYMIC LIST OF THE SPECIES (HYMENOPTERA: FORMICIDAE:
FORMICINAE)

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The named Australian species of the ant genus *Polyrhachis* are reviewed. Eleven subspecies are raised to species: *P. guerini lata* Emery, *P. hookeri lownei* Forel, *P. hookeri obscura* Forel, *P. aurea obtusa* Emery, *P. guerini pallescens* Mayr, *P. rastellata pilosa* Donisthorpe, *P. sexspinosa reclinata* Emery, *P. appendiculata schoopae* Forel, *P. guerini vermiculosa* Mayr, *P. lombokensis yarrabahensis* Forel and *P. rastellata yorkana* Forel. *P. australis* Mayr, formerly a junior synonym of *P. levior* Roger, is declared a valid species. Nine new synonyms are proposed (senior names cited first): *P. australis* Mayr = *P. nox* Donisthorpe, *P. creusa* Emery = *P. creusa chlorizans* Forel = *P. hecuba* Forel, *P. heinlethii* Forel = *P. heinlethii sophiae* Forel, *P. hookeri* Lowne = *P. hookeri aerea* Forel, *P. lata* Emery = *P. gab aegra* Forel, *P. pallescens* Mayr = *P. aurea depilis* Emery, *P. phryne* Forel = *P. sidnica perthensis* Crawley, *P. sexspinosa* (Latreille) = *P. barnardi* Clark. Seven Papuan species are recorded for the first time from Australia: *P. argenteosignata* Emery, *P. atropos* Fr. Smith, *P. denticulata* Karawajew, *P. mucronata* Fr. Smith, *P. obtusa* Emery, *P. reclinata* Emery and *P. semiobscura* Donisthorpe. *P. guerini* Roger, *P. levior* Roger and *P. lombokensis* Emery, which were previously reported from Australia, apparently do not occur there. *P. guerini* is known only from New Caledonia and is apparently endemic there. A current synonymic list of the 114 valid named Australian *Polyrhachis* species is provided, and the position of all names in the traditional subgeneric arrangement is indicated. □ *Formicidae*, *Polyrhachis*, *Australia*, *synonymy*, *distribution*, *checklist*.

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This study culminates a series to which both authors have contributed (Kohout, 1988a, 1988b, 1988c, 1989, 1990; Taylor, 1989). With these studies, we have aimed to review the identities and nomenclature of all described Australian species of the large and diverse formicine ant genus *Polyrhachis* Fr. Smith. In this paper, a number of species-group taxa are discussed in detail. They are the last remaining for consideration in this project.

During the 210 years preceding 1985, 20 authors generated a nomenclature comprising 137 available specific and subspecific names for Australian *Polyrhachis*. As well, several infrasubspecific names, which have no formal status in zoological nomenclature (Taylor, 1986), were proposed. The arrangement of species that resulted was summarised by Taylor and Brown (1985) and Taylor (1987). Because no comprehensive revision of the genus was available, these lists ranked the available names according to the their then most recent

taxonomic assignment. In Taylor's checklist (1987), for example, 86 names were ranked as species, and 33 as subspecies. At that time, only 5 names had previously been assigned to junior synonymy and 3 to junior homonymy. However, because this arrangement was assembled piecemeal and neither subjected to critical review nor revision, any impression of systematic comprehensiveness in the resulting nomenclature is illusory.

Following our studies, we are now able to recognise 114 validly named species of *Polyrhachis* from Australia, and 33 junior synonyms or homonyms. We find no justification for continued nomenclatural recognition of subspecies. In our recent papers, 20 of the subspecies listed by Taylor (1987) have been elevated to specific rank, and 13 consigned to junior synonymy. Of the latter, 5 are treated as junior synonyms of their species, 2 as junior synonyms of an elevated name that was previously treated as a subspecies of the same species, and 6 as junior synonyms of