

Identity of *Monomorium occidaneum* Crawley, a species inquirenda, and status of *Monomorium micron* Crawley (Hymenoptera: Formicidae)

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Abstract Because the original type material has been made available, *Monomorium occidaneum* Crawley, a species inquirenda in Heterick's revision of the Australian *Monomorium*, can now be regarded as a junior synonym of *Monomorium leae* Forel. In addition, the status of a primary type specimen of *Monomorium micron* Crawley cited in the same publication is altered from 'holotype' to 'syntype'. This specimen has now been designated a lectotype to ensure stability of the name.

Key words ants, *Monomorium leae* Forel, *Monomorium micron* Crawley, *Monomorium sordidum* Forel.

INTRODUCTION

In my revision of the Australian members of the myrmicine ant genus *Monomorium* (Heterick 2001), I was obliged to leave the taxon *Monomorium occidaneum* Crawley (listed as *Monomorium occidaneum* by Bolton in his 1995 Catalogue) as a species inquirenda, as type material was not available, and the original description was lacking in sufficient clarity to enable a diagnosis to be made of its true identity. The original type material (a syntype worker and queen) has now been made available to me by Mr Chris O'Toole of the Oxford University Museum of Natural History (OUM). The singular nature of the measurements given by Crawley (1922) indicates that the description of the syntype queen and worker was wholly based on the two specimens mounted on one pin. I also comment on the status of a primary type specimen of *Monomorium micron* Crawley, which I described as a 'holotype', examined during the above revision.

TAXONOMIC ACTION UNDERTAKEN

Monomorium occidaneum Crawley (1922)

Lectotype. *Western Australia.* Worker, Swan River, J. Clark. **Lectotype worker measurements.** HML 1.54; HL 0.60; HW 0.51; CeI 85; SL 0.40; SI 78; PW 0.34 (see Heterick (2003) for details of the abbreviations and their definitions). The worker is illustrated (fig. 10) in Crawley's manuscript, and accordingly I have designated this worker as lectotype. This lectotype has been chosen to fix the name for the taxon '*Monomorium occidaneum*', which represents one form of a species (*Monomorium leae* Forel) that is extremely variable in morphology and colour over its wide range.

Paralectotype. *Western Australia.* Queen, collection details as for the lectotype.

Diagnosis. The worker specimen easily matches the diagnosis of *Monomorium leae* in the key to workers of Australian *Monomorium* provided in Heterick (2001), and a full description of all castes of that species is provided in the same monograph. The worker of *M. leae* can be distinguished from related species of *Monomorium* by a combination of a number of features, most prominently its 12-segmented antenna, a palp formula (PF) of 2,3, a sculptured and angulate propodeum, elliptical eyes, high node, mandibular dentition (five teeth and denticles) and lack of a strongly indented anteromedian clypeal margin and clypeal denticles.

Remarks. Both worker and queen of *M. occidaneum* are identical to those of *M. leae sensu stricto*, specifically the morphological variant designated by Heterick (2001) as '*insularis-flavipes*'. The only (slight) difference between the worker of *M. occidaneum* and other workers of '*insularis flavipes*' examined in that revision concerns the position of the compound eye, which in *M. occidaneum* is somewhat behind the midline when the head capsule is viewed in profile (compared with an eye set at around the midline). Populations of *M. leae* variant '*insularis-flavipes*' are quite common in the vicinity of Perth, Western Australia, where Clark would have collected the two specimens. I therefore regard the name *occidaneum* as a junior synonym of *M. leae*, and the nomenclature under *M. leae* in Heterick (2001) should be modified as follows:

Monomorium leae Forel
Monomorium leae Forel (1913): 185–187
**Monomorium occidaneum* Crawley (1922): 447, 448, fig. 19.

Syn. nov.

Monomorium flavipes Clark (1938): 369–370, fig. 8. Syn. nov.

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- Monomorium insularis* Clark (1938): 368–369, fig. 7. Syn. nov.
- Chelaner leae* (Forel) [comb. nov. Ettershank (1966): 97].
- **Chelaner occidaneus* (Crawley) [comb. nov. Ettershank (1966): 97].
- Chelaner flavipes* (Clark) [comb. nov. Ettershank (1966): 97].
- Chelaner insularis* (Clark) [comb. nov. Ettershank (1966): 97]
- Monomorium leae* Forel [comb. Bolton (1987): 300, 301]
- **Monomorium occidaneum* Crawley [comb. Bolton (1987): 300, 301]
- Monomorium flavipes* Clark [comb. Bolton (1987): 300, 301]
- Monomorium insularis* Clark [comb. Bolton (1987): 300, 301]

Monomorium micron Crawley (1925)

In Heterick (2001) I listed *M. micron* as a junior synonym under *Monomorium sordidum* Forel. What appears to have been a single queen and a single worker were described by Crawley (1925), and both should be considered as syntypes for the taxon *M. micron*, but in my monograph I incorrectly designated the worker as a 'holotype'. I have not seen the queen, but the worker is here made a lectotype to fix the name for this taxon, which exhibits some variation and has attracted several synonyms. Lectotype measurements are as follows: HML 1.35, HL 0.52, HW 0.46, CeI 88, SL 0.36, SI 78 PW 0.27. In the same place in my revision three other workers were listed as 'paratypes'. However, although these bear a blue 'cotype' label attached by Crawley, they are neither mentioned nor inferred in the original description of *M. micron* and therefore have no type status.

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