

plus, *Dacryon*, *Colobostruma*, *Iridomyrmex*, *Notostigma*, *Camponotus* and *Polyrhachis*. The fauna is probably smaller than that of the Thomas River depression and appears to share almost no species with the latter. It is further marked by having a much more distinct division between the diurnal and nocturnal elements. Several of the nocturnal sandplain species in *Colobostruma*, *Dacryon*, *Iridomyrmex* and *Camponotus* are notable for their very light coloration and large eyes, characteristics that are shared with *Nothomyrmecia macrops*. For this reason we consider it a strong possibility that *N. macrops* is nocturnal and a sandplain dweller.

In February 13-14, 1955, Athol Douglas and Edward Wilson collected in the arid eucalyptus forest from Norseman to Balladonia along the Transcontinental Highway. Other trips in the Norseman-Esperance-Balladonia area have been conducted independently by Athol Douglas, Tom Greaves and John Calaby. All of these efforts, like the ones before them, have been unsuccessful in finding *Nothomyrmecia*.

Few insect species have been the objects of such concentrated but consistently unsuccessful search as has the elusive *Nothomyrmecia macrops*. Because of its important phylogenetic position and our complete lack of information concerning its ecology and behaviour, its rediscovery and study in the living condition provide, in our opinion, one of the principal challenges of modern Australian entomology.

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