

MYRMECIA PILIVENTRIS Fred. Smith

Myrmecia piliventris Fred. Smith, 1858, Cat. Hym. Brit. Mus. 6: 146, worker.

Crawley, 1926, p. 385, fig. 11, worker.

Promyrmecia piliventris Clark, 1952, Formic. Australia, Melbourne, 1: 156-158, all castes; see for further synonymy, figures.

Myrmecia piliventris var. *rectidens* Forel, 1910, Rev. Suisse Zool. 18: 5, worker.

NEW SYNONYMY.

Promyrmecia rectidens Clark, 1952, Formic. Australia, Melbourne, 1: 159-161, figs. 126-128, worker, subapterous and ergatoid females; see for further synonymy.

M. piliventris shows great differences in size between different nest series, so that two nests located within 25 meters of one another may appear like two totally different species. Large series, however, if representing numerous nests, show all intermediate size stages. Sometimes one notices slight differences, apparently following allometric patterns, between size extremes, and it appears that Forel named the var. *rectidens* on the basis of smaller specimens. In attempting to strengthen the distinction between the two "species," Clark has on different occasions utilized different characters, such as presence or absence of postpetiolar pilosity and supposed constant mandibular differences. From the series present in the Museum of Comparative Zoology, I am satisfied that such distinctions will not hold with sufficient constancy, particularly when the probable inter-nidal allometry is fully considered. Clark found the smaller variety to produce subapterous or ergatoid females, a phenomenon possibly correlated with the stature of the workers and one that might indicate a strong effect of environmental influences on body size and form in this species. A similar effect is also seen in the related *M. fulvipes* and to a lesser degree in other *Myrmecia* species.

This species is much more common in South Australia than published records indicate, and is especially abundant in the Flinders Chase area of western Kangaroo Island, where it nests under stones and logs or grass-tree stumps in the luxuriant sugar gum ravines as well as in the much drier *Casuarina* and malleescrubs and occasionally on the heathland. Individuals from colonies taken on the heath are noticeably smaller than are those from the Ravine des Casoars. A colony taken along Weetangeera Road in the Black Mountain Forest near Canberra (*Eucalyptus macrorrhyncha*-*E. melliodora* woodland) contained the largest workers seen (T. Greaves and W. L. Brown).