

Trapdoor Spiders of the Genus *Misgolas* (Mygalomorphae: Idiopidae) from Eastern New South Wales, With Notes on Genetic Variation

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ABSTRACT. This paper reports on species of the idiopid trapdoor spider genus *Misgolas* Karsch, 1878 found in the Central Coast, Newcastle and Lower Mid-North Coast Regions of New South Wales, Australia. They comprise twenty-two new species: *M. mudfordae* n.sp., *M. thompsonae* n.sp., *M. tarnawskiae* n.sp., *M. dougweiri* n.sp., *M. maxhicksi* n.sp., *M. campbelli* n.sp., *M. yorkmainae* n.sp., *M. helensmithae* n.sp., *M. weigelorum* n.sp., *M. taiti* n.sp., *M. sydjordanae* n.sp., *M. davidwilsoni* n.sp., *M. crawfordorum* n.sp., *M. watsonorum* n.sp., *M. raveni* n.sp., *M. fredcoylei* n.sp., *M. billsheari* n.sp., *M. baehrae* n.sp., *M. macei* n.sp., *M. grayi* n.sp., *M. browningi* n.sp. and *M. linklateri* n.sp. Three species dealt with in Wishart (2006) are also included in the region covered by this work: *M. melancholicus*, *M. villosus* and *M. gracilis*. A key for males of the species within the regions is presented, as well as distribution maps and comments on taxonomy and natural history. Also included is one new species from Bondi, an eastern suburb of Sydney—*M. milledgei*.

The status of the *Misgolas* species dealt with by Wishart (2006) is clarified. An outline of the intervention of molecular work necessitated by need to match otherwise undiagnosable species with conspecific males is discussed. *Misgolas hubbardi* is placed in the synonymy of *M. rapax* as it shows no significant morphological differences in the females of the two species, nor significant molecular divergence. *Dyarcyops ionthus*, *Arbanitis montanus* and *A. chisholmi* are removed from the synonymy of *M. rapax*; and *A. fuscipes* is removed from the synonymy of *M. villosus*. *A. montanus* is given full species status. *Dyarcyops ionthus*, *A. chisholmi* and *A. fuscipes* are species incertae sedis.

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Since 1992 one of us (GW) have been accessing the Australian Museum's collection of mygalomorph spiders of the trapdoor spider genus *Misgolas* presently in excess of 2,200 specimens, for the most part collected from New South Wales. Of these the female and juvenile specimens

were generally not considered for species status because of the paucity of useful identifying characters. Of the males (about 1,300) photographic records of palp and bulb were kept to demonstrate interspecific variations in morphology of those organs. A similar exercise examining

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