

A NEW LOCALITY RECORD FOR *HEMIPHLEBIA MIRABILIS* SELYS (ZYGOPTERA: HEMIPHLEBIIIDAE)

*H. mirabilis* is the only species in its family, characterised by an open discoidal cell in the forewing and postnodals which are not aligned with the veins behind them (F.C. FRASER, 1955, *Ent. mon. Mag.* 91: 110-113). It is a small metallic green insect in which the males have white, expanded, inferior anal appendages which are used to display to the female by flexing of the abdomen (R.J. TILLYARD, 1957, *A reclassification of the order Odonata*, R. Zool. Soc. NSW, Sydney). Its habitat is reed beds on a swamp margin and it is generally only the white flag-waving behaviour which renders the cryptically coloured species visible.

Known originally only from a restricted site at Alexandra, Victoria, Australia (F.L. BILLINGHURST, 1900, *Victorian Nat.* 17: 5-9), it was, until recently, considered to be a Victorian endemic although thought to be extinct at Alexandra since the mid 1970's. D.A.L. DAVIES (1985, *Odonatologica* 14: 331-339) discovered a new colony at Wilsons Promontory National Park, in southern Victoria. In 1992 another colony was found in the Mt William National Park in northeast Tasmania. J.W.H. TRUEMAN et al. (1992, *Odonatologica* 21: 367-374) included the Tasma-

nian sightings in a review of the earlier Victorian observations and recent re-discoveries at Alexandra and Yea. Wilsons Promontory and Mt William lie at opposite ends of the Bassian Rise, a submarine connection between Victoria and Tasmania. The geology of the two localities is similar, consisting of spectacular granite intrusions. Also on the Bassian Rise are the Furneaux Group of islands, the largest of which is Flinders Island. In late November 1992 my wife and I visited the island in the hope of filling the gap in the distribution. We searched all of the accessible wetlands but with no success; it needs local knowledge for a thorough survey. Upon leaving I described the species and its behaviour to the District Ranger, Colin Spry, and subsequently sent him a photograph of a male from Wilsons Promontory.

On 7 January 1993, while conducting a survey for galaxiid fish, Colin Spry and Stuart Chilcott of Inland Fisheries, discovered *H. mirabilis* at two swamps. Two days later they found a third site. Specimens have been confirmed and lodged at the Australian National Insect Collection, Canberra, and the Queen Victoria Museum, Launceston.

Bass Strait was formed in the Oligocene or Miocene (20-30 MYA) but, over the last million years, the two land masses have probably been

connected 7 or 8 times during glacial maxima. R.J. TILLYARD (1914, *Proc. Linn. Soc. NSW* 38: 765-778) noted that most of the species that were common to Victoria and Tasmania were those that bred in still water. He concluded that the Bassian isthmus was too narrow to support running streams and therefore the migration of species requiring that habitat was restricted. He could now add one more still water species to his catalogue. Irrespective of the validity of Tillyard's speculation, the discovery of extant populations of *H. mirabilis* in Victoria, Flinders Island and Tasmania raises interesting biogeographical questions about their dispersal and continuity in the recent geologic past.

Congratulations are due to COLIN SPRY and STUART CHILCOTT for their important discovery and submission of specimens.

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