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REDISCOVERY OF THE MIENA JEWEL BEETLE (*CASTIARINA INSCULPTA* CARTER, 1934), FORMERLY LISTED AS EXTINCT

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INTRODUCTION

Tasmania has a jewel beetle fauna comprising about fifty species, including several with restricted ranges or poorly known distributions (Cowie, 2001). Jewel beetles belong to the family Buprestidae and most Tasmanian species frequent flowers and foliage as adults and are active only on bright hot days in late spring and throughout summer. Most buprestid larvae are borers of living tree stems with many known to prefer the lower stems and roots of native *Eucalyptus* and *Acacia* species. Many of the species recorded from Tasmania are endemic to the state and a number are only known from a few specimens and a few localities. In many cases it is unknown whether the species are truly rare, with a naturally small distribution, or whether they are now threatened, due to some human activity which is impacting upon their life style in some way.

One such species is the Miena jewel beetle, *Castiarina insculpta* Carter, 1934. This genus used to be considered a subgenus of *Stigmodera* (Baker, 1979, 1986, 1988; Matthews, 1985). Before other specimens came to light this year, the species was only known from two specimens and was listed as "presumed extinct" on Tasmania's *Threatened Species Protection Act 1995* (Bryant and Jackson,1999). The original specimen, on which the species description was based, is housed in the Natural History Museum, London. It was collected in the Great Lake district, on the Central Plateau, by Critchley Parker (Carter, 1934). (As an aside, it is strongly suspected, but not confirmed, that this was the same Critchley Parker (1911-1941) who advocated the establishment of a Jewish homeland in Tasmania in the 1930's and died in the wilderness of South-West Tasmania while researching the feasibility of this suggestion.) A second specimen was found in the Miena area of Great Lake in 1965 and is in the collections of the South Australian Museum (Cowie, 2001). Those listing the species as possibly extinct on the Threatened Species list in 1995 were probably not aware of this second find and assumed the species had not been recollected after the initial find.

Castiarina insculpta is a bright metallic green with three pairs of ovoid bright yellow blotches down the longitudinally grooved elytra. The elytra terminate posteriorly with a pair of short curved spines, which give a characteristic bat-like

shape. The jewel beetles all have ridged, highly sclerotised bodies and serrated antennae. The adult of this species has a total body length of about 12 mm and is about 4.5 mm wide. So far, all the specimens found have been females and all have been discovered flying on bright, warm sunny days in late January or early February.

OBSERVATIONS

A specimen, thought to be this species, was collected by Bill Thompson of Miena on February 14th 2004. He found it in the back of his ute after a short drive in the Miena area. He is sure that is wasn't there before the drive, and noticed it immediately on arrival. He recognised it as something he hadn't seen before and contacted both the Threatened Species section of Parks and Wildlife in Hobart and the Queen Victoria Museum and Art Gallery in Launceston. After describing the find, personnel from both bodies went to Miena to see the specimen and to try to find further specimens. This latter attempt failed.

The specimen was sent to the South Australian Museum, Adelaide, for comparison with the only known reference specimen in Australia and for the opinion of a leading jewel beetle specialist, Dr Shelley Barker. On confirmation, the specimen (Figure 1)was registered into the collections of the Queen Victoria Museum and Art Gallery - Registration Number : QVM:12:39824.

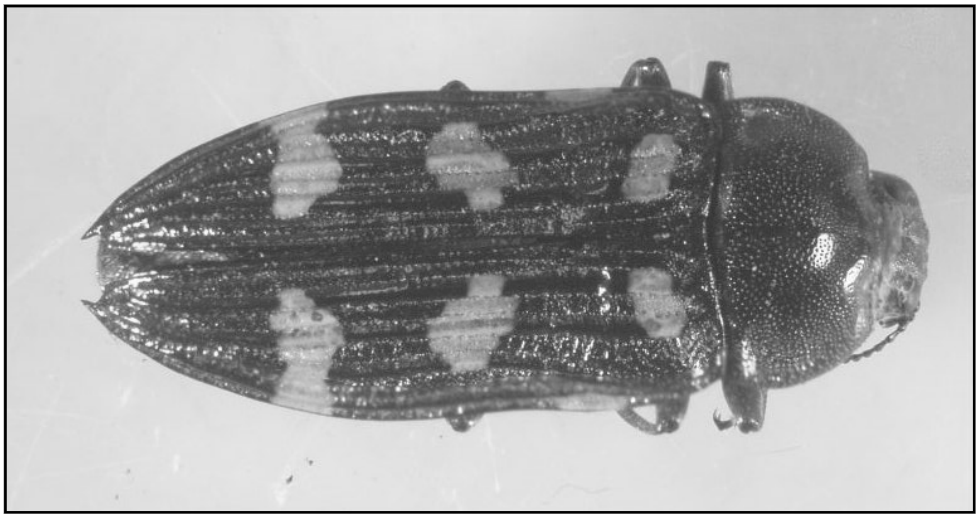

Figure 1. Dorsal view of the Miena jewel beetle *Castiarina insculpta* specimen found by Bill Thompson on February 14th 2004 near Miena on the Central Plateau (QVM:12:39824). Body length 12 mm.

Following some publicity of the find in the local press, the Museum was contacted by a local person who claimed to have a further specimen of this species. A number of such claims had been made at that time and, on investigation, all had proved to be to be erroneous. This specimen was brought in by John Stagg, who had been fishing at either Little Pine Lagoon or Lake Fergus, near Miena in mid-February. He had collected a number of flying insects at that time and put them into his fly-box. One of these turned out to be a further specimen of *Castiarina insculpta.* He donated it to the Queen Victoria Museum and it was registered into the collections – Registration Number: QVM:12: 43984. This was then also sent to Dr Barker in the South Australian Museum for his opinion. He referred it to this species but said that it was an unusually small specimen that might be considered different if more material were available.

DISCUSSION

This find of two specimens of the Miena jewel beetle *Castiarina insculpta* at least shows that the species is still alive in that area of the Central Plateau, along the southern shore of Great Lake. It shows that listing it as "presumed extinct" was premature, and it serves to illustrate the possibly equivocal status of many of the species now listed as rare or presumed extinct. This species is known from four individuals, all collected in late summer from approximately the same narrow area of country on the Central Plateau. The collections were spread over more than 75 years so there must be a viable population somewhere in that region. All were actively flying, but there are no records of any association with any particular plant species or micro-habitat. All the specimens are female, so no information is available about the status of the males or whether there is anything unusual about the reproductive biology of the species. We still don't even know much about the distribution of the species, as much of the country in that immediate area is not visited at all.

This list of negatives and question marks can equally apply to many of the invertebrate species described as Tasmanian endemics. Even within the approximately 50 described species of jewel beetles in the Tasmanian fauna, about 15 are listed as rare or of uncertain status and are known from less than a handful of records. There is still a long way to go in documenting the basic biodiversity of the state, and the importance of field naturalists and informed members of the general public in this work cannot be overstated.

ACKNOWLEDGEMENTS

Thanks are due to Bill Thompson and John Stagg for the donation of the specimens and for their continued interest in the natural world and their keen observation of it. We are also grateful to Dr Shelley Barker of the South Austra-

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