

NEW ZEALAND WETAS OF THE GENUS
HEMIDEINA

G.W.Ramsey & R.S.Bigelow

New Zealand Hemidiena wetas have been revised several times- Buller(1895), Hutton(1897), Karny(1937), Salmon(1950,1951). The names in current use are based on Salmon's work, in which nine species and sub-species were recognised. The results of our study indicate that five species only should be recognised and that one of the species recognised by Salmon from North Westland-Karamea region - H.boughi- should be placed in another genus. Several name changes are necessary for the most widely referred-to and common species, so, since no new names are involved, our conclusions are outlined here to enable the correct names to be used.

It is suprising and rather unfortunate that the publications of Karny(1930,1934,1937) have usually been overlooked as, had this not been so, several of the name changes, especially those of the most common species, would not have been necessary. Our work confirms and develops Karny's conclusions. Examination of the British Museum type specimens supports Karny's opinion that the valid name for the Auckland weta (currently known as Hemideina thoracica figurata) is Hemideina thoracica, the name at present given to the Wellington Weta.

Salmon (1950, 1955) considered the Auckland Weta to be a sub-species only of the Wellington weta, whereas Brunner von Wattenwyl (1888), Hutton, (1897), and Karny(1930,1934,1937) regarded it as a distinct species, clearly distinguished from the Wellington weta by its pale thoracic colouration and absence of black traverse abdominal stripes. Brunner von Wattenwyl, Hutton, and Karny all used the specific name thoracica for the Auckland weta. The Wellington weta has had a number of different specific names of which figurata is one, and, prior to Salmon's work, it was mostly known as H.megacephala. Salmon applied the name thoracica to this species. Karny used megacephala in his 1930 contribution, but in 1934 he showed that the name should be crassidens. This name he again used in 1937. It is based on a single specimen collected at Concepcion, Chile, before 1852. We are unaware of any further specimens having occurred in South America. The species had been placed in various genera and was usually ignored until studied by Karny, who recognised it as a species of Hemideina. We are endeavouring to obtain more information but consider that Karny's conclusions will be correct as he was familiar with Hemideina as well as with the related South American genera Leiomelus and Cratomelus. It is interesting to speculate that the type specimen of H.crassidens was possibly carried from New Zealand to Chile in a sailing ship following the usual trade route of that time - from Europe to New Zealand via Africa and the Cape of Good Hope and back via South America and Cape Horn.

The third species, Hemideina femorata, the Canterbury weta, was regarded as a synonym of the Wellington weta (with which it is superficially quite similar) by Karny(1937), and of the Auckland weta by Salmon(1950). It is easily distinguished from the Wellington weta by its mottled pigmentation, by its dark transverse abdominal stripes anterior on each segment and not posterior as in the Wellington weta, and by the presence of a blade or carina on the mandible, especially in the male. It is an interesting fact that

prior to our study, very few specimens of this widespread, common species had been collected. It occurs at Kaikoura, Banks peninsula and fairlie but is found mainly in the Canterbury foothills.

The fourth species, Hemideina ricta, the Banks Peninsula weta, was recognised by Hutton and Salmon (by a new name) as a distinct species. Only a very few specimens had ever been collected however, and none at all since 1904, until recently when it was rediscovered by a party from the Zoology Dept., University of Canterbury, at a locality near Akaroa. It is similar to the Canterbury weta but distinguishable by its much more uniform colouration, and general absence of very dark pigmentation or colour pattern, although somewhat darker coloured transverse stripes sometimes occur anteriorly on the abdominal tergites. A study of the ecological relationship between this species and the Canterbury weta on Banks Peninsula would no doubt prove very interesting.

The fifth and last species, Hemideina maori, the Mountain weta, is very distinct, and has always been regarded as such. It is ground-dwelling, in contrast to the preceding four species which are arboreal, and has shorter antennae. It was originally collected from the Hooker Flats near the Mt. Cook Hermitage and is widespread on the river flats of the eastern side of the southern alps and also above the bushline in the same region. It is variable, with a particularly large massive form occurring on the Rock and Pillar Range in Otago. It is distinguished by its strongly mottled pigmentation, transverse abdominal stripes anterior to each segment, mandibular carina, relatively short antenna, and a number of files in its stridulatory organ.

To summarise then, the five species of Hemideina in New Zealand which we recognise are:

Hemideina thoracica (White, 1845), the Auckland weta.
Hemideina carssidens (Blanchard, 1851) the Wellington weta.
Hemideina femorata (Hutton, 1897), the Canterbury weta.
Hemideina ricta Hutton, 1897, the Banks peninsula weta.
Hemideina maori (Pictet of Saussure, 1891) The mountain weta.

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