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The Identity of Spiders belonging to the Genus *Amaurobioides* Cambridge

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SUMMARY

The validity of the three species, *Amaurobioides litoralis* Hickman, *Amaurobioides africanus* Hewitt and *Amaurobicides piscator* Hogg is discussed. All three are regarded as synonymous with *Amaurobioides maritima* Cambridge.

Four species of spiders belonging to the littoral genus *Amaurobioides* Cambridge have been described, namely—

Amaurobioides maritima Cambridge, 1883, from Allday Bay, Otago, New Zealand.

Amaurobioides piscator Hogg, 1909, from Campbell Island, south of New Zealand.

Amaurobioides africanus Hewitt, 1917, from East London, South Africa.

Amaurobioides litoralis Hickman, 1949, from Eaglehawk Neck, Tasmania.

In my description of *A. litoralis* I stated that there was a close resemblance between it and *A. maritima* Cambridge. However, according to Cambridge the cephalothorax of *A. maritima* was twice as long as it was broad. Moreover, his figure of the maxillae and labium showed the labium without lateral excavations at the base (See Cambridge, 1883, Plate XXXVI, fig 3e). In *A. litoralis* the cephalothorax measured only one and a half times as long as it was broad and the labium had lateral excavations at the base. On the assumption that Cambridge's description of the cephalothorax and figure of the labium of *A. maritima* were correct, the Tasmanian spider, *A. litoralis*, was considered to be a different species and described as such.

Through the courtesy of Professor B. J. Marples I have now received adult male and female specimens of *A. maritima* from Dunedin. These were collected from a locality near that from which the type specimen came. An examination of these spiders shows that Cambridge's statement of the size of the cephalothorax and his figure of the labium are incorrect. The cephalothorax of an adult female measures 6·09 mm. long and 3·89 mm. wide, and the labium is excavated on each side near the base.

A comparison of the Dunedin specimens with examples of *A. litoralis* from Tasmania shows no significant difference between them in either sex. The two spiders undoubtedly belong to the same species.

In regard to *A. africanus* Hewitt there also appears to be some doubt as to the validity of the species. Hewitt (1917, p. 705) states that he submitted immature examples from East London to Mr. H. R. Hogg, who compared them with the types of *A. piscator* from Campbell Island and 'was unable to find any essential difference' between the spiders from the two localities. Hewitt, however, regarded the epigynal character of the adult female of *A. piscator*, as figured by Hogg,

quite distinct from that of *A. africanus*. Hogg, on the other hand, considered the difference between the two epigyna as remarkably small (See Hewitt, 1917, p. 710).

On comparing the characters described by Hewitt for *A. africanus* with those of *A. litoralis* from Tasmania and *A. maritima* from Dunedin, a close resemblance between the three spiders is at once apparent. Colouration, abdominal pattern, relative lengths of the appendages and the arrangement of spines on the legs are much the same. Projecting from the apex of the tibial segment of the palp in an adult male from Dunedin is a long straight stiff process gradually tapering to a fine point, just as there is in *A. africanus* and *A. litoralis*. The short finger-like process, which Hewit describes as being on the opposite side of the tibia in *A. africanus*, is also present in the New Zealand spider. In my description of *A. litoralis* the process was overlooked but a re-examination of a male from Eaglehawk Neck shows it to be present. In my opinion the South African, Tasmanian and New Zealand spiders all belong to the one species, *A. maritima* Cambridge.

In regard to *A. piscator* Hogg there seems to be very little difference between it and *A. maritima* Cambridge. Hogg (1909, p. 165) states that in general form, size, pattern on back of abdomen, and arrangement of the eyes, *A. piscator* very closely resembles *A. maritima*. However, he distinguishes the former from the latter species by its having a shorter cephalothorax, spines on the femora and the first, second and fourth pairs of legs equal in length.

As shown above, measurements of specimens of *A. maritima* from Dunedin indicate that Cambridge is incorrect in stating that the cephalothorax is twice as long as it is broad. According to Hogg's measurements there is not a very great difference in the size of the cephalothorax in *A. piscator* and that of the cephalothorax in the Dunedin specimens of *A. maritima*.

The relative proportions of the legs in *A. litoralis*, *A. africanus* and *A. piscator* are practically the same. The first, second and fourth pairs of legs in each case are sub-equal in length and the third pair the shortest. Cambridge does not record the exact measurements of the legs of the type specimen of *A. maritima* but merely gives the leg formula as 1. 4. 2. 3, stating that the difference between 1 and 4 is very slight. In the specimens from Dunedin the relative proportions of the legs agree with those of the other three forms.

From the above considerations it would seem that *A. africanus* Hewitt, *A. litoralis* Hickman and *A. piscator* Hogg are all synonyms of *A. maritima* Cambridge and that the one species occurs in South Africa, Tasmania, Campbell Island and New Zealand. This wide distribution is correlated with the fact that the spider is adapted to semi-marine conditions. Its nests are often made in cracks and crevices on the seaward faces of rocks and cliffs, which are subjected to wave-action and sea-spray. Young specimens frequently make their retreats amongst drifted seaweed, which accumulates between high and low tide levels. As the spider feeds largely on marine organisms, such as small crustacea, it could no doubt survive a long sea voyage drifting from South Africa to New Zealand on floating sea-weed.

References

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