

Subsequent to my description of this species I have seen three apparently conspecific amblyoponine males, also taken at Yalom by the *Noona Dan* collectors (probably in a Malaise trap) and dated one day earlier, 18 May 1962. These are not males of *Amblyopone australis*, *A. gnoma* or *Myopopone castanea* (Fr. Smith), and they do not match an Australian male of *Mystrium camillae* Emery, a species which might also be present on New Britain. They are considerably larger than would be expected for males of *A. papuana* or *A. celata*. I have therefore identified them as *A. noonadan*. These males have complete wing venation, with the vein *Rsf* 2-3 persistent, as in *A. celata* (Fig. 21). Two specimens are deposited in CM; one in ANIC.

### Relationships

*A. noonadan* is evidently related to the *A. luzonica* group of Japan, the Philippines and South-East Asia (Taylor 1965). Its affinities thus apparently do not lie with members of the extensive Australian *Amblyopone* fauna.

The frontal lobes of this species are more or less intermediate in their degree of proximity when compared with such species as the Japanese *A. silvestrii* (Wheeler), and *A. papuana* or *A. celata*.

The mandibular dentition of *A. silvestrii* resembles that of *A. noonadan* (see above), except that, in most specimens, neither basal tooth has an accompanying dorsal element. However, a relatively large worker from Mt Yonaha, Okinawa (23 April 1973, K. Uesu leg.) has a small tooth accompanying the first basal tooth and slightly displaced apically from it. This element is not present in smaller specimens from Honshu, Kyushu or Okinawa (ANIC).

The structure of the Mt Yonaha specimen could be considered morphologically intermediate between that of the other *silvestrii* specimens and that of the European *A. impressifrons* (Emery). Two workers identified as the latter in the ANIC (Gasturi, Corfu, 20 April 1929, Beier leg.) have five sets of paired teeth and a single, large, more or less triangular, basal tooth. It thus seems likely that in the lineage of *A. silvestrii*, the fifth (basalmost) set of originally paired teeth has become reduced to a single tooth; that tooth being homologous with the ventral element of an original pair, the dorsal element of which is still represented, though vestigial and displaced, in the Mt Yonaha specimen. The likely course of this reduction could be represented by the morphocline ~~*denticulata*~~ → *silvestrii* (Mt Yonaha specimen) → *silvestrii* (other specimens).

In a further related set of features the two North American species *A. pallipes* (Haldeman) and *A. oregonensis* (Wheeler) are of special interest. Like ~~*denticulata*~~ they have five sets of paired median teeth and a single basal tooth. However, the fifth (basalmost) set of paired teeth has associated with it a very small supplementary tooth, forming a triplet. This tooth probably represents the apically displaced dorsal twin of the now single basal tooth. It is very likely homologous with the somewhat vestigial dorsal tooth associated with the second basal tooth of *A. gnoma* (see above) or *A. papuana* (see below).

These data imply that, in this lineage of *Amblyopone*, an original series of six paired teeth has been progressively reduced, by loss of the dorsal elements of the fifth and sixth sets, to the condition seen in most *silvestrii* workers: namely four sets of paired teeth and two single basal ones. The discussion and figures of Baroni