

individual, obviously a pathological worker of *O. ruficeps* with a swollen, misshapen gaster, in part yellowish in color and apparently the result of an internal parasite.

Outside of Australia, other problems exist concerning the relationship of *O. cephalotes* with the two nominal species, *O. aciculatus* and *O. aeneus*. All three forms in New Guinea have striate gastric sculpture, with the last two, both from the western part of the great island (West Irian), being striate in a transverse direction. The New Guinea *cephalotes* populations have exceedingly variable gastric striation. Examples are available with the entire first segment longitudinally striate, while in most samples, some anterior part of the first segment is transversely striate, with various degrees of arching over a posterior zone or posteromedian pocket of longitudinal striation. In some samples, transverse striation occupies at least 70% of the length of the first segment.

Thus we are faced with a situation in which samples with only small parts of the first gastric segment longitudinally striate are nevertheless placed in *O. cephalotes* together with specimens in which the whole segment is longitudinally striate, while examples with all-transverse striation are put into *O. aciculatus* or *O. aeneus*. It seems to me at least doubtful that the difference between «completely transverse» and «0-70% transverse» really by itself marks a species difference.

*O. aeneus* has been separated from *O. aciculatus* on the basis of its metallic integumental reflections, stressed by Emery. I have now studied the *aeneus* type (ZMA-Amsterdam), and compared it with West Irian samples, including specimens almost certainly part of the type series of *O. aciculatus* in the British Museum, as well as variants that would otherwise be classed as *O. cephalotes* on sculptural details. Metallic surface reflections and iridescence of varying kinds and degrees are of course commonplace in *Odontomachus*, including the complex under discussion, and they are subject to considerable intrinsic variation, as well as modification by grease or dirt on the integumental surfaces of different samples. The *aeneus* holotype (Wendesi, W. Irian) does have weak bronzy and violaceous reflections on head and trunk, but these are also found in *aciculatus*. In the *aeneus* type, the striation of the upper vertex is feeble, and extends only partway down the sides. Emery apparently never saw *aciculatus* types, and Wilson, who left *aeneus* as a distinct species, seems never to have examined *aeneus* types.