

GENOTYPE: *Orectognathus chyzeri* Emery, by present designation.

This very well marked genus includes, besides the genotype, three other species originally described as *Orectognathus: biroi* (Szabó), *horvathi* (Szabó) and *longispinosus* (Donisthorpe). All are, so far as is known, confined to New Guinea and closely adjacent islands. It seems apparent that the genus is one derived from the more primitive *Orectognathus*. All four species are apparently quite rare, none having been reported from a second collection, and nothing has been recorded concerning their ethology. The males and females remain unknown.

I have not seen a single specimen referable to this genus, but fortunately three of the species are fairly well described and convincingly figured from dorsal and lateral views by Emery and Szabó, so that distinguishing characters are quite apparent. There remains, however, the possibility that the primitive polymorphic tendencies shown by certain *Orectognathus* species have been retained by one or more *Arnoldidris* species. Should this be demonstrated, certain of the names considered valid here might prove synonymous as representing different worker subcastes of the same polymorphic species. No such polymorphism is clear from the present literature.

The key presented below is taken entirely from the original descriptions and figures, and should therefore be followed with caution. The species *longispinosus* was never figured, and the rather incomplete and vague description requires supplementation.

Key to the Workers of Arnoldidris

1. Occipital lobes posteriorly or posteroventrally carinate, the carina ending in a sharp tooth2
 Occipital lobes posteriorly more or less angulate as seen from the side, but not with a sharp tooth3
2. Alitrunk, middle of head, petiole and postpetiole blackish; gaster, occipital lobes, anterior head and most of appendages brownish-yellow; "smooth and shining, covered with very small scattered punctures"
 longispinosus (Donisthorpe)
 Brownish-yellow, vertex brownish, appendages yellow; gastric dorsum "mate" *horvathi* (Szabó)
3. Epinotal spines and petiole each about as long as the greatest width of the gaster and about twice as long as the width of the propodeum; postpetiole almost twice as long as broad *biroi* (Szabó)