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East African odontopygid millipedes 3: Two new genera; *Lamelloramus* and *Aquattuor* proposed to contain three new species (Diplopoda; Spirostreptida; Odontopygidae)

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Abstract

Two new genera and three new species in the millipede family Odontopygidae are described; *Lamelloramus rhombiformis, L. triangularis* and *Aquattuor denticulatus.* All three species are found in the East Usambara Mountains.

Key words: Odontopygidae, taxonomy, new genus, new species, Usambara Mts.

Introduction

In the early 20th century, a lot of new odontopygid species were described and *Odontopyge* (a single genus at the time) was split up into different genera based on gonopod structure by specialists such as Attems (e.g., 1909). The climax of this phase was the monographic treatment of the family Odontopygidae by Kraus (1960, 1966) at which point a total of 40 genera and 357 species had been described.

Since Kraus' *magna opera* there has been but modest progress in documentation of the incredible diversity of Odontopygidae. Especially from East Africa, few new species and genera have been described (for details see Frederiksen and Enghoff 2012) despite lots of undescribed material sitting in various collections. A preliminary search shows 51 species of Odontopygidae to have been found in Tanzania and so far at least half are only recorded there, but whether they are truly endemic or they will turn up elsewhere with more than just a few records is unclear. Most likely the Eastern Arc Mts. hold a substantial number of both described and undescribed species yet to be recorded.

This paper describes three new species from the Usambara Mountains. The new genus *Lamelloramus* is created to contain two of the new species*; L. rhombiformis* and *L. triangularis,* and the new genus *Aquattuor* is proposed to contain the new species *A. denticulatus*.

The present paper is the third in a series of contributions to the knowledge of the family Odontopygidae in East Africa, especially Eastern Arc, Tanzania.

The family Odontopygidae is known for the bland, dull external appearance of its species, making them, except for one genus (*Callistodontopyge*), virtually impossible to distinguish from each other except by looking at their gonopods. For the same reason only males have been described since it is not possible to determine the species of the females based on appearance. The male gonopods, on the other hand, exhibit an incredible diversity of structure, and with no knowledge of which characteristics to emphasise, make it very hard to recognise genera. On one hand if a strategy of a broadly defined genus is adopted, the genus definition ends up loose and often encompassing a lot of species only vaguely resembling each other (e.g. *Odontopyge* sensu Kraus 1966, but see Hoffman 1991). With this approach, some species may possibly even match several genus definitions. A second strategy would be to adopt a splitter approach with a much narrower genus definition, so that only species that closely resemble one another, with most characteristics in common, are put in the same genus. This, however, could yield a lot of monotypic genera or genera encompassing only a very few species. Nevertheless until a more viable solution shows itself (e.g. by molecular studies) that is the approach I have chosen.

The description of the gonopod structure follows the terminology suggested in the first paper of the series

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