

## Towards a systematic revision of *Bridouxia*

### Master Thesis

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### Abstract

Lake Tanganyika is an ancient lake, which harbours several groups of endemic species. It can be seen as evolutionary laboratory due to the known adaptive radiations, like in cichlid fishes and is therefore interesting for evolutionary biology. Radiations have also been described for the gastropod fauna of Lake Tanganyika. The focus here is on *Bridouxia*, a group of endemic paludomids, a member of the “thalassoid” gastropods of Lake Tanganyika within there are still many taxonomical uncertainties. The type species is *B. giraudi*, first described by Bourguignat in 1885. He and other malacologist described many more species within *Bridouxia* and also in *Baizea*, *Coulboisia*, *Giraudia* and *Lechaptosia*, today regarded as belonging to *Bridouxia*. In this study, the systematic relations within *Bridouxia* were clarified examining material of the Zoologisches Museum Hamburg, Museum für Naturkunde Berlin, the Danisch Bilharziasis Laboratory, the British Museum of Natural History and the British Museum of Natural History using geometric morphometrics, analysis of radulae and few molecular data. The results of this study indicate that *B. giraudi*, *B. ponsonbyi*, *B. praeclara*, *B. rotundata* and *B. tanganyicensis* can be identified as valid species and two species preliminary have to be considered as incertae sedis, on the ground of phenotype, biometry, geometric morphometrics, analysis of radulae and few molecular data. Some results indicate that there are two entities, presently united within *B. tanganyicensis*. This assumption has to be tested in further studies. In this study the ratio between species considered valid to all named species is found as to be 1:2.6 or 1:2.3, calculated with five or six valid species (that is with *B. tanganyicensis* treated as one or two entities). Thus with 39 % or 43 % valid species, the taxonomy redundancy in this taxon (61% and 57 %, respectively) is again relatively high, compared to that found in other limnic gastropods. Nevertheless, with five valid species, *Bridouxia* is one of the species-rich genera of the Paludomidae.

