Petrochromis sp. "kipili brown" a chocolate-coloured beauty from Lake Tanganyika

Anja Haefeli[1], Frederic D.B. Schedel[2], Fabrizia Ronco[3] & Walter Salzburger[1]

[1]*Zoological Institute, University of Basel, Switzerland*

[2]*Faculty of Biology, Ludwig-Maximilians-University Munich, Germany*

[3]*Natural History Museum Oslo, University of Oslo, Norway*

Cichlid fishes received a lot of attention in evolutionary research over the last decades. Despite the improvements in reconstructing their evolutionary history, their taxonomy received considerably less attention.

In our study system, the cichlids of Lake Tanganyika, many species still await their formal description while several genera need taxonomic revisions and re-evaluation of their classification. In this taxonomic study we focused on the Tropheini, one of the most species rich tribes within the cichlid radiation of Lake Tanganyika. The Tropheini currently consist of 24 valid species which are assigned to nine different genera. One genus, *Petrochromis*, is polyphyletic consisting of three clades of which its species are specialized algae grazers dwelling on rocks at the shore of the lake. Three species occur at deeper water levels than the other *Petrochromis* species.

One of those three species, *P.* horii, is formally described whereas the other two remain undescribed: *P.* sp. “kipili brown” and *P.* sp. “red”. In order to be able to identify diagnostic characters for a proper species description for *P.* sp. “kipili brown”, we compiled a morphological dataset including 30 meristic characters as well as 23 morphometric measurements of all currently recognized taxa of the Tropheini. Principal component analyses enabled us to test for morphological discreteness of the different taxa on species level and to identify potential diagnostic character states and combinations to distinguish the different species. In addition, our dataset provides further information about the three clades of *Petrochromis* and their discreetness.