

Reviews in Fish Biology and Fisheries 7, 381-382 (1997)

Offshore Cichlids of Lake Malawi

George F. Turner

Cichlid Press, Lauenau, Germany, 1996

ISBN 3-928457-33-0

Hard cover, pp. 240, 4 tables, 146 figures (93 in colour, on 16 pages)

There are ecologists who sincerely believe that taxonomy is mere stamp collecting – I recently heard one say that. I was so amazed anybody would make such an assertion, after all the reasoned arguments of reputed biologists not defending their own turf – e.g. Robert May or S.J. Gould – that I was left speechless. George Turner's *Offshore Cichlids of Lake Malawi* would have helped here, as it presents, if indirectly, one of the best cases one could imagine for the continued relevance of taxonomy for most of what ecologists and other biologists do.

This sturdy, well-illustrated and indexed little book starts, as it should, with a brief description of Lake Malawi and its fish communities, and of previous work done thereon (Chapters 1–3), especially in the southern part of the lake, then moves on to a key (Chapter 4) for the identification of the cichlid groups inhabiting the 'offshore' areas of Lake Malawi – actually its south-western arm. Strangely enough, these 'offshore' areas are not clearly defined anywhere in the book, but one can infer they consist of "waters difficult to survey with SCUBA, either because of depth, or the turbidity of the water".

Chapters 5–18 then consist of descriptions of the (sub)species of the groups in question, which have names such as 'mbuna', 'utaka', '*Placidochromis hennydaviesae* complex', 'miscellaneous barred species', '*Otopharynx* and other oblique-striped species'. Many of the (sub)species in these groups are still formally undescribed, and Turner thus takes care to give them taxonomically invalid, temporary names, such as *Mylochromis* double spot (p. 181). Now what would this colleague who believes in taxonomy-as-stamp-collecting say to this? Why doesn't Turner put each of these species in its 'box', i.e. give it a name, so we can move on to more interesting aspects of its ecology and biology? The astute reader will know the answer, but it is worth restating here: it is because the ecology (e.g. behavioural ecology) and biology (e.g. reproductive biology) of these fishes is so little known that their taxonomy has not been sorted out, i.e. boxes are not 'out there' waiting to be filled.

Turner briefly addresses this problem in his Introduction, when he notes that the offshore cichlids of Lake Malawi, which "appear to be free (or at least freer than rocky shore fishes) to move around the lake", pose a greater challenge for those wishing to explain, using geographic isolation alone, how they evolved into so many species. Turner returns to this theme in his Discussion (Chapter 19), where he presents some alternative hypotheses put forward to explain this high rate of speciation. His subtitles thus include 'habitat preferences', 'trophic specialisation', 'reproduction and life cycles', 'sexual selection and species recognition', 'coexistence' and others, related to speciation processes in general and to cichlids in particular. His preference, not pushed very hard – understandably in view of the dearth of hard data – is for some form of sympatric speciation driven by sexual selection.

Subsequent sections deal with the aquarium trade, which I cannot assess, and with 'fisheries management', which I can, and which, in its shortness does great injustice to the number of issues that exploiting such a little-known species flock poses. Imagine, for example, that one were to try to apply to Lake Malawi the newly emerged concept of 'responsible' fishing: clearly, one cannot responsibly (nor 'sustainably', to throw in another concept relevant here) exploit fish species about which so little is known that

they cannot even be named. This point, indeed, leads to the last part of Turner's Discussion, to the issue of conservation. The long-term prospects are bleak; Turner writes that "although much well-meaning rhetoric is extended about the benefits of conservation to indigenous people, in truth there may be no economic reasons for fishermen to conserve these species". Thus, for some species, Turner's account, which incidentally includes more biology (diet, length-weight relationships, distribution etc.) than is usually presented in taxonomically orientated books, may remain all we will see of them, as they are silently extinguished by the offshore fisheries of Lake Malawi.

This is a good, and useful, book.

DANIEL PAULY
Fisheries Centre,
University of British Columbia,
Vancouver