

### CRYPTIC SPECIES IN WESTERN AND CENTRAL AFRICA CICHLIDS

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Cichlidae constituted one of the most studied groups of Teleostean and are often considered as the example of adaptive radiation. Indeed, it is well known that some lineages present a rapid morphological diversification leading to the identification of different species (e.g. of sympatric speciation in lake). However, another surprising and opposite feature of this group is the presence of species with a large repartition area (SLRA). Presence of specimens belonging to the same “morph” from Senegal to Cameroon arises the question of the species status and the presence of cryptic species was advocated. To test these two alternative hypotheses “SLRA” versus “cryptic species”, we focused on two well known species: *Tilapia guineensis* and *Sarotherodon galilaeus* for which several locality were sampled in Western and Central Africa. Landmark-based geometric morphometric methods were used to capture information about shape, by obtaining the x and y coordinates of 17 homologous landmarks. Differences in the sets of coordinates between specimens were eliminated by a typical geometric morphometric approach in which the specimens were placed in a procruste superimposition on the iteratively estimated mean reference form, using the generalized procruste analysis (GPA) procedure. We visualised the distance matrix obtained with the principal component analysis using the neighbour joining clustering algorithm. Molecular analysis was done on muscle tissues and 1140 pb of the complete cytochrome b were sequenced to identified specimens. We demonstrated that these two entities are two species complex that displayed similar colonization pattern in Africa and we validated the cryptic species hypothesis.