

Abstract

The largely endemic cichlid species flocks of the East African Great Lakes are among the prime examples for explosive speciation and adaptive radiation. Speciation rates differ among cichlid lineages, and the propensity to radiate has been linked to intrinsic and extrinsic factors such as sexual selection and ecological opportunity. Remarkably, only one cichlid tribe—the Boulengerochromini—comprises just a single species, *Boulengerochromis microlepis*, a predominantly piscivorous endemic of Lake Tanganyika and the world's largest cichlid. While the lineage diverged from its closest relatives at the onset of the Lake Tanganyika radiation >8 MYA, mitochondrial control region sequences collected in this study dated the most recent common ancestor of *B. microlepis* to ~60–110 KYA. There was no evidence of phylogeographic structure in the lake-wide sample. Patterns of genetic diversity and demographic analyses were consistent with slow and steady population growth throughout the reconstructed timescale. Additionally, the shallow divergence within the species may be related to a possibly large variance in reproductive success in this highly fecund species. Trophic niche space restriction by sympatric piscivores, lack of geographic structure, low potential for sexual selection arising from the monogamous mating system and extinction may have contributed to keeping the lineage monotypic.