

Nation-wide inventory and distribution of freshwater fishes and frogs of South Africa

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Over the last century, freshwater fishes and frogs in South Africa, and indeed globally, have become increasingly imperilled by multiple impacts. Poor understanding of biodiversity has been identified by the Convention on Biological Diversity (CBD) as a major impediment to effective conservation planning and management of threatened taxa. Evidence from molecular studies indicates that a remarkable proportion of cryptic diversity within almost all freshwater fishes and frogs studied thus far in South Africa. The underestimation of species richness has profound conservation implications for these threatened groups. There is therefore an urgent need for an approach that can be used to assign specimens to known species, as well as accelerating the pace of species discovery in order to identify priorities for taxonomic research and conservation actions. The research aims to undertake comprehensive surveys to collect DNA tissue samples from all type localities of all species (both valid and synonyms) of freshwater fishes and frogs across South Africa for Barcoding, a novel approach that facilitates rapid inventory of the country's biodiversity. Findings of this research will contribute towards fulfilment of national policy on biodiversity conservation enshrined in the National Biodiversity Act and addressing the "taxonomic impediment" identified by the CBD.