

A First for Parasite Conservation in South Africa: The Case of Threatened Freshwater Fishes in The Cape Fold region

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Abstract: Species conservation is no novel concept, however, in recent years the conservation of parasitic species has received considerable attention. A global initiative has caught momentum to include this highly diverse group of organisms present in almost all potential hosts across the globe. At first deemed an unconventional idea, it became apparent that parasitic species contribute considerably to the biomass of ecosystems and its functioning, rendering them essential candidates for application in the conservation of ecosystems. At least 50% of South Africa's ~118 freshwater fish species are threatened and only a fraction of parasitic data is known for all of these species, which was last assessed in the early 1980s. Since then, a considerable increase in parasitological studies came to light, and a number of alien and invasive fishes with their co-introduced and potential co-invasive parasitic species have been translocated across freshwater systems. The present project aims to facilitate a first initiative in South Africa to assess freshwater fish parasite diversity and communities from six National Freshwater Ecosystem Priority Areas that are greatly underrepresented in historic and current biodiversity data. The first eight fishes of conservation concern and their associated parasite communities are discussed with a way forward for utilising these unique parasites as a conservation tool.

Keywords: Endangered, IUCN Redlist, Parasite Conservation, Threatened

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