

MSc opportunities

The Freshwater Field Unit (Thlapi: Fish Systematics & Taxonomy research group) at the NRF-South African Institute for Aquatic Biodiversity (NRF-SAIAB) in Makhanda is looking for two MSc students to join the research group in 2027. The research group focuses on freshwater fish biodiversity, taxonomy, and species identification using integrative scientific approaches. We combine fieldwork, collection-based research, molecular techniques, and data analysis to better understand freshwater fish diversity.

Project 1: Genetic diversity, structure, and connectivity of *Hydrocynus vittatus* Castelnau, 1861 in the Inkomati and Phongolo River Systems

Supervisors: Dr Yonela Sithole, Dr Tholoana Ntokoane and Dr Mandla Magoro

This project aims to investigate the genetic diversity, structure, and connectivity of *Hydrocynus vittatus* populations in the Inkomati and Phongolo river systems, and to evaluate their relationship with the Middle Zambezi population, in order to inform conservation and management strategies for the species in southern Africa.

Project 2: Assessing long-term genetic and ecological patterns of *Sandelia bainsii* Castelnau 1861 in Eastern Cape river systems, South Africa

Supervisors: Dr Tholoana Ntokoane, Dr Yonela Sithole and Dr Tadiwa Mutizwa

The aim of this project is to apply an optimised historical DNA extraction protocol to museum specimens of *Sandelia bainsii* collected from the Kowie, Great Fish, and Keiskamma river systems to investigate temporal and spatial changes in genetic diversity patterns of this species and compare these trends with historical and contemporary riverine ecological indicators.

Eligibility

- BSc honours Zoology, Genetics or related field with a minimum of 65%
- Interest in genetics, taxonomy and ecology
- Willingness to conduct field and lab work

Duration of the projects

February 2027-December 2028

Successful applicant will be based at NRF-SAIAB, Makhanda. The students may register through any accredited South African university. The project running cost will be covered by the institute. Successful applicants will be required to apply for bursaries with proposal developed in collaboration with the supervisors.

Please send your CV with two contactable references, one page motivation letter and academic record to T.Ntokoane@saiab.nrf.ac.za and Y.Sithole@saiab.nrf.ac.za no later than **08 June 2026**.