

Postdoctoral Research Fellowship Opportunity

Host Institution: South African Institute for Aquatic Biodiversity (SAIAB), Grahamstown/Makhanda, South Africa

Duration: 8-24 Months, to be negotiated during interviews

Start date: Nov/Dec 2026

Stipend: R320 000 per annum

We invite applications for a Postdoctoral Research Fellowship to contribute to a project advancing the assessment of marine fish diversity and populations in South Africa. The over-arching project integrates underwater visual census methods, environmental DNA metabarcoding, machine vision and AI-assisted workflows and open standardised data systems to develop knowledge products that can support biodiversity and resource management. This postdoc is focussed on the genetics and eDNA components which aim to:

- Assess barcode sequence coverage of South African marine fish by data mining public databases for common gene targets.
- Mobilise and curate existing sequence data from researchers, museums and specimen collections, including the National Fish Collection at SAIAB to generate sequence data to fill taxonomic gaps in the database.
- Develop foundational datasets and database management strategies to enable broadscale adoption of eDNA for fish classification,
- Plan, collect, process and analyse at least 100 environmental DNA (eDNA) samples using established laboratory workflows,
- Build FAIR-aligned data pipelines and repositories, and
- Co-develop analysis and reporting frameworks with management stakeholders.

The postdoctoral fellow will join this effort to address different aspects of the work depending on their skillset and the agreed duration of the fellowship.

Minimum Requirements

- PhD (awarded within the past 5 years) Molecular Ecology, Marine Biology, Genetics, Biodiversity Science or related field. Candidates who have submitted their thesis and are awaiting examination outcomes will be considered.
- Peer-reviewed publication record.
- Verifiable expertise taxonomic assignment using barcodes, eDNA research, laboratory-based sample processing, data quality control and data management.
- Experience with biodiversity databases and sequence submission

Desirable Skills:

- Advanced programming in Python, R or similar language,
- Taxonomy/systematics of fishes
- Data management system development and biodiversity informatics,
- Experience working in multidisciplinary and/or international research teams,
- Ability to translate scientific outputs into formats relevant for management and policy,

Application process

Applicants should submit:

- Cover letter outlining research interests, relevant skills, and how they align with the fellowship,
- CV (NB: Include background details and nationality),
- Contact details of two referees.

Applications should be sent to Dr Gwynneth Matcher (g.matcher@saiab.ac.za) by 30th of August 2026