Africa's Largest Fish Collection is Moving

The largest collection of fish specimens on the continent, comprising 880 000 specimens, is moving to its new multimillion Rand facility, in Grahamstown.



South African Institute for Aquatic Biodiversity Managing Director Prof Paul Skelton in front of the new National Fish Collection facility.

he National Fish Collection, developed and managed by the South African Institute for Aquatic Biodiversity (SAIAB), houses the largest collection of southern African fish anywhere in the world. It is the largest fish collection in Africa and the second largest in the Southern Hemisphere.

The collection serves mainly as a reference for scientists to study the identification and conservation of the region's fish biodiversity. Specimens are loaned to researchers based at SAIAB as well as the broader South African and international research communities. Selected specimens are used extensively for education, providing a fascinating insight into how scientists develop our understanding of the region's diverse fish fauna.

The collection spans over 140 years of collecting, with records revealing the oldest specimen dating back to the 1860s. There are specimens from about 170 countries. With ongoing research, exploration and new genetic techniques, more species are being added all the time. Some of the specimens were received as gifts or exchanges from other research organisations and museums.

In addition to alcohol-preserved wet specimens, the National Fish Collection contains cleared and stained fish cartilage and bones, a dry skeletal collection, frozen tissue for genetic research, microscopic slides, X-ray plates, photographic slides, paintings and scientific drawings and illustrations.

Some treasures found in the collection include the first six-gill stingray known to science. The collection also boasts one of the largest collections of coelacanth specimens in the world. Unique to the collection is an albino great white shark, caught by a local fisherman at Boknes, on the Eastern Cape coast.

This continuous growth of the collection was one of the main reasons for the construction of a new, stateof-the-art, two-story facility next to the SAIAB building. The size of the collection had simply outgrown the former storage area.

Another concern was the occupational health and safety of SAIAB staff and visitors – the preservatives in which the specimens are stored are volatile and flammable. The new facility boasts double-thick walls, with metal-slatted windows which can open quickly in the case of a sudden build-up of fumes, while the ventilation system kicks in with a heavy blast to clear the air. The entire collection will be held on four kilometres of mobile shelving.

"This new facility will play a critical role in safeguarding this national asset," said SAIAB managing director Prof Paul Skelton. "The investment is a clear statement by the institute's parent organisation, the National Research Foundation and the South African government that our natural heritage matters and will be looked after."

"The National Fish Collection is a uniquely valuable and irreplaceable research and reference tool It is also an invaluable record of the past, and represents both a national and international asset."

The collection is now being moved from its current resting place in the basement of the institute to the new facility, which was officially opened by Department of Science & Technology (DST) Deputy Minister Derek Hanekom earlier this year.

Over 78 800 individual lots are being checked, rearranged according to bottle size and catalogue number,



Prof Paul Skelton and Deputy Minister of Science & Technology Derek Hanekom raise their glasses to the new facility.

and their label data reviewed. Each bottle is then packed in preparation for the move, which is expected to take several months.

The launch of the SAIAB Information Portal coincided with the opening of the fish collection facility. The information portal is a way of communicating SAIAB's biodiversity- and scientific information directly and simply from its database.

In addition to online images of, and specimen information about, southern African fishes (as well as fishes from elsewhere), the portal offers online GIS maps of southern African freshwater fish distributions, as well as the opportunity to learn about fish classification and identification through the use of online taxonomic keys.

"The National Fish Collection is a uniquely valuable and irreplaceable research and reference tool," said DST in a statement. "It is also an invaluable record of the past, and represents both a national and international asset."

> Right: Jerraleigh Kruger lifts a specimen from one of the large storage tanks.

