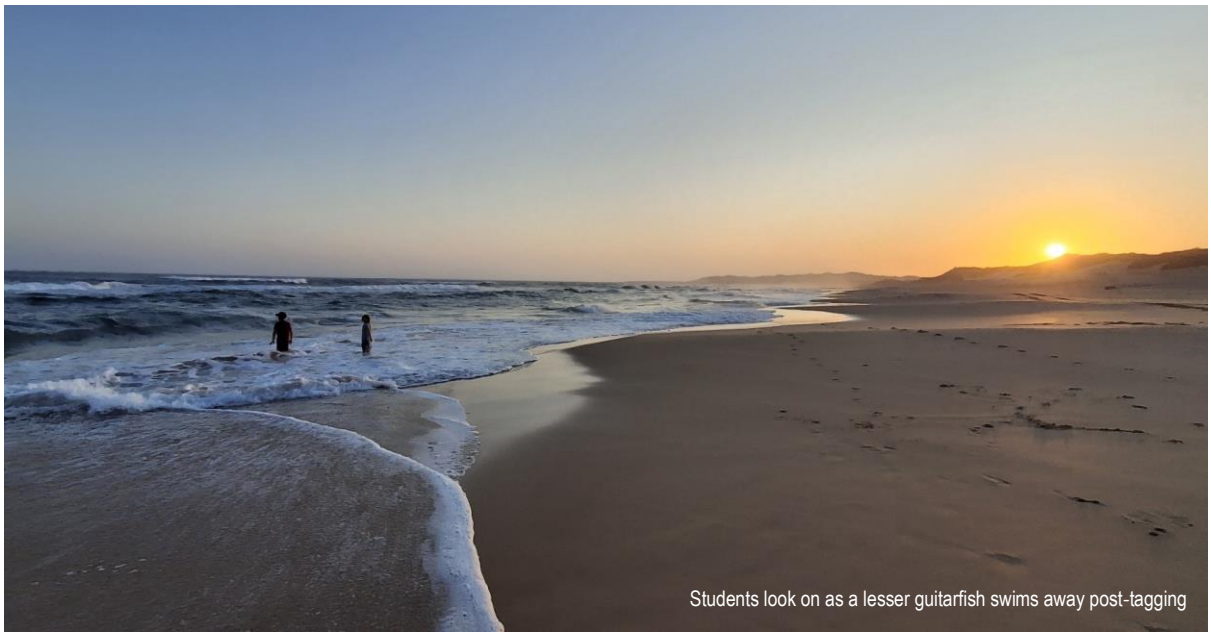
Acoustic Tracking Array Platform

NEWSLETTER

May 2025 | Issue 1



Students look on as a lesser guitarfish swims away post-tagging

Greetings everyone

We've decided to launch a short, biannually distributed newsletter, which serves as an update on the happenings of the ATAP, ensuring that our stakeholders – i.e. you – are being kept in the loop. Transparency and open communication is very important to ensure that our wonderful network keeps functioning efficiently, and to ensure that you are happy.

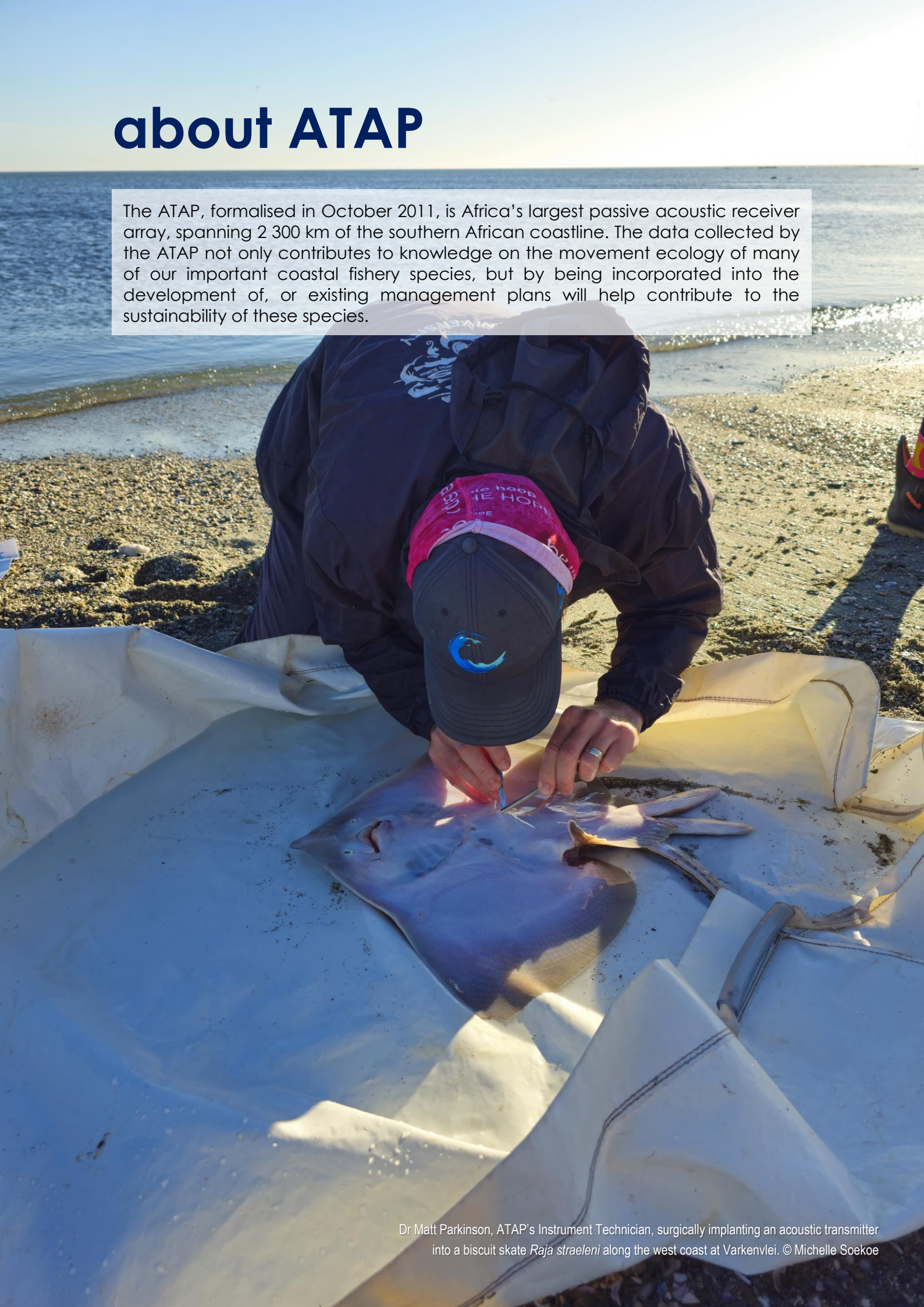
As always, many thanks go to our funders for their ongoing support, both in terms of infrastructure and running expenses. Without their support, as well as the incredible assistance of our deployment partners, we wouldn't be able to maintain our nationwide array. If you ever have any questions or concerns, please feel free to reach out to either myself or Matt. We are here to make sure you get the best out of the platform to meet your movement ecology research needs!

Happy tracking, and be safe.

Taryn & Matt

about ATAP

The ATAP, formalised in October 2011, is Africa's largest passive acoustic receiver array, spanning 2 300 km of the southern African coastline. The data collected by the ATAP not only contributes to knowledge on the movement ecology of many of our important coastal fishery species, but by being incorporated into the development of, or existing management plans will help contribute to the sustainability of these species.



Dr Matt Parkinson, ATAP's Instrument Technician, surgically implanting an acoustic transmitter into a biscuit skate *Raja straeleni* along the west coast at Varkenvlei. © Michelle Soekoe

ATAP in a nutshell

The current ATAP network comprises **285 receivers** (models 69 kHz, VR2W and VR2AR, Innovasea, Canada) distributed from St Helena Bay in the Western Cape, South Africa, through to Santa Maria in southern Mozambique (Figure 1). The ATAP is maintained by a group of dedicated deployment partners, including Shark Spotters, Reel Science Co., South African Shark Conservancy, Marine Dynamics, Oceans Research Institute, South African Environmental Observation Network Elwandle Node, Rhodes University, Oceanographic Research Institute and SharkLife. Additionally, retrieval and deployment of receivers around the De Hoop Marine Protected Area and adjacent region is assisted by CapeNature, Barry Skinstad assists with receivers deployed in Plettenberg Bay, and South African National Parks assists with receivers deployed in the Knysna Estuary and Storms River. Your ongoing support and assistance is so appreciated!

Figure 1: The current receiver (white dots) network forming South Africa's Acoustic Tracking Array Platform, covering x km of the coastline.

Currently, the ATAP detects the movements of **44 species** (12 fishes, 18 sharks, 10 rays, 1 skate, 3 turtles), with at least 950 active acoustic transmitters in the water. To date, more than **30 million individual detection points** have been recorded, representing a significant amount of movement data! Additionally, many datasets have matured and/or are complete. If you are unsure how much data have been collected on your tagged animals, please do reach out (either to atap@saiab.ac.za or TS.Murray@saiab.nrf.ac.za), and we will happily put a data report together for you. If you have a preferred format in which you would like your data, please feel free to request this too, and we will try our best to meet your needs.

From top to bottom: Smoothhound shark *Mustelus mustelus* tagged in the Port of Ngqura, a blue stingray *Dasyatis chrysonota* in the Knysna Estuary, a common eagle ray *Myliobatus aquila* from van der Riets in Algoa Bay, an adult dusky kob *Argyrosomus japonicus* in Algoa Bay (© Amber Childs), and a bronze bream *Pachymetopon grande* along the Port Alfred coastline.

Tagging: 01 Jun '24 to 31 May '25

Several different research teams from a number of different research institutions have been actively tagging over the past year (01 June 2024 to 31 May 2025). This includes NRF-SAIAB, Two Oceans Aquarium, Rhodes University, KwaZulu-Natal Sharks Board, Oceanographic Research Institute and Marine Megafauna Foundation, South African National Parks and South African International Maritime Institute.

During this period, 157 individual animals from 14 species (2 turtles, 3 fishes, 4 rays, 5 sharks) have been tagged, with two new species added to the list of those monitored. These include bronze bream *Pachymetopon grande* and lesser guitarfish *Acroteriobatus annulatus*.

Bronze bream are being tagged and monitored as part of a multispecies assessment along the Port Alfred coastline by the Southern African Fisheries and Ecology Research Lab at Rhodes University, forming part of their greater CareZone project (led by Prof Amber Childs).

carezone

Lesser guitarfish are being tagged as part of a larger collaborative project with Two Oceans Aquarium, Shark Spotters and South African National Parks looking at the bay-scale movements of elasmobranchs in False Bay and Algoa Bay, of which lesser guitarfish is one of the species. Spotted gully sharks *Triakis megalopterus* and common eagle rays *Myliobatus aquila* are the other two species being tagged and monitored.

NEP grant successful

In June 2024, we submitted an application to the National Research Foundation for a National Equipment Programme grant, requesting a little over R 4.2 million. The application strongly motivated for funding to procure more acoustic receivers, specifically VR2ARs (Innovasea). Many of you very kindly put together letters of support (no less than 17 letters!) which we submitted along with our application. It gives us great pleasure to announce that that application was **SUCCESSFUL**, and we have been awarded just shy of **R 3.8 million**. Thank you all so very much for your support!

Out with the old, in with the new

After 13 and a half years, the ATAP logo has undergone a facelift, and we are so proud to share our new logo! We're happy with the outcome, and hope you like the new logo just as much as we do. We've made these available on the SAIAB website under the ATAP page, so if you do need the logo for a presentation or any other documentation, please feel free to download them at the following link: https://saiab.ac.za/wp-content/uploads/2025/05/ATAP-logo.zip.

ACOUSTIC TRACKING ARRAY PLATFORM

MOTIVATION BEHIND THE LOGO?

As one of South Africa's most iconic angling species, and the teleost species with the most tagged individuals, we decided to go with a dusky kob. Can there ever be an acoustic telemetry logo without the classic sound signals? Finally, our favourite part, the location pin not only representing the nature of the data collected by the ATAP, but the wave formations represent aquatic environments, with the gradient in colour being a play on depth.

Congrats to the newly-minted

Dr Toby Rogers

Compiling a PhD thesis is no easy task, and over the years, we've had the pleasure of seeing several movement ecologists, making use of data collected by the ATAP, graduate with their doctorate degrees.

Dr Toby Rogers is the most recent graduate, gaining a PhD in Biological Sciences from the University of Cape Town under the supervision of Prof Justin O'Riain and Dr Alison Kock. His study focused on the movement ecology of the bronze whaler shark *Carcharhinus brachyurus* in southern Africa.

OTN survey on open data

OCEAN TRACKING NETWORK

The Ocean Tracking Network's International Data Management Committee is conducting a short **anonymous survey** to gather global perspectives on researcher perceptions and barriers to **data sharing** and **open-access data**. This online survey will take approximately 20 minutes to complete. Interested participants are asked to only complete the survey once.

The survey can also be accessed here: OTN IDMC Survey on Telemetry Data.

Creature feature

Every newsletter, we'll be doing a creature feature, focusing on one tagged species currently being monitored by the ATAP. First up, **biscuit skates *Raja straeleni***. Biscuit skates have a broader distribution across the west coast of Africa, from Morocco to South Africa, and are currently listed as Near Threatened on the IUCN Red List of Threatened Species. Some good news is that the South African population is showing some stability though.

To date, eight individuals (six female, two male) ranging in disc width from 470 to 615 mm have been tagged at Varkenvlei along South Africa's west coast at St Helena Bay as part of a multispecies assessment of elasmobranchs in this region in collaboration with Reel Science Co. and NRF-SAIAB. Only three of the eight tagged have been detected so far, together recording 723 detections.

With only one receiver rollover having taken place so far, we anticipate some good detections over the next two years, linking these results with catch data from the competitive recreational shore fishery.

Ways to help the ATAP

The ATAP, being funded by several different funding bodies and institutions, is always expected to report on various activities. For these deliverables, we're required to submit information related to different projects (without giving away any of the details) as well as provide photographs related to fieldwork activities. As such, there are a number of ways that you, as an ATAP user, can assist! Any of the following things will help us greatly when it comes to reporting:

1. Please ensure you **send** us updated tagging **metadata** and/or deployment metadata **soon after the fieldwork** has taken place. In this way, we're able to keep better track of your animals for you, as well as the array.
2. Send through a couple of **photographs related to fieldwork activities**. These can include animals being tagged, close ups of tagged animals, retrievals and deployments of receivers. All photographs will be fully acknowledged, and will remain the property of the person who took the photograph.
3. Please share any **ideas** you may have **for blog posts or social media posts**. We are always more than happy to share the incredible work you're doing!
4. Please **let us know if your project has done something interesting** whether it be interesting results, something interesting you saw in the field, anything. We'd love to hear! Anything related to points 1 to 3 can be emailed through to atap@saiab.ac.za OR alternatively, contact Taryn Murray at TS.Murray@saiab.nrf.ac.za.
5. Because of our successful NEP award, we're going to be expected to keep up with the **platform user forms**. These will, however, be digital in nature and will be controlled via a platform on NRF Connect (the National Research Foundation's portal controlling funding applications). While we realise that these can be incredibly frustrating to complete, we would be most appreciative if you could take the five minutes it takes to complete these forms. We can't thank you enough for your support here.
6. **Please remember to acknowledge the ATAP** in any publications/outputs stemming from data collected by the platform. We have a standard acknowledgement clause that we are more than happy to share with you.