

Introduction

This project builds local capacity for ocean conservation in the greater Aliwal Shoal Marine Protected Area region, where awareness and connection to the MPA remain low due to socioeconomic barriers and ocean-related fear. It combines pool-based snorkel training, guided sea experiences led by a Zulu speaking instructor, and an internship program (Ocean Leadership Program) to support local youth in becoming future ocean ambassadors and conservationists. By creating access and building skills, the project strengthens ongoing community involvement in protecting the MPA. In parallel, manta ray research and monitoring will continue, building on the last four five years of work.

This report provides an update on the progress of Rufford Booster Grant 49554-B, which aims to: (1) build sustainable local conservation capacity among young adults, (2) provide opportunities for underprivileged youth to experience Aliwal Shoal through introductory snorkelling activities, and (3) support the continued research and monitoring of threatened manta rays in South Africa. During this reporting period, activities focused primarily on Outcome 1 (capacity development), which has exceeded initial expectations in both participation and impact. This component has successfully expanded into what is now the Ocean Leadership Programme, where participants are progressing from trainees to active conservation ambassadors within their communities. This growth has strengthened local conservation networks and increased participation in environmental stewardship.

This report also outlines planned activities for Outcomes 2 and 3, which are scheduled to commence on 18 April 2026. The reporting period covers project activities conducted from the funding allocation in December 2025 to 10 April 2026.

Outcome 1: Build local capacity for conservation within the Aliwal Shoal Marine Protected Area through a Rufford-sponsored youth leadership and career development program.

Interest in the Ocean Leadership Programme substantially exceeded expectations, with 30 applications received for an initial target of five placements. In order to maximise impact and support as many motivated young conservationists as possible, 20 candidates were initially accepted. Following attrition due to alternative employment and study opportunities, the cohort stabilised at 13 active participants. To allow broader participation despite limited funding for scuba training, a transparent discussion was held with candidates regarding programme costs. Several participants agreed to cover some of their own diving expenses in exchange for receiving the Aliwal Shoal Oceanography Course and freediving training at no cost. This flexible approach allowed the programme to significantly expand its reach while maintaining strong participant commitment.

Despite stretching available resources and supervisory capacity, this decision has proven highly successful. The programme has already generated strong local interest and additional support from community members and potential partners interested in sustaining and expanding the initiative.



To date, participants have completed or are progressing through: scuba diving certifications, research diving skills development, freediving training, and the first assessment of the Aliwal Shoal

Oceanography Course. In addition, each intern has been assigned an independent project aligned with their interests and local conservation needs. These projects include environmental education programmes in local schools, development of the Aliwal Shoal Ocean Leadership social media platform, manta ray identification and behavioural data collection, community media initiatives (Aliwal TV), river clean-up and monitoring activities, and local environmental advocacy.

A key focus of the programme is leadership development. Interns are progressively taking ownership of their projects, including independently delivering school outreach programmes, assisting with youth snorkelling experiences, and leading community engagement activities. This approach is designed to ensure long-term capacity development beyond the duration of the grant.

At the start of the programme, all participants completed a needs and expectations assessment to better understand their goals, concerns, and areas of interest. Feedback to date has been overwhelmingly positive, with participants expressing strong appreciation for the opportunity and particularly for the inclusive approach that allowed more students to participate than originally planned.

The cohort represents a diverse group of young South Africans from multiple communities (including Durban, Scottburgh, Umkomaas, Umzinto and Umzumbe) and diverse cultural and socio-economic backgrounds. The programme has intentionally provided a supportive and collaborative team environment, with a strong emphasis placed on professionalism, teamwork, inclusivity, and recognising the value that each participant brings to conservation efforts.

Although this expansion has required significant additional time investment and budget flexibility, the outcomes to date demonstrate substantial value in terms of capacity development, community engagement, and the creation of a growing local conservation network. Participants and community members have already expressed strong interest in sustaining the programme beyond the grant period, and discussions with potential local supporters are underway.

While current funding provides full diving support for five participants, creative solutions are being implemented to ensure all interns gain water-based experience. These include freediving training, participation in nearshore research activities, and leadership roles supporting youth snorkelling programmes. Participants themselves have also begun exploring fundraising ideas to support future cohorts, demonstrating increasing ownership and long-term sustainability potential of the programme.

Indicator 1: Average grade (%) of students (out of 5 selected) passing the Aliwal Shoal Oceanography Course.

Under Indicator 1, strong academic performance within the training programme has been demonstrated thus far. The Aliwal Shoal Oceanography Course participants have achieved the following class averages to date:

- Aliwal Shoal Oceanography Exam 1: 82%
- Oceanography Geology Quiz: 86%
- Oceanography Chemistry Quiz: 83%

Activities 1-3 relating to the development and delivery of the Aliwal Shoal Oceanography Course have been successfully initiated. This includes the creation and delivery of a locally relevant, university-level training resource designed to build technical knowledge among early-career conservationists, as well as the establishment of the Aliwal Shoal Ocean Leadership Instagram platform to disseminate programme activities and conservation messaging.

Due to the academic rigour of the course, combined with the fact that many participants are balancing full-time university studies or employment, the remaining course modules (Physical Oceanography, Marine Biology, and Marine Management) will be completed during the second half of the internship period. Course completion is expected by June 2026, with the possibility of extending delivery to August 2026 to ensure participants are adequately supported and learning outcomes are maintained.

Indicator 2: Percentage of students to complete their sponsored scuba and freedive certifications which will be fully awarded at the end of the internship (150 hours completion).

Under Indicator 2 (skills development and practical training), the following progress has been achieved to date:

- Five participants completed scuba diving certifications funded through the Rufford Small Grant
- An additional two participants independently pursued self-funded scuba certification after being motivated by the programme, demonstrating a positive peer-learning and confidence-building effect
- Five participants have completed SSI freediving certifications, with a further eight currently in progress (representing the full cohort of 13 interns)

Activity 1 has been completed, while Activities 2-4 remain in progress. A total of 26 recorded internship participation hours have been completed collectively by interns during the reporting period (excluding independent project work and informal training time).

The project has also benefited from significant in-kind contributions from the project leader, including over 126 hours dedicated to course development, lecture preparation and recording, student mentorship, application review, interviews, student assessments, and programme coordination between December 2025 and 10 April 2026.

These results demonstrate strong progress toward developing practical field skills and increasing access to professional-level marine research training opportunities.



Figure 2. Scuba diving and freediving certifications supported by the Rufford Foundation.

Indicator 3: Number of articles and/or social media posts written by students during this time. Assessing science communication and writing skills.

Under Indicator 3, over 30 conservation-related posts have been shared across the programme’s social media platforms and participant networks, contributing to increased local awareness and community

engagement around marine conservation issues. All 13 interns have actively shared content across their personal platforms, significantly expanding the programme's reach, alongside coordinated posts from the Ocean Leadership page (developed and managed by the interns), Wild Alliance Africa, and ScubaXcursion Dive Center. All posts have consistently acknowledged the The Rufford Foundation for providing funding support for the Ocean Leadership Programme.

Activities 2-4 are currently in progress. The initial phase of the internship prioritised intensive training, including water-based skills development and foundational coursework, with outreach components scheduled to expand as participants transition into more active project implementation and leadership roles.

Indicator 4: Number of both inshore tidal zone and offshore Aliwal Shoal MPA surveys completed by students (a future thesis opportunity for multiple students).

Offshore surveys within the Aliwal Shoal MPA have progressed well, with a total of 10 research scuba dives completed by four interns to date (several of whom have self-funded their participation). The target for Activity 2 has already been met and is expected to be exceeded within the reporting period. However, Indicator 4 with respect to the inshore sampling work is likely to be the most challenging component to fully achieve. A field training session with Dr Kaylee Smit, focused on methods in the inshore tidal zone, was scheduled for 11 April 2026 but has had to be postponed due to recent flash floods and seasonal river outflow which has turned the inshore color completely brown and the sea rough. This activity will be rescheduled, with the possibility of extending implementation beyond the current reporting period to ensure completion. Therefore Activity 1 has not yet been completed, while Activity 2 is ahead of target.

Indicator 5 is currently in progress, with students actively developing their presentations and preparing to deliver school-based workshops as part of the outreach component of the programme.

Overall, these outputs demonstrate both knowledge transfer and measurable skills development. Significant in-kind capacity contribution leveraged the programme's impact beyond the original scope. This outcome overall contributes to long-term local stewardship for Aliwal Shoal and its threatened marine species through developing scientific skills, leadership, and conservation ownership among local youth.

Outcome 2: Expand access to the ocean and the Aliwal Shoal Marine Protected Area for underrepresented communities and disadvantaged youth.

Additionally including Marine Education activities.

Most local communities remain largely disconnected from the Aliwal Shoal Marine Protected Area due to historical exclusion, economic constraints, and limited access to the ocean, as well as widespread fear of the marine environment. In particular, individuals from nearby informal settlements often lack

the financial means, equipment, or structured opportunities to safely engage with the ocean and participate in conservation activities.

Initial stakeholder engagement has been undertaken with partners including Surfers Not Street Children. Meetings have been held to establish collaboration on introductory ocean-access programmes for underprivileged youth. As a result, the first two snorkelling outreach sessions have been confirmed, with logistical arrangements completed, including transport and food provision to ensure safe and equitable participation.

In parallel, programme planning has begun for a broader community engagement component that will be co-developed with Ocean Leadership interns. This includes structuring future snorkelling-based learning experiences and integrating youth-led facilitation to support long-term programme ownership and continuity. These initial activities represent the first phase of implementation toward reducing barriers to ocean access and increasing inclusive participation in conservation.

Indicator 1: Number of presentations delivered to Zulu heritage schools.

Under Indicator 1, the project has already appointed our Zulu community partner, Lifa Jambane, to support the implementation of Activity 1. However, ocean introduction workshops and formal school engagement activities have not yet commenced and are scheduled to begin shortly. Due to the sequencing of activities and capacity constraints, this component may extend beyond June 2026 to ensure full and effective delivery of Activity 2.

Indicators 2–5 and their associated activities are currently in the development phase. Ocean Leadership interns are actively involved in this process, gaining practical experience in programme design and learning how to plan and deliver conservation education initiatives. Implementation is scheduled to begin on 18 April 2026; however, completion may extend beyond the originally planned end date of June 2026 to accommodate adequate training and delivery quality.

An environmental education programme is currently being co-developed by a group of Ocean Leadership interns. The team has already communicated for initial meetings with 10 local schools, with the intention that interns will progressively take responsibility for designing, facilitating, and leading workshops and presentations. In addition, a structured progression pathway for public presentations is being implemented. Interns will first observe presentations delivered by the project lead at the Local Diver Awareness Day on 19 April, after which they will receive guided mentorship to develop their own

presentation skills. This will culminate in their participation in the local Ocean Festival on 2-3 May 2026, where they will co-deliver presentations aimed at raising awareness of the Aliwal Shoal Marine Protected Area within the broader community.

Outcome 3: Continue long-term Manta Ray and Devil Ray research and monitoring.

Thus far, this outcome has focused on the dissemination of scientific content and consistent social media outreach aimed at raising awareness of, and highlighting the importance of conserving, endangered ray species. Several interns have also been assigned to support the re-establishment of the devil ray ecotourism initiative, which had previously slowed due to the project being managed primarily by a single individual (current project leader) over an extended period.

A key long-term impact of this component lies in capacity building, as the involvement of multiple trained interns now provides the additional human resource required to sustain and expand work along this coastline in a more structured and scalable manner.

Field activities to Sodwana Bay have not yet been completed but are scheduled for May, with the possibility of an additional trip in late April, depending on logistical arrangements and collaborative funding availability.

Indicator 1: Number of manta ray IDs logged.

Under Indicator 1, manta ray identification records are increasing steadily following the establishment of the “South Africa Manta Ray Sightings Updates” WhatsApp group. Three interns are currently active participants in this nationwide citizen science network, which collates photo-identification data for manta rays. To date, the dataset added 27 unique individuals, with interns actively learning how to identify, categorise, and catalogue sightings as part of their training in photo-identification methods. This has effectively contributed to the completion of Activity 2, which will continue as an ongoing component of the programme. No field trips to Sodwana Bay have yet been completed due to the high workload associated with the Ocean Leadership Programme. However, an annual field trip is planned for May during the peak aggregation period, subject to logistical coordination and programme scheduling.

Indicator 2: Number of manta IDs uploaded to public database Manta Matcher with the assistance of youth leadership program.

This component is planned for completion during the Leadership Programme; however, Activities 1-2 have not yet been implemented, as the relevant workshop has not taken place due to competing programme commitments across multiple concurrent training and fieldwork components.

The planned postdoctoral fellowship application to the University of Cape Town was unsuccessful in 2025. A reapplication is planned for June and November 2026, which will enable the expansion of this work to include manta ray tissue sampling and related genetic analyses.

With regard to Indicator 4 (publications and research outputs), progress is ongoing. One Ocean Leadership intern is currently assisting with analysis of existing ray datasets, and the project lead is also a contributing author on an acoustic telemetry manuscript expected to be published later this year.

This indicator is therefore currently in progress, with additional outputs anticipated as data analysis continues.

Indicator 5: Number of people reached on social media platforms including Instagram, Facebook, and YouTube.

Students and interns have been consistently sharing content across digital platforms, including their personal accounts and Wild Alliance Africa channels, among others. In addition, two interns have been assigned to develop content for the Aliwal TV YouTube platform, and this work is currently underway.

Outcome 4: Data Consolidation and Collaborative Research Output

This outcome involves compiling existing datasets on sharks, rays, turtles, and wedgefish (Rhinobatidae), and preparing these for submission to relevant collaborators and scientific databases. A key component of the work will also include training interns in the collection of new citizen science data, as well as supporting their involvement in data analysis and future co-authorship of collaborative scientific publications with field experts.

This process is currently underway; however, formal training and implementation have been delayed due to the intensive nature of the initial programme induction phase. This has been further compounded by the expanded cohort size (13 interns instead of the originally planned five), which has required significantly more time investment in foundational training and coordination. While this has slowed initial progress on this specific outcome, the increased number of interns represents a substantial long-term advantage, enabling a broader scope of work and significantly increased data collection capacity. Although this requires a higher upfront investment in training and supervision, it is expected to substantially enhance long-term research output and project scalability.

Indicator 1: Number of surveys completed.

Offshore surveys within the Aliwal Shoal MPA have progressed well, with a total of 10 research scuba dives completed by four interns to date (several of whom have self-funded their participation). The target for Activity 2 has already been met and is expected to be exceeded within the reporting period. However, Indicator 4 with respect to the inshore sampling work is likely to be the most challenging component to fully achieve. A field training session with Dr Kaylee Smit, focused on methods in the inshore tidal zone, was scheduled for 11 April 2026 but has had to be postponed due to recent flash floods and seasonal river outflow which has turned the inshore color completely brown and the sea rough. This activity will be rescheduled, with the possibility of extending implementation beyond the

current reporting period to ensure completion. Therefore Activity 1 has not yet been completed, while Activity 2 is ahead of target.

Indicator 2: Number of data rows shared with local researchers.

Activity 1 is currently in progress, with four interns trained to independently input data. These interns are also beginning to support peer-to-peer learning, with the intention of scaling this capacity across the full cohort of 13 participants over time. Activities 2-4 have not yet been achieved due to current time constraints and competing programme demands during the intensive initial training and induction phase. These components remain planned for implementation once foundational data management skills are fully established across the group.

Conclusions

Significant progress has been made in establishing and scaling the Ocean Leadership Programme, which has already exceeded initial expectations in both participation and impact. The project has successfully built strong momentum, with key systems, partnerships, and training structures now in place. Further, essential logistical arrangements for the remaining project components have been secured. This positions the project with a high level of confidence in delivering the remaining objectives, while also demonstrating potential for sustained impact, scalability, and long-term conservation outcomes beyond the grant period.

Annex: Current Budget

Several budget adjustments have been made to accommodate the unforeseen expansion and success of the Ocean Leadership Programme, as well as other minor project changes. These adjustments have been managed to ensure that all core activities and project objectives remain fully achievable without compromise. We extend our sincere thanks to the The Rufford Foundation for their continued support throughout this project. Their generous funding has been instrumental in enabling this work, and their commitment to conservation and capacity development is having a meaningful and lasting impact on marine research, education, and stewardship in South Africa.

Table 1 below illustrates the current budget and the remaining budget for fieldwork and education outreach activities, presented in South African rand.

Outcome	Total Budget (ZAR)	Comments	Budget Spent (ZAR)	Remaining (ZAR)
Total Rufford Budget	R259,000.00	Subtracting the 10% admin fee for Wild Alliance Africa	R91,176.00	R167,824.00
Building Local Capacity	R127,000.00	Need to pull from a couple of unforeseen unnecessary items from other budgets.	R91,176.00	R35,824.00
Marine Education	R91,500.00	Some items listed may not be completely necessary*	R0.00	R91,500.00
Continued Manta Ray Research	R40,500.00	Some items listed may not be completely necessary*	R0.00	R40,500.00

*For instance, the ability to borrow a neighbour’s car and contribute funding (R6,500.00), instead of an extra 2x rental cars