



SAVING OUR SPECIES

Loggerhead Turtle

2022-2023 annual report card

Summary

Management sites	Northern NSW; NSW Coast
Action implementation	12 (of 13) management actions were fully or partially implemented as planned for the financial year.
Total expenditure	\$177,026 (\$125,850 cash; \$51,176 in-kind)
Partners	Australian Seabird Rescue; Environment and Heritage Group; NSW Department of Primary Industries - Marine Parks; NSW Marine Estate Management Strategy - Marine Estate Management Authority



Scientific name:
Caretta caretta

NSW status:
Endangered

Commonwealth status:
Endangered

Management stream:
Partnership (widespread)

Photo: Penny Drury

Priority management site: Northern NSW

<p>Local government area: Ballina; Byron; Clarence Valley; Coffs Harbour; Richmond Valley; Tweed</p> <p>Partners: Australian Seabird Rescue; Environment and Heritage Group</p>	<p>Population outcome</p> <ul style="list-style-type: none"> ● On track ● On track (inferred) ● Not on track (inferred) ● Not on track
---	--

Monitoring

Species population monitoring by one or more methods indicates response to management over time and provides an outcome measure.

Monitoring metric	Activity index
Annual target	Greater than 50% of nests recorded through NSW TurtleWatch result in successful hatchings.
Long term target	Secure the species in the wild for at least the next 100 years.
Monitoring result	66% of nests recorded hatched
Scientific rigour of monitoring method	Moderate
Conducted by	Environment and Heritage Group

Investment

Participant	Cash	In-kind
Australian Seabird Rescue	\$0	\$40,000
Environment and Heritage Group	\$75,000	\$0

Management actions

The following actions are those identified as being required in financial year 2022-2023 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Entanglement in or ingestion of marine debris	Plan and promote marine debris beach clean-up event/s. Citizen scientists will engage in picking up marine debris along the beaches and use weighing machines and Tangaroa Blue's app to record information on the volume and type of debris found.	Yes
Lack of knowledge of important habitat areas in NSW including nesting beaches	Analysis of existing datasets and historical records to determine trends in the frequency and success of marine turtle nesting in New South Wales.	Yes

Lack of knowledge of the species and its threats in NSW to inform management	Develop and implement citizen science program 'NSW TurtleWatch' to monitor turtle tracks, sightings of turtles, breeding activity, monitor light pollution and marine debris.	Yes
Lack of knowledge of the species and its threats in NSW to inform management	Community education program to be developed and delivered.	Yes
Lack of knowledge of the species and its threats in NSW to inform management	Ongoing planning and adaptive management of the NSW TurtleWatch program.	Yes
Lack of knowledge of the species and its threats in NSW to inform management	Ongoing implementation of the light pollution program.	Yes

Threat outcome

Assessment on the status of critical threats at this site.

Threat	Annual target	Threat status
Entanglement in or ingestion of marine debris	Greater than 150 kg marine debris removed and reported through NSW TurtleWatch App.	On track
Lack of knowledge of important habitat areas in NSW including nesting beaches	Greater number of annual average nesting events recorded post-COVID than pre-COVID (9 nesting events)	On track
Lack of knowledge of the species and its threats in NSW to inform management	Stabilising or decrease of threat metrics reportable through the NSW TurtleWatch App (e.g., coastal erosion occurrences less than 250, light sources less than 250, vehicle incursions less than 30)	On track

Site summary

Volunteer and public interest in NSW TurtleWatch continues to grow each year with more people being added to the contacts and mailing list and the program has increased volunteer recruitment to almost 300 people. Volunteer workshops (7) were conducted this season, both online and in person. A total of 60 volunteers attended these workshops, an increase from 40 participants in the previous season. Workshops covered training in the NSW TurtleWatch App, practical nest protection, nest monitoring, and new volunteer training.

In addition to the regular volunteer beach surveys, volunteers assisted with nest monitoring when nests were identified. Two nests were monitored at Ballina and Grassy Head from approximately 60 days incubation. Volunteers (11) contributed 38 hours to monitor these 2 nesting sites. The Wollongong nest on the South Coast was moved to an incubator and checked twice daily throughout the incubation period, totalling approximately 40 hours of volunteer time. For the Shelly Beach nest, NSW TurtleWatch was in an advisory role and NSW National Parks and Wildlife Service was the lead for the volunteers at this site. This nest showed a high public interest and logged over 200 hours of staff and volunteer time through the monitoring process, including weekly meetings to ensure the successful outcome of the nest. In total, NSW TurtleWatch volunteers contributed approximately 78 hours to the monitoring of marine turtle nests this season. Of the beach surveys, the NSW TurtleWatch App tracked 359 volunteer hours, tallied while on 357 individual surveys, at 24 discrete beaches. This effort totaled 851 kilometers walked by volunteers watching for turtles. Volunteer-collected marine debris totalled 158 kg, with the most commonly found pieces being small plastic, consumer items and packaging. This debris was collected by 144 individual volunteers.

The NSW TurtleWatch page has been updated and is now live online at: <https://seabirdrescue.org.au/projects>. Australian Seabird and Turtle Rescue (ASTR) has its main hospital and education centre in Ballina. The current space has an old marine turtle nesting display that has limited information and is outdated. ASTR plan to update the educational materials on nesting turtles and the NSW TurtleWatch program for visitors and guests to the centre. In May 2023 the old display was removed and the area cleaned. A new sea turtle model for the display case has been ordered and arrived and small hatchling models were purchased for a display of a nesting sea turtle and hatchlings. The text for the display has been drafted and is under revision. The wall behind the display case will focus on the sea turtle life cycle and the large wall adjacent to the display case will focus on NSW TurtleWatch and nesting. A graphic design team has been engaged to develop the signage; they have completed other displays at the centre so will allow for the designs to remain consistent. This task will be completed over the next few months.

Contributing site (funding opportunity): NSW Coast

Local government area:

Ballina; Bellingen; Byron; Central Coast; Clarence Valley; Coffs Harbour; Kempsey; Lake Macquarie; Mid-Coast; Nambucca Valley; Newcastle; Northern Beaches; Port Macquarie-Hastings; Port Stephens; Randwick; Richmond Valley; Sutherland Shire; Tweed; Unincorporated - Sydney Harbour Area; Waverley; Wollongong; Woollahra

Partners:

Environment and Heritage Group; NSW Department of Primary Industries - Marine Parks; NSW Marine Estate Management Strategy - Marine Estate Management Authority

Population outcome



On track



On track (inferred)



Not on track (inferred)



Not on track

Outcome traffic lights are not determined for contributing sites.

Investment

Participant	Cash	In-kind
Environment and Heritage Group	\$4,000	\$11,008
NSW Department of Primary Industries - Marine Parks	\$0	\$168
NSW Marine Estate Management Strategy - Marine Estate Management Authority	\$46,850	\$0

Management actions

The following actions are those identified as being required in financial year 2022-2023 to secure the species in the wild.

Threat	Management action	Implemented as planned?
Collision with boats and other marine traffic causing injury or mortality	Improve reporting and data sharing on threatened and protected species threats to support evidence-based decision making, including linking and enhancing existing databases, raising awareness of reporting pathways, actively analysing and communicating data more regularly, and integrating research and data into the Monitoring Program.	Yes
Entanglement and bycatch in shark nets, traps, lines and other fishing gear causing injury or mortality	Timely review of monthly by-catch data to assess the trigger-point for incidental by-catch in Shark Meshing (Bather	Yes

	Protection) Program. Liaise with New South Wales Fisheries to discuss appropriate by-catch reduction actions.	
Entanglement in or ingestion of marine debris	Community engagement activities aiming to improve strategic planning and coordination across New South Wales, such as to coordinating a response to turtle nesting, provide training, establish working groups and purchase emergency response equipment. Identify priority research and collaboration needs with key stakeholders.	Yes
Increased diseases (e.g. coccidiosis) impacting population health	Training-related activities including preparedness training day and marine wildlife debriefs.	Yes
Increased diseases (e.g. coccidiosis) impacting population health	Develop management protocols for cold temperature turtle nests and deliver turtle nest training.	Yes
Lack of knowledge of the species and its threats in NSW to inform management	Review and consolidate historical species incident records from government agencies and licensed rescue groups for analysing trends in threats to the species.	No - logistical delays
Lack of knowledge of the species and its threats in NSW to inform management	Develop a research priorities plan, work with research institutions to deliver priority research on key threats. Development of new and novel diagnostic techniques to better understand priority threats to marine species. Develop strategies for mitigating species interactions.	Yes

Site summary

These actions are those identified as being required in 2022-23 to secure the species in the wild. These actions are being delivered as part of the Marine Estate Management Strategy (MEMS) – Initiative 5: Reducing impacts on threatened and protected species. The identification and delivery of priority actions in the MEMS aims to reduce threats to protected and threatened marine species identified in the Threat and Risk Assessment. Many of the management actions delivered in this report have outcomes against a range of threats, not just the one it was attributed to.

Monitoring the reduction of threats is captured in the Marine Integrated Monitoring Program: <https://www.marine.nsw.gov.au/marine-estate-programs/marine-integrated-monitoring-program>

New South Wales Marine Estate Threat and Risk Assessment Final Report: https://www.marine.nsw.gov.au/__data/assets/pdf_file/0010/736921/NSW-Marine-Estate-Threat-and-Risk-Assessment-Final-Report.pdf

Marine Estate Management Strategy: https://www.marine.nsw.gov.au/__data/assets/pdf_file/0007/815596/Marine-Estate-Management-Strategy-2018-2028.pdf

Progress towards implementing the MEMS and delivering the vision will be measured and reported through the Marine Integrated Monitoring Program (MIMP). One of the key purposes of the MIMP is to evaluate the effectiveness of management initiatives and actions that aim to reduce priority threats and risks. The Integrated monitoring and evaluation framework for the MIMP integrates environmental, social, cultural and economic components, as well as threats and stressors, to measure and demonstrate progress of the MEMS. The framework was developed in collaboration with representatives from each of Marine Estate Management Authority (MEMA) agencies and the Marine Estate Expert Knowledge Panel (MEEKP), and can be found here: https://www.marine.nsw.gov.au/__data/assets/pdf_file/0004/1193296/MIMP-Framework.pdf

Saving our Species 2022-2023 annual report card for Loggerhead Turtle (*Caretta caretta*). For more information refer to the specific strategy in the Saving our Species program.