

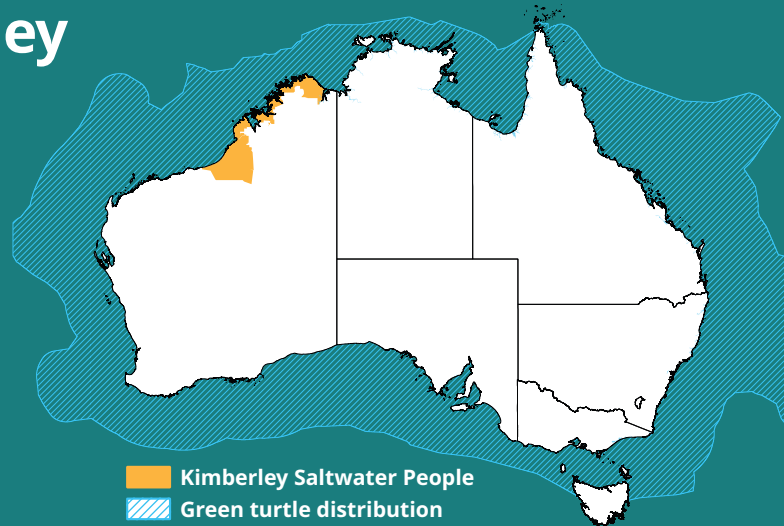
Green turtle and Kimberley Saltwater Country

© Kimberley Indigenous Saltwater Advisory Group (ISWAG)¹

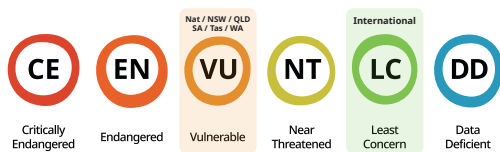
Common name: Green turtle

Scientific name: *Chelonia mydas*

Language names: *There are many language names across the Kimberley*



Status



Green turtles are also listed as Marine and Migratory species under the EPBC Act.

Description

Green turtles are a large migratory marine species that are slow breeding and long-lived: they reach sexual maturity between 20-40 years of age and can live for more than 80 years. Green turtles spend their entire lives in the ocean, except for mature females that undertake reproductive migrations every two to five years and return to nest on the beach where they hatched.

Green turtles typically lay around 100 eggs per clutch, with nest temperature determining the sex of the hatchlings. For successful incubation, nests in the sand must not be subjected to flooding or erosion and kept at a persistent temperature between 25-35 degrees. It is estimated that as few as 1 in 1,000 hatchlings survive to adulthood.



Green turtle. Photo: Mark/stock.adobe.com

Distribution

Green turtles are found worldwide primarily in subtropical and temperate regions of the Atlantic, Pacific, and Indian Oceans, and in the Mediterranean Sea.

In the Kimberley, Green turtles occur predominantly from the North-West Shelf and Scott Reef/Browse Island stocks, with smaller numbers from Ashmore Reef, Coburg Peninsula and other Australian rookeries (ISWAG, unpublished data).

Habitat

Green turtles use a wide variety of habitats throughout their lifetime. They are highly dependent on coastal seagrass meadows, coral reefs and macroalgae communities for foraging.

Threats

The [Recovery Plan for Marine Turtles](#) lists key threats:

- **Climate change** variability
- **Marine debris**, leading to entanglement and ingestion
- **Chemical and terrestrial discharge** (acute and chronic)
- **International take**, outside and within Australia's jurisdiction
- **Terrestrial predation**
- **Fisheries bycatch** and **vessel disturbance** (international and domestic)
- **Light pollution** and **noise interference** (acute and chronic)
- **Infrastructure/coastal development** and **dredging/trawling**, causing habitat modification
- **Diseases and pathogens**.

Cultural Connections

Green turtles have very high cultural, spiritual and conservation value to Kimberley Indigenous people, and feature in many stories, ceremonies, traditions and contemporary activities. They are important to Kimberley saltwater groups for cultural purposes and as a food resource. Traditionally people spear them from reefs and boats and some groups harvest their eggs. Kimberley people have harvested Green turtles sustainably for thousands of years, it is important these cultural practices are maintained into the future.

“For Yawuru, hunting and fishing are more than a recreational activity. They are an expression of culture that reconnects people with their Country, their spirit, their ancestors and Bugarrigarra.”

Yawuru Cultural Management Plan

The interconnected natural and cultural importance of Green turtles and their saltwater habitat is identified within all nine Indigenous Sea Country plans in the Kimberley region. These plans also contain specific details regarding important nesting and foraging places, maps, and seasonal timing of breeding and migration. Green turtles are one of six targets in ISWAG’s 10-year plan for Indigenous-led regional Sea Country management¹.

“Walee... are important totems, and a rich food source. Our Law that says you should only hunt in the right season, only take what you need, and share it around with families.”

Kallum Mungulu, Director
Dambimangari Healthy Country Plan 2012-2022

Kimberley Indigenous Rangers have been involved in monitoring, research and management including satellite tagging and tracking to understand movement, habitat and connections between nesting and foraging grounds and genetic studies to understand stock origins.

Cultural Values

Country

Green turtles in the Kimberley are a key indicator of the health of Country. Many seasonal indicators link the movement and nesting patterns of Green turtles, and people read Country to determine the health of Green turtles. Their movement also influences the movement of people across Country for harvesting and ceremony.

Indigenous Traditional knowledge about cultural use, consumption and seasonality is passed on verbally for example where local Green turtles feed, recognising seasonal migration of incoming fatter green females, or the seasonal abundance of turtle eggs to harvest.

“Customary hunting and fishing have been taught to us by our Elders. Some ways have changed over the years, but we still follow the same principles.”

Yawuru Cultural Management Plan



Adrian Lane tagging a Green turtle at Yowjab (Montgomery Reef). Photo: DBCA.



Knowledge

Kimberley Traditional Custodians have deep cultural responsibilities, relationships to, rights and custodianship of Green turtles. They share millennia of accumulated knowledge about their habitat, behaviour, health and cultural values and their cultural use is interwoven into everyday life. The value of these cultural connections, traditions, practices and knowledge systems to the long-term health and sustainability of these species cannot be overstated.

"We have a duty of care and obligations and one of the major reasons we come together is to protect cultural customs, traditions, livelihoods, the whole works."

Kevin George, Senior Cultural Ranger, Bardi Jawi Rangers²

Kin

Indigenous harvest is important for maintaining family relations (kinship) and social structure and has important ceremonial and community purposes and for some communities is also important in supplying food.

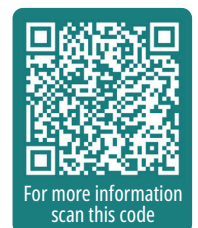
Green turtles live and move between different Sea Country along the length of the Kimberley coastline, and all Kimberley saltwater groups share a responsibility to manage populations for the future.

"Working collaboratively, we are all accountable and we, the Traditional Owners who have lived on and interacted with turtles for many generations, want to be a part of the higher-level conversation and policy at the Commonwealth level in regard to planning and managing these species."

Dean Mathews, Yawuru²



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Results of Poor Management

Green turtle management is currently complex due to a variety of policy and planning frameworks. Green turtles are likely to move across different state and commonwealth waters, management zones with different levels of protections and management arrangements, and different Indigenous groups' Sea Country. The cumulative threats and pressures give urgency to coordinated science and management initiatives.

Remoteness, extreme weather and lack of resourcing have all restricted efforts to conduct systematic, regular monitoring of key rookeries. This contributes to knowledge gaps about distribution and abundance and limits managers' ability to monitor trends and introduce appropriate management strategies.

The Kimberley Indigenous Saltwater Science Project ([KISSP](#)) identifies a number of factors that impede the capacity of Kimberley Traditional Custodians to protect Green turtles including:

- lack of resourcing
- lack of recognition of jurisdiction
- lack of infrastructure leading to lack of people living on Country or access to Country
- culturally inappropriate government policies
- lost knowledge of cultural practices due to lack of cultural programs in mainstream education.

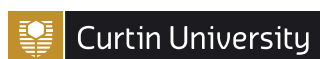


Green turtle release. Photo: DBCA.



Resilient
Landscapes

National Environmental Science Program



Kimberley Saltwater People's Vision

It is critical that Kimberley Saltwater people are at the forefront of Green turtle management, and that conservation efforts prioritise their unique cultural value and use.

Our Vision

Healthy and sustainable habitat and populations of sea turtle & dugong in Kimberley waters that support Indigenous livelihoods, culture and customary practices.

Our Statement of Intent

Kimberley-scale science and Indigenous knowledge for the collaborative management of sea turtle and dugong, providing local, regional, national and international benefits for the species and for Indigenous communities over the next 50 years.

Key outcomes sought:

1. Management strategies and outcomes aligning with Indigenous aspirations
2. Ranger and Traditional Custodian groups coordinating their turtle science and management with state and federal agencies
3. Research and monitoring projects developed collaboratively with Traditional Custodians
4. An active and effective knowledge sharing network between stakeholders
5. Prioritised, costed management actions supported by government agencies
6. Adequate on-ground funds to implement strategic turtle and dugong management activities in the Kimberley
7. Well informed decisions being made regionally across the Kimberley about turtle management
8. Kimberley saltwater communities supported to develop sustainable harvest frameworks
9. Ongoing opportunity for Kimberley Traditional Custodians and other knowledge holders to contribute to government decision making
10. Resourced ranger development and training allowing Indigenous ranger groups to undertake management as prioritised by their communities
11. Capacity, education and community benefits throughout the project.

¹ This case study is adapted from the [Kimberley Indigenous Turtle & Dugong Initiative 2022–2032](#).

² Report from annual [Indigenous Saltwater Advisory Group 2020](#).

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