



## Memorandum of Understanding on the Conservation and Management of Marine Turtles and their Habitats of the Indian Ocean and South-East Asia

### NATIONAL REPORTING QUESTIONNAIRE

#### GENERAL INFORMATION

<p>Signatory State: Australia</p> <p>Which agency or institution has been primarily responsible for the preparation of this report?</p> <p>Australian Government Department of Climate Change, Energy, the Environment and Water (DCCEEW)</p>
<p>List any other agencies, institutions, or NGOs that have provided input:</p> <ul style="list-style-type: none"><li>• Western Australia Government Department of Biodiversity, Conservation and Attractions</li><li>• Queensland Government Department of Environment and Science</li><li>• Australian Government Great Barrier Reef Marine Park Authority</li><li>• Australian Government DCCEEW Parks Australia</li><li>• Australian Government Australian Fisheries Management Authority</li></ul>
<p>Memorandum in effect in Signatory State since (dd/mm/yyyy):</p> <p>01/09/2001</p>
<p>This report was last modified: (dd/mm/yyyy):</p> <p>11/03/2024</p>
<p>Designated Focal Point (and full contact details):</p> <p>Narelle Montgomery Migratory Species Section, International Environment Branch International Environment, Reef and Ocean Division GPO Box 3090 Canberra ACT 2601 Australia Tel: +61 2 5156 4660 E-mail: Narelle.Montgomery@dcceew.gov.au</p>
<p>Other relevant contacts:</p>

## MARINE TURTLE SPECIES AND HABITATS

### INTRODUCTION

#### 0.1 Overview of marine turtles and their habitats in the IOSEA MOU Signatory States within the IOSEA region.

Provide sources of information supporting the responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources and/or attach documents to this report.

- a) Please list marine turtle species and genetic stocks in your country, give a general population estimate and trend for your country and indicate where they occur.

Geographic area	Type of habitat (nesting, feeding, developmental?)	Species, genetic stock	Number of egg clutches per year	Population trend (increase, decrease, stable, unknown)
Islands of the Capricornia- Bunker Group, Bushy Islet, Wreck Rock to Burnett Head	Nesting	Green turtle – Southern Great Barrier Reef (GBR)	5.06 clutches/female/season	Increase
Coastal waters from Darwin to southern New South Wales to SW Pacific	Foraging	Green turtle – Southern Great Barrier Reef (GBR)	N/A	Increase
Waters off south Queensland- New South Wales; extending into Tasman Sea, Coral Sea to as far east as Fiji	Developmental	Green turtle – Southern	N/A	unknown

		Great Barrier Reef (GBR)		
Sand cays and islets of the Coral Sea Marine Park	Nesting	Green turtle – Coral Sea	Unknown	Unknown
Coastal waters off Queensland	Foraging	Green turtle – Coral Sea	N/A	Unknown
Raine Island, Moulter Cay, Bramble Cay, Murray Island, Dauar Island, Sandbanks no. 7 and no. 8, etc	Nesting	Green turtle – northern GBR	6.2 clutches/female/season	Decrease
Coastal waters off southern New Guinea, Northern Territory, Queensland	Foraging	Green turtle – northern GBR	N/A	Decrease
Bountiful Islands, Rocky Island, Pisonia Island, Cape Shield to Cape Arnhem, Groote Eylandt Archipelago, Sir Edward Pellew Islands	Nesting	Green turtle – Gulf of Carpentaria	Unknown	Unknown
Coastal waters of the west and southern regions of the Gulf of Carpentaria	Foraging	Green turtle – Gulf of Carpentaria	N/A	Unknown
Black Point to Smith Point, Croker Island and McCluer Island Group	Nesting	Green turtle – Cobourg Peninsula		Unknown
Coastal waters off Darwin to the western region of the Gulf of Carpentaria	Foraging	Green turtle – Cobourg Peninsula	N/A	Unknown
Adele Island, Maret Island, Cassini Island, Lacepede Islands, Barrow Island, Montebello Islands (all with sandy beaches), Serrurier Island, Dampier Archipelago, Thevenard Island, northwest Cape, Ningaloo coast	Nesting	Green turtle – North West Shelf		Stable
Coastal waters from the Gulf of Carpentaria to Perth; home range extends to Cocos (Keeling) Islands	Foraging	Green turtle – North West Shelf	N/A	Stable

Ashmore Reef and Cartier Reef	Nesting	Green turtle – Ashmore Reef		Unknown
Coastal waters surrounding Ashmore Reef to Cartier Reef	Foraging	Green turtle – Ashmore Reef	N/A	Unknown
Scott Reef (Sandy Islet) and Browse Island	Nesting	Green turtle – Scott-Browse		Unknown
Coastal waters off western Northern Territory to Shark Bay; home range extends to Cocos (Keeling) Island	Foraging	Green turtle – Scott-Browse	N/A	Unknown
Cocos (Keeling) Islands and within the Pulu Keeling National Park	Nesting	Green turtle – Cocos Keeling		Unknown
Coastal waters surrounding the Cocos (Keeling) Islands	Foraging	Green turtle – Cocos Keeling	N/A	Decrease
Coastal beaches from Bustard Head in central Queensland to northern New South Wales, islands of southern GBR: Swain Reefs Capricornia- Bunker Group,	Nesting	Loggerhead turtle – South-west Pacific	3.4 clutches/female/season	Decrease
Coastal waters off the Gulf of Carpentaria to southern New South Wales and Papua New Guinea and New Caledonia	Foraging	Loggerhead turtle – South-west Pacific	N/A	Decrease
Coastal waters off south Qld to southern New South Wales and on to New Zealand; migration route extends to the west coast of South America	Developmental	Loggerhead turtle – South-west Pacific	N/A	Decrease
Dirk Hartog Island, Muiron Islands, Gnaraloo Bay, Ningaloo coast	Nesting	Loggerhead turtle – Western Australia		Stable
Coastal waters off Western Australia to the western region of the Gulf of Carpentaria	Foraging	Loggerhead turtle – Western Australia	N/A	Stable

Townsville to Bundaberg: Peak Island, Avoid Island, Wild Duck Island, Curtis Island, Mon Repos, Broad Sound Islands National Park	Nesting	Flatback turtle – Eastern Queensland	2.84 clutches/female/season	Increase
Coastal waters off Eastern Queensland	Foraging	Flatback turtle – Eastern Queensland	N/A	Unknown
Continental shelf waters off eastern Queensland to New South Wales;	Developmental	Flatback turtle – Eastern Queensland	N/A	Unknown
Coastal waters off northern Queensland and Northern Territory	Foraging	Flatback turtle – Arafura Sea	N/A	Unknown
Cape Domett, Lacrosse Island	Nesting	Flatback turtle – Cape Domett		Unknown
Coastal waters of the northern Northern Territory and eastern Western Australia	Foraging	Flatback turtle – Cape Domett	N/A	Unknown
Eighty Mile Beach, Eco Beach, Lacepede Islands	Nesting	Flatback turtle – South-west Kimberley		Unknown
No distribution data available	Foraging	Flatback turtle – South-west Kimberley	N/A	Unknown
Montebello Islands, Mundabullangana Beach, Barrow Island, Cemetery Beach, Dampier Archipelago (including Delambre Island and Huay Island), coastal islands from Cape Preston to Locker Island	Nesting	Flatback turtle – Pilbara		Unknown (Stable for Barrow Island)
Coastal waters off Exmouth to Darwin	Foraging	Flatback turtle – Pilbara	N/A	Unknown

Maret Islands, Montelivet Islands, Cassini Island, Coronation Islands (includes Lamarck Island), Napier-Broome Bay Islands (West Governor Island, Sir Graham Moore Island – near Kalumbaru), Champagne, Darcy and Augustus Islands (Camden Sound)	Nesting	Flatback turtle – NW Kimberley genetic stock Kimberley, Western Australia		Unknown
No distribution data available	Foraging	Flatback turtle – Unknown genetic stock Kimberley, Western Australia	N/A	Unknown
Bird Island, Boydong Island, Fife Island, Milman Island, Saunders Island, Aukane Island, Bet Islet (Bara), Bouke (Bak), Dadalai Islet, Kabbikane, Mimi, Saddle Island (Ulu), Sassie Island, Zuizin Island, Adolphis Island, Albany Island, Hawkesbury Island (Warral), Lacey Island, Laoyak Island, Little Adolphis Island (Smol Muri), Woody Wallace Island, Poll Islet (Guiya), Dugong Islet (Atub), Cap Islet (Mukar), Two Brothers Island (Gebar), Mt Adolphus Island (Muri)	Nesting	Hawksbill turtle – northern Queensland	~3 clutches/female/season	Decrease
Coastal waters off eastern and northern Queensland, as well as the Gulf of Carpentaria	Foraging	Hawksbill turtle – northern Queensland	N/A	Decrease
Coastal waters off eastern Queensland	Foraging	Hawksbill turtle – Papua New Guinea, Solomon Islands,	N/A	Decrease

		Vanuatu and foragers of unknown origin		
English Company Islands (including Truant Island and Bromby Islands), Groote Eylandt Archipelago, Wessel Islands, New Year Island	Nesting	Hawksbill turtle – north-east Arnhem Land		Unknown
Coastal waters from Waruwi to Groote Eylandt	Foraging	Hawksbill turtle – north-east Arnhem Land	N/A	Unknown
Dampier Archipelago (including Rosemary Island and Delambre Island), Montebello Islands (including Ah Chong Island, South East Island and Trimouille Island), Lowendal Islands (including Varanus Island, Beacon Island and Bridled Island), Sholl Island	Nesting	Hawksbill turtle – Western Australia		Unknown
Coastal waters between Exmouth and Port Hedland	Foraging	Hawksbill turtle – Western Australia	N/A	Unknown
Coastal beaches from Jardine River to Chapman River	Nesting	Olive Ridley turtle – Western Cape York	Unknown	Decrease
Western Cape York Peninsula beaches of Gulf of Carpentaria	Foraging	Olive Ridley turtle – Western Cape York and turtles of unknown stock origin	N/A	Decrease

Tiwi Islands, McCluer Island group, Wessel Group, English Company Island, Crocodile Island Group, Cobourg Peninsula	Nesting	Olive Ridley turtle – Northern Territory		Unknown
Coastal waters off Northern Territory and northeastern Western Australia	Foraging	Olive Ridley turtle – Northern Territory	N/A	Unknown
Prior Point, Vulcan Island, Darcy Island, Llangi, Cape Leveque	Nesting	Olive Ridley turtle – Unknown genetic stock Kimberley, Western Australia		Unknown
Unknown distribution	Foraging	Olive Ridley turtle – Unknown genetic stock Kimberley, Western Australia	N/A	Unknown
northern Western Australia and northern and western Northern Territory	Foraging	Olive Ridley turtle – Indonesia	N/A	Unknown
Cobourg Peninsula to Cape Arnhem (including Danger Point) and adjacent islands (including Wessel Islands and Elcho Island) No eastern Qld nesting since 1996.	Nesting	Leatherback turtle – Australia		Decrease



Coastal waters off western, southern and eastern Australia and Gulf of Carpentaria; unknown exact distribution	Foraging	Leatherback turtle – Australia	Unknown	Decrease
--	----------	--------------------------------	---------	----------

**b) Do government agencies and or scientific institutions submit data on the occurrence and population numbers of marine turtles to an international database?**

☐ YES ☐ NO

Name of database:

Species occurrence data can be submitted to the Turtle Nesting Distribution Abundance and Migration (TurtleNet) database, which is managed by Queensland Government Department of Environment and Science.

<https://apps.information.qld.gov.au/TurtleDistribution/>

Another suitable database for the Pacific island countries and territories is the Turtle Research and Monitoring Database System (SPREP).

<https://www.sprep.org/thetreds>

The SWOT Global Sea Turtle Database also collects global data on nesting occurrence and telemetry tracks.

<https://www.seaturtlestatus.org/online-map-data>

It is up to each stakeholder to decide whether to upload their data to these databases to make it available to the public. Result dissemination of monitoring surveys might also be mandated by funding bodies.

**c) Does your country have index nesting beaches in the IOSEA region?**

☐ YES ☐ NO

**d) Does your country have an IOSEA Network site?**

☐ NO ☐ YES

✓ If you are using the MS Word version of the NRQ, please copy the Site Specific Section for each site.

---

## 0.2 Site-specific information

Please fill out the following section for index beaches and/or IOSEA Site Network Sites in your country. If there are no such beaches or sites in your country, please leave this section blank. **An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term.** An index beach may be located in a remote area or close to human settlements with influence of anthropogenic activities.

### SITE 1 Heron Island (Green turtle – Southern Great Barrier Reef stock; Loggerhead turtle – South-west Pacific stock)

#### a) Provide the name, location and length of the site

Name of the site: Heron Island State/province: Queensland Latitude and longitude (middle of the beach or two from either end of the beach): 23.433°S, 151.917°E Length: 0.8 km
---

#### b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?

☐ YES ☐ NO

#### c) Is this an [IOSEA Network Site](#)?

☐ NO ☐ YES

#### d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?

☐ YES ☐ NO

Details: National Park (Capricornia Cays National Park / Capricorn and Bunker Group) within Great Barrier Reef World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1964. Monitoring is carried out each nesting season (nightly tagging census) by Queensland Parks and Wildlife Service Threatened Species Operations.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.**

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES (nesting in the islands group)	b	Decreasing (few 10s females nesting /season)	1964	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	e	Increasing (around 700 nesting females per year)	1964	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				

Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 1**

✓ 10-15 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>1</sup>:  
 Heron Island is located within Capricornia Cays National Park, which comprises 241 ha of coral cays.

**h) Please fill out the following table for the in-water habitat of site 1. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO	Unknown	Decreasing		Annual tagging-recapture studies were conducted during 19875-1999 & 2022
Green ( <i>Chelonia mydas</i> )	YES	NO	Unknown	Increasing		Annual tagging-recapture studies were conducted

<sup>1</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

						during 1975-1999 & 2022
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO	Unknown	Unknown		Annual tagging-recapture studies were conducted during 19875-1999
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

Please provide any references and links<sup>2</sup>:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV\\_Report\\_Port\\_Curtis\\_and\\_Port\\_Alma\\_ERMP\\_Tier\\_1\\_project\\_CA120021\\_Monitoring\\_of\\_Coastal\\_Sea\\_Turtles\\_Gap\\_Analysis\\_2\\_Green\\_turtles\\_Chelonia\\_myda.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV_Report_Port_Curtis_and_Port_Alma_ERMP_Tier_1_project_CA120021_Monitoring_of_Coastal_Sea_Turtles_Gap_Analysis_2_Green_turtles_Chelonia_myda.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

<sup>2</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes				X	
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	
Artificial lighting (on land or near shore)				X	

Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	
Other (type in): Vessel disturbance			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

“ Training/ capacity building for people from coastal communities

Please provide details:

Training/ capacity building for people from coastal communities: Expand existing Citizen Science training program to encompass broader community engagement.

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

- l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV\\_Report\\_Port\\_Curtis\\_and\\_Port\\_Alma\\_ERMP\\_Tier\\_1\\_project\\_CA120021\\_Monitoring\\_of\\_Coastal\\_Sea\\_Turtles\\_Gap\\_Analysis\\_2\\_Green\\_turtles\\_Chelonia\\_myda.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV_Report_Port_Curtis_and_Port_Alma_ERMP_Tier_1_project_CA120021_Monitoring_of_Coastal_Sea_Turtles_Gap_Analysis_2_Green_turtles_Chelonia_myda.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>



**SITE 2 Wreck Island (Green turtle – Southern Great Barrier Reef stock; Loggerhead turtle – south-west Pacific stock)**

**a) Provide the name, location and length of the site**

Name of the site: Wreck Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 23.20°S, 151.57°E  
Length: 0.98 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES " "

**c) Is this an [IOSEA Network Site](#)?**

∴ NO "

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES " "

Details: National Park (Capricornia Cays National Park / Capricorn Bunker Group); within Great Barrier Reef World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1977. Loggerhead tagging census & green turtle track count census for each nesting season.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 -**

500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES (nesting in the region)	b	Decreasing	1977	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	f	Increasing	1977	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 2**

✓ 2-5 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>3</sup>:  
 Wreck Island Reef is approximately 3.5 x 1.5 km in size. The reef is located within Capricornia Cays National Park, which comprises 241 ha of coral cays.

<sup>3</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

**h) Please fill out the following table for the in-water habitat of site 2. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Decreasing		
Green ( <i>Chelonia mydas</i> )	YES	NO		Increasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

Please provide any references and links<sup>4</sup>:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

<sup>4</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV\\_Report\\_Port\\_Curtis\\_and\\_Port\\_Alma\\_ERMP\\_Tier\\_1\\_project\\_CA120021\\_Monitoring\\_of\\_Coastal\\_Sea\\_Turtles\\_Gap\\_Analysis\\_2\\_Green\\_turtles\\_Chelonia\\_myda.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV_Report_Port_Curtis_and_Port_Alma_ERMP_Tier_1_project_CA120021_Monitoring_of_Coastal_Sea_Turtles_Gap_Analysis_2_Green_turtles_Chelonia_myda.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes		X			
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent				X	

Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	
Other (type in): Vessel disturbance			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

“ Training/ capacity building for people from coastal communities

Please provide details:

Training/ capacity building for people from coastal communities

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

- l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV\\_Report\\_Port\\_Curtis\\_and\\_Port\\_Alma\\_ERMP\\_Tier\\_1\\_project\\_CA120021\\_Monitoring\\_of\\_Coastal\\_Sea\\_Turtles\\_Gap\\_Analysis\\_2\\_Green\\_turtles\\_Chelonia\\_myda.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV_Report_Port_Curtis_and_Port_Alma_ERMP_Tier_1_project_CA120021_Monitoring_of_Coastal_Sea_Turtles_Gap_Analysis_2_Green_turtles_Chelonia_myda.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 3 North West Island (Green turtle – Southern Great Barrier Reef stock; Loggerhead turtle – South-west Pacific stock)**

**a) Provide the name, location and length of the site**

Name of the site: North West Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 23.300°S, 151.700°E  
Length: 1.8 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES " "

**c) Is this an [IOSEA Network Site](#)?**

∴ NO "

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES " "

Details: National Park (Capricornia Cays National Park); within Great Barrier Reef World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: intermittent since 1977. Track count census for each nesting season.

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	a	Decreasing	1977	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	f	Increasing	1977	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

- g) Please estimate the approximate area of adjacent in-water habitat for SITE 3

✓ 10-15 km<sup>2</sup>



Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>5</sup>:  
 North West island is located within Capricornia Cays National Park, which comprises 241 ha of coral cays.

**h) Please fill out the following table for the in-water habitat of site 3. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Decreasing		
Green ( <i>Chelonia mydas</i> )	YES	NO		Increasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

<sup>5</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>6</sup>:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation’s Ecosystem Research and Monitoring Program.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV\\_Report\\_Port\\_Curtis\\_and\\_Port\\_Alma\\_ERMP\\_Tier\\_1\\_project\\_CA120021\\_Monitoring\\_of\\_Coastal\\_Sea\\_Turtles\\_Gap\\_Analysis\\_2\\_Green\\_turtles\\_Chelonia\\_myda.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV_Report_Port_Curtis_and_Port_Alma_ERMP_Tier_1_project_CA120021_Monitoring_of_Coastal_Sea_Turtles_Gap_Analysis_2_Green_turtles_Chelonia_myda.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ‘ X’				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			

<sup>6</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes		X			
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	
Other (type in): Vessel disturbance			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

“ Training/ capacity building for people from coastal communities

Please provide details:

Training/ capacity building for people from coastal communities

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

<https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3->

[ENV\\_Report\\_Port\\_Curtis\\_and\\_Port\\_Alma\\_ERMP\\_Tier\\_1\\_project\\_CA120021\\_Monitoring\\_of\\_Coastal\\_Sea\\_Turtles\\_Gap\\_Analysis\\_2\\_Green\\_turtles\\_Chelonia\\_myda.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3-ENV_Report_Port_Curtis_and_Port_Alma_ERMP_Tier_1_project_CA120021_Monitoring_of_Coastal_Sea_Turtles_Gap_Analysis_2_Green_turtles_Chelonia_myda.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 4 Lady Musgrave Island (Green turtle – Southern Great Barrier Reef stock; Loggerhead turtle – South-West Pacific stock)**

**a) Provide the name, location and length of the site**

Name of the site: Lady Musgrave Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 23.900°S, 152.383°E  
Length: 0.77 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES " "

**c) Is this an [IOSEA Network Site](#)?**

∴ NO "

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES " "

Details: National Park (Capricornia Cays National Park); within Great Barrier Reef World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1972. Loggerhead turtle: tagging census; green turtles: track count census for each nesting season.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than**

100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	b	Decreasing	1977	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	e	Increasing	1977	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 4**

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>7</sup>:  
 Lady Musgrave is located within Capricornia Cays National Park, which comprises 241 ha of coral cays.

**h) Please fill out the following table for the in-water habitat of site 4. Please include information on population number and trend, if available.**

<sup>7</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Decreasing		
Green ( <i>Chelonia mydas</i> )	YES	NO		Increasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

Please provide any references and links<sup>8</sup>:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

<https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3->

[ENV Report Port Curtis and Port Alma ERMP Tier 1 project CA120021 Monitoring of Coastal Sea Turtles Gap Analysis 2 Green turtles Chelonia myda.pdf](#)

<sup>8</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes		X			
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent		X			
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	



Artificial lighting (on land or near shore)				X	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	
Other (type in): Vessel disturbance			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~
- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received.

k) If necessary, use the text box to give further details or clarification about any of the information provided.

l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Sources:

Limpus CJ, Parmenter CJ and Chaloupka M (2013) Monitoring of Coastal Sea Turtles: Gap Analysis 2. Green turtles, *Chelonia mydas*, in the Port Curtis and Port Alma Region. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program.

<https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-995512-v3->

[ENV Report Port Curtis and Port Alma ERMP Tier 1 project CA120021 Monitoring of Coastal Sea Turtles Gap Analysis 2 Green turtles Chelonia myda.pdf](#)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 5 Raine Island National Park (Raine Island and Moulter Cay; Green turtle – Northern Great Barrier Reef stock)**

**a) Provide the name, location and length of the site**

Name of the site: Raine Island National Park (Raine Island and Moulter Cay)  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): Raine Island 11.59°S, 144.04°E; Moulter Cay 11.41°S, 144.02°E  
Length: Raine Island 0.8 km; Moulter Cay 0.5 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES " "

**c) Is this an [IOSEA Network Site](#)?**

∴ NO "

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES " "

Details: National Park (Scientific); within Great Barrier Reef World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: Raine Island 1974, Moulter Cay 2006. Track count monitoring is carried out during and out of nesting season

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 -**

500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	YES		Decreasing	1974 (Raine Island) and 2006 (Moulter Cay)	During and out of nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 5**

- 1-2 km<sup>2</sup>
- 2-5 km<sup>2</sup>
- 5-10 km<sup>2</sup>
- 10-15 km<sup>2</sup>
- 15-100 km<sup>2</sup>
- more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>9</sup>: Raine Island and Moulter Cay are located within the Raine Island National Park (Scientific), which comprises 36 ha.

**h) Please fill out the following table for the in-water habitat of site 5. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO					
Green ( <i>Chelonia mydas</i> )	YES	NO	Unknown	Decreasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO					
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

<sup>9</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>10</sup>:

Limpus, C.J., Miller, J.D., Parmenter, C.J. and Limpus, D.J., 2003. The green turtle, *Chelonia mydas*, population of Raine Island and the Northern Great Barrier Reef: 1843-2001. *Memoirs-Queensland Museum*, 49(1), pp.349-440.

<https://www.museum.qld.gov.au/collections-and-research/memoirs/nature-49/mqm-n49-1-20-limpus-et-al>

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			

<sup>10</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Boat strikes		X			
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent		X			
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					X
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change					X

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

“ Technical expertise to enhance conservation or management at the site

Please provide details:

Technical expertise to enhance conservation or management at the site

k) If necessary, use the text box to give further details or clarification about any of the information provided.

l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Sources:

Limpus, C.J., Miller, J.D., Parmenter, C.J. and Limpus, D.J., 2003. The green turtle, *Chelonia mydas*, population of Raine Island and the Northern Great Barrier Reef: 1843-2001. *Memoirs-Queensland Museum*, 49(1), pp.349-440.  
<https://www.museum.qld.gov.au/collections-and-research/memoirs/nature-49/mqm-n49-1-20-limpus-et-al>

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.  
[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>



**SITE 6 Dowar Islet (also known as Dauar Island; Green turtle – Northern Great Barrier Reef stock)**

**a) Provide the name, location and length of the site**

Name of the site: Dowar Islet (also known as Dauar Island)  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 9.943°S, 144.026°E  
Length: 1.42 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ NO

Details:

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2006. Yearly nesting and hatchling surveys.

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	YES		Decreasing	2006	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

- g) Please estimate the approximate area of adjacent in-water habitat for SITE 6

✓ 1-2 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>11</sup>: Less than 2 km<sup>2</sup> approximately. Size of surrounding reef determined as measured on Google maps

**h) Please fill out the following table for the in-water habitat of site 6. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO	NO				
Green ( <i>Chelonia mydas</i> )	YES	NO	Unknown	Decreasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	NO	NO				

<sup>11</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>12</sup>:

Australian Government and TSRA (2015). Torres Strait Dugong and Turtle Management Project. Marine Turtle Monitoring Project Report 2014-15. May 2015.

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf)

Torres Strait Regional Authority (2017) Torres Strait Dugong and Turtle Management Project: Marine Turtle Monitoring Project Report 2015-16. Published by the Torres Strait Regional Authority Land and Sea Management Unit, Thursday Island, Queensland. (61pp.).

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)			X		
Direct harvest of animals in coastal waters at or near the site			X		

<sup>12</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					X
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea		X			
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change					X
Other (type in): Vessel disturbance			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

~~Training/ capacity building for researchers and field workers~~

- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Training/capacity building for community based activities
- “ Training/capacity building for onboard observer programmes
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Australian Government and TSRA (2015). Torres Strait Dugong and Turtle Management Project. Marine Turtle Monitoring Project Report 2014-15. May 2015.

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf)

TSRA Annual Report 2016-2017

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0003/17823/Annual-Report-2016-2017.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0003/17823/Annual-Report-2016-2017.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

---

**SITE 7 Ningaloo Coast (Green turtle – North West Shelf stock; Hawksbill turtle – Western Australia stock; Loggerhead turtle – Western Australia stock)**

**a) Provide the name, location and length of the site**

Name of the site: Ningaloo Coast

State/province: Western Australia

Latitude and longitude (middle of the beach or two from either end of the beach): 22.39°S, 113.29°E

Length: 260 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Marine Park and World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2000s. All-year monitoring of nesting and foraging grounds.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.**

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	d	Stable	2000s	All-year round
Green ( <i>Chelonia mydas</i> )	YES	e	Stable	2000s	All-year round
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	c	Stable	2000s	All-year round
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 7**



✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>13</sup>:  
The Ningaloo Marine Park covers a total area of 5070 km<sup>2</sup>

[https://parksaustralia.gov.au/marine/parks/North-west/ningaloo/#:~:text=Ningaloo%20Marine%20Park%20\(Commonwealth%20waters\)%20covers%202%2C%20435%20square,garde ns%20and%20rich%20fish%20communities.](https://parksaustralia.gov.au/marine/parks/North-west/ningaloo/#:~:text=Ningaloo%20Marine%20Park%20(Commonwealth%20waters)%20covers%202%2C%20435%20square,garde ns%20and%20rich%20fish%20communities.)

<https://ningaloo-atlas.org.au/node/215>

**h) Please fill out the following table for the in-water habitat of site 7. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		Seasonal morning track counts
Green ( <i>Chelonia mydas</i> )	YES	NO		Stable		Seasonal morning track counts
Leatherback ( <i>Dermochelys coriacea</i> )	NO					

<sup>13</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

Please provide any references and links<sup>14</sup>:

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Ningaloo Turtle Program

<https://ningalooturtles.org.au/>

[http://ningalooturtles.org.au/wp-content/uploads/2023/08/NTP-Annual-Report-2022\\_23-FINAL.pdf](http://ningalooturtles.org.au/wp-content/uploads/2023/08/NTP-Annual-Report-2022_23-FINAL.pdf)

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)

<sup>14</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site			X		
Egg collection (i.e. direct harvest by humans)			X (at the stock level)		
Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			X		
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea					X extreme ghost crab predation, also gulls

Predation by domestic / feral animals (cats, dogs)			X		x
Other (type in): Climate change				X	
Other (type in): noise pollution				X	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Training/capacity building for community-based activities
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

<ul style="list-style-type: none"> <li>“ Training/ capacity building for authorities and/or managers</li> <li>“ Training/ capacity building for people from coastal communities</li> <li>“ Training/capacity building for community-based activities</li> <li>“ Training/capacity building for project development, fundraising, execution, evaluation</li> <li>“ Scientific equipment and/or technical support</li> <li>“ Technical expertise to enhance conservation or management at the site</li> </ul>
---

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

--

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Ningaloo Turtle Program

<https://ningalooturtles.org.au/>

Avenant C, Fossette S, Whiting S, Hopkins AJM, Hyndes GA. Sea turtle eggs and hatchlings are a seasonally important food source for the generalist feeding golden ghost crab (*Ocypode convexa*). *Estuaries and Coasts* 2023;1-18. <https://doi.org/10.1007/s12237-023-01309-4>

Avenant C, Whiting S, Fossette S, Barnes P, Hyndes GA. Extreme predation of eggs and hatchlings for loggerhead turtles in eastern Indian Ocean. *Biodiversity and Conservation* (2023). <https://doi.org/10.1007/s10531-023-02739-z>.

**SITE 8 Barrow Island (Flatback turtle – Pilbara stock; Green turtle – North West Shelf stock; Hawksbill turtle – Western Australia)**

**a) Provide the name, location and length of the site**

Name of the site: Barrow Island  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 20.48°S, 115.22°E  
Length: 23.4 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Class A Nature Reserve

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2005. Monitoring is carried out every nesting season, however sightings are recorded all-year round. Industry funded program, so annual numbers are estimated

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	YES	f	Unknown	2005	Monitoring has ceased
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	c	Unknown	2005	Monitoring has ceased
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				

Flatback ( <i>Natator depressus</i> )	YES	f	Stable	2005	Every nesting season
---------------------------------------	-----	---	--------	------	----------------------

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 8**

– more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>15</sup>: Barrow Island Marine Park encompasses 4,100 ha of surrounding waters

**h) Please fill out the following table for the in-water habitat of site 8. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		

<sup>15</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.



Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

Please provide any references and links<sup>16</sup>:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.

[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuitem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuitem=false)

Chevron Australia Pty Ltd 2018. Gorgon Gas Development and Jansz Feed Gas Pipeline. Long-term Marine Turtle Management Plan.

<https://australia.chevron.com/-/media/australia/our-businesses/documents/gorgon-emp-long-term-marine-turtle-management-plan.PDF>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

	INTENSITY OF THREAT Mark with an ' X'				

<sup>16</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

<b>NATURE OF THREAT</b>	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)			X (at the stock level)		
Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	
Artificial lighting (on land or near shore)					X
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					X
Vehicles			X		
Sand mining / removal			X		

Natural threats, disease, predation of nests/nesting females or natural predation at sea					X
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	
Other (type in): noise pollution				X	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

Please provide details:

None; monitored by industry

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

- High level of turtle nesting habitat degradation due to erosion from coastal development on east coast flatback turtle beaches.
- Disturbance from artificial lights on west coast green turtle beaches.

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.

[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuItem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuItem=false)

Chevron Australia Pty Ltd 2018. Gorgon Gas Development and Jansz Feed Gas Pipeline. Long-term Marine Turtle Management Plan. <https://australia.chevron.com/-/media/australia/our-businesses/documents/gorgon-emp-long-term-marine-turtle-management-plan.PDF>

Commonwealth of Australia 2017. Recovery Plan for Marine Turtles in Australia. <https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

---

**SITE 9 Muiron Islands (Green turtle – North West Shelf stock; Loggerhead turtle – Western Australia; Flatback turtle – Pilbara stock; Hawksbill – Western Australia)**

**a) Provide the name, location and length of the site**

Name of the site: Muiron Islands  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 21.66°S, 114.35°E  
Length: 13.5 km (28 km of coastline in total)

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Marine management area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2013; track count census carried out most nesting seasons (irregular aerial survey monitoring)

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 -**

500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	yes	d	Stable	2013	irregular – aerial survey
Green ( <i>Chelonia mydas</i> )	yes	e	Stable	2013	irregular – aerial survey
Leatherback ( <i>Dermochelys coriacea</i> )	no				
Hawksbill ( <i>Eretmochelys imbricata</i> )	yes (occasional)	b	Unknown	2013	irregular – aerial survey
Olive Ridley ( <i>Lepidochelys olivacea</i> )	no				
Flatback ( <i>Natator depressus</i> )	yes (occasional)	a	Unknown	2013	irregular – aerial survey

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 9**

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>17</sup>: The marine management area covers 28,600 ha.

**h) Please fill out the following table for the in-water habitat of site 9. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

<sup>17</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>18</sup>:

Rob D, Barnes P, Whiting S, Fossette S, Tucker T and Mongan T (2019) Turtle activity and nesting on the Muiron Islands and Ningaloo Coast: Final Report 2018, Ningaloo Turtle Program. Report prepared for Woodside Energy Limited. Department of Biodiversity, Conservation and Attractions, Exmouth, pp.51.

<https://library.dbca.wa.gov.au/static/FullTextFiles/072472.pdf>

Tucker et al (2020). Inter-nestinf and migrations by marine turtles of the Muiron Islands and Ningaloo Coast Final Report. <http://ningalooturtles.org.au/wp-content/uploads/2022/12/DBCA-Muiron-Report-FINAL-13.pdf>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site			X (indigenous take)	X (international take)	

<sup>18</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.



Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea				X Ghost crab and seagull predation on hatchlings	
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change		X			

j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:

“ Scientific equipment and/or technical support

Please provide details:

“ Scientific equipment and/or technical support

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

Major loggerhead rookery but sparse satellite information, needs investment in GPS tags

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Rob D, Barnes P, Whiting S, Fossette S, Tucker T and Mongan T (2019) Turtle activity and nesting on the Muiron Islands and Ningaloo Coast: Final Report 2018, Ningaloo Turtle Program. Report prepared for Woodside Energy Limited. Department of Biodiversity, Conservation and Attractions, Exmouth, pp.51.

<https://library.dbca.wa.gov.au/static/FullTextFiles/072472.pdf>

Tucker et al (2020). Inter-nesting and migrations by marine turtles of the Muiron Islands and Ningaloo Coast Final Report. <http://ningalooturtles.org.au/wp-content/uploads/2022/12/DBCA-Muiron-Report-FINAL-13.pdf>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Avenant C, Fossette S, Whiting S, Hopkins AJM, Hyndes GA. Sea turtle eggs and hatchlings are a seasonally important food source for the generalist feeding golden ghost crab (*Ocypode convexa*). *Estuaries and Coasts* 2023:1-18. <https://doi.org/10.1007/s12237-023-01309-4>

Avenant C, Whiting S, Fossette S, Barnes P, Hyndes GA. Extreme predation of eggs and hatchlings for loggerhead turtles in eastern Indian Ocean. *Biodiversity and Conservation* (2023). <https://doi.org/10.1007/s10531-023-02739-z>.

---

OFFLINE COPY

**SITE 10 Woongarra Coast (Loggerhead turtle – South-West Pacific stock; Flatback turtle – Eastern Queensland stock; Green turtle – Southern Great Barrier Reef stock)**

**a) Provide the name, location and length of the site**

Name of the site: Woongarra Coast (includes Mon Repos) State/province: Queensland Latitude and longitude (middle of the beach or two from either end of the beach): 24.796°S, 152.441°E Length: 1.5 km
---

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

☐ YES ☐ NO

**c) Is this an [IOSEA Network Site](#)?**

☐ YES ☐ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

☐ YES ☐ NO

Details: Conservation Park for one beach (Mon Repos)
--

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1968, monitoring carried out each nesting season (tagging, clutch counts and track counts)

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	e	Decreasing	1968	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	b	Increasing	1968	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	b	increasing	1968	Each nesting season

- g) Please estimate the approximate area of adjacent in-water habitat for SITE 10

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>19</sup>: This site is not linked to a reef, telemetry suggests more than 100 km<sup>2</sup>

**h) Please fill out the following table for the in-water habitat of site 10. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO				
Green ( <i>Chelonia mydas</i> )	YES	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO					
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	YES	NO				

<sup>19</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>20</sup>:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.  
[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuItem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuItem=false)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Mon Repos Conservation Park – Queensland Government website  
<https://parks.des.qld.gov.au/parks/mon-repos/attractions/mon-repos-turtle-centre>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			

<sup>20</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Incidental capture in coastal fisheries		X (Eastern Queensland)			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)					X
Artificial lighting (on land or near shore)					X
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			X		
Vehicles		X			
Sand mining / removal	X				
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)			X		
Other (type in): Climate change				X	
Other (type in): Noise pollution		X		X	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~



- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.

[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuItem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuItem=false)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Mon Repos Conservation Park – Queensland Government website  
<https://parks.des.qld.gov.au/parks/mon-repos/attractions/mon-repos-turtle-centre>

---

OFFLINE COPY

**SITE 11 Wreck Rock (Loggerhead turtle – South-West Pacific stock; Flatback turtle – Eastern Queensland stock; Green turtle – Southern Great Barrier Reef stock)**

**a) Provide the name, location and length of the site**

Name of the site: Wreck Rock  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 24.314°S, 151.963°E  
Length: 22 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

☐ YES ☐ NO

**c) Is this an [IOSEA Network Site](#)?**

☐ YES ☐ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

☐ YES ☐ NO

Details: National Park for most of the beach

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1978, monitoring carried out each nesting season (tagging and track counts)

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 -**

500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	c	Decreasing	1978	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	b	Increasing	1978	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO	Nil since 1996			
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	b	Unknown	1978	Each nesting season

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 11**

- ~ 1-2 km<sup>2</sup>
- ~ 2-5 km<sup>2</sup>
- ~ 5-10 km<sup>2</sup>
- ~ 10-15 km<sup>2</sup>
- ~ 15-100 km<sup>2</sup>
- ~ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>21</sup>: This site is not linked to a reef, hence we were not sure about how to measure the in-water habitat.

**h) Please fill out the following table for the in-water habitat of site 11. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO				
Green ( <i>Chelonia mydas</i> )	YES	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO					
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	YES	NO				

<sup>21</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>22</sup>:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.

[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuitem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuitem=false)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Wreck Rock Turtle Care – Seeturtle.org

[http://www.seaturtle.org/tracking/index.shtml?project\\_id=1381](http://www.seaturtle.org/tracking/index.shtml?project_id=1381)

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			

<sup>22</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Incidental capture in coastal fisheries		X (Eastern Queensland)			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent		X			
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)			X		
Artificial lighting (on land or near shore)				X	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			X		
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals ( Fox, goanna)					X
Other (type in): Climate change				X	
Other (type in): noise pollution		X			

j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:

~~Training/ capacity building for researchers and field workers~~

- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Training/capacity building for community based activities
- “ Training/capacity building for onboard observer programmes
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.

[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuitem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuitem=false)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.



<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Wreck Rock Turtle Care – Seeturtle.org

[http://www.seaturtle.org/tracking/index.shtml?project\\_id=1381](http://www.seaturtle.org/tracking/index.shtml?project_id=1381)

---

**SITE 12 Dirk Hartog Island (Loggerhead – Western Australian stock; Green turtle – North West Shelf stock)**

**a) Provide the name, location and length of the sites**

Name of the site: Dirk Hartog Island  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 25.79°S, 113.04°E  
Length: 78 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Shark Bay World Heritage Area

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1994. Monitoring is carried out each nesting season (tagging and track counts)

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 -**

500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	f	Stable	1994	Every nesting season
Green ( <i>Chelonia mydas</i> )	YES (in other sites within Shark Bay)		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )					
Hawksbill ( <i>Eretmochelys imbricata</i> )					
Olive Ridley ( <i>Lepidochelys olivacea</i> )					
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 12**

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>23</sup>: Shark Bay World Heritage Area encompasses 23,000 km<sup>2</sup>

**h) Please fill out the following table for the in-water habitat of site 12. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO	SE Indian Ocean Management Unit	Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )		NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )		NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )		NO				
Flatback ( <i>Natator depressus</i> )		NO				

<sup>23</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>24</sup>:

Sharkbay.org

<https://www.sharkbay.org/place/shark-bay-marine-reserve/turtle-monitoring/>

CMS article:

<https://www.cms.int/iosea-turtles/fr/node/14681>

Dirk Hartog Island Rewilding Program

<https://www.sharkbay.org/restoration/dirk-hartog-island-return-1616/>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site			X		
Egg collection (i.e. direct harvest by humans)			X		

<sup>24</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Incidental capture in coastal fisheries				X (at the stock level)	
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent				X (at the stock level)	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			X		
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea					X Ghost crabs and silver gull predation on eggs and hatchlings
Predation by domestic / feral animals (cats, dogs)		X			

Other (type in): Climate change				X	
Other (type in): noise pollution				X (at the stock level)	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- “ Training/ capacity building for researchers and field workers
- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

“ Training/ capacity building for researchers and field workers  
 “ Training/ capacity building for authorities and/or managers  
 “ Training/ capacity building for people from coastal communities  
 “ Scientific equipment and/or technical support  
 “ Technical expertise to enhance conservation or management at the site

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

- Major loggerhead rookery but sparse satellite information, recommend investment in GPS tags
- More studies into egg and hatchling predation and potential mitigation actions

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Source:

Sharkbay.org

<https://www.sharkbay.org/place/shark-bay-marine-reserve/turtle-monitoring/>

CMS article:

<https://www.cms.int/iosea-turtles/fr/node/14681>

Careforhedland.org

<https://careforhedland.org.au/turtle-monitoring/>

Dirk Hartog Island Rewilding Program

<https://www.sharkbay.org/restoration/dirk-hartog-island-return-1616/>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>



**SITE 13 Peak Island (Flatback turtle – Eastern Queensland stock)**

**a) Provide the name, location and length of the site**

Name of the site: Peak Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 22.66°S, 150.96°E  
Length: 0.6 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

☐ YES ☐ NO

**c) Is this an [IOSEA Network Site](#)?**

☐ YES ☐ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

☐ YES ☐ NO

Details: Keppel Bay Islands National Park (Scientific)

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1980. Mid season tagging census. Monitoring is carried out every nesting season.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than**

100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	c	Depleted - increasing	1980	Usually every nesting season

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 13**

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>25</sup>: Keppel Islands National Park has a total area of 703 ha; without including the surrounding waters.

<https://wetlandinfo.des.qld.gov.au/wetlands/facts-maps/national-park-keppel-bay-islands/>

<sup>25</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

h) Please fill out the following table for the in-water habitat of site 13. Please include information on population number and trend, if available.

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Decreasing		
Green ( <i>Chelonia mydas</i> )	YES	NO		Increasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO		Stable		

Please provide any references and links<sup>26</sup>:

Limpus, C. J., Chaloupka, M., Ferguson, J., FitzSimmons, N. N. and Parmenter, C. J. (2020). Flatback Turtle, *Natator depressus*, 2019-2020 Breeding Season, at Curtis, Peak and Avoid Islands. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 58 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env\\_ERMPCA12000291\\_Flatback\\_Turtle\\_Population\\_Size\\_Trends\\_-Final\\_Report.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env_ERMPCA12000291_Flatback_Turtle_Population_Size_Trends_-Final_Report.pdf)

<sup>26</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Colin J. Limpus, Nancy N. FitzSimmons, Ian Anderson, Wayne Bennet, Leisa Baldwin, Leisa Fien, Fiona Hoffmann, Erwin Hoffmann, Duncan J. Limpus, and Trevor Turner (2021). Monitoring of eastern Australian Flatback turtle, *Natator depressus*, breeding populations in the Gladstone region: 2020-2021 breeding season. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 64 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV\\_ERMP\\_CA120000291-Flatback\\_Turtle\\_Natator\\_depressus\\_202002021\\_Breeding\\_Populations\\_in\\_the\\_Gladstone\\_Region\\_2020-2021.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV_ERMP_CA120000291-Flatback_Turtle_Natator_depressus_202002021_Breeding_Populations_in_the_Gladstone_Region_2020-2021.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Queensland Government website:

<https://parks.des.qld.gov.au/parks/keppel-bay-islands/about>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			

Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)					X
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)			X		
Artificial lighting (on land or near shore)					X
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change					X
Other (type in): Diseases and pathogens				X	
Other (type in): noise pollution		X			

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~
- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus, C. J., Chaloupka, M., Ferguson, J., FitzSimmons, N. N. and Parmenter, C. J. (2020). Flatback Turtle, *Natator depressus*, 2019-2020 Breeding Season, at Curtis, Peak and Avoid Islands. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 58 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env\\_ERMPCA12000291\\_Flatback\\_Turtle\\_Population\\_Size\\_Trends\\_-Final\\_Report.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env_ERMPCA12000291_Flatback_Turtle_Population_Size_Trends_-Final_Report.pdf)

Colin J. Limpus, Nancy N. FitzSimmons, Ian Anderson, Wayne Bennet, Leisa Baldwin, Leisa Fien, Fiona Hoffmann, Erwin Hoffmann, Duncan J. Limpus, and Trevor Turner (2021). Monitoring of eastern Australian Flatback turtle, *Natator depressus*, breeding populations in the Gladstone region: 2020-2021 breeding season. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 64 pp.  
[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV\\_ERMP\\_CA120000291-\\_Flatback\\_Turtle\\_Natator\\_depressus\\_202002021\\_Breeding\\_Populations\\_in\\_the\\_Gladstone\\_Region\\_2020-2021.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV_ERMP_CA120000291-_Flatback_Turtle_Natator_depressus_202002021_Breeding_Populations_in_the_Gladstone_Region_2020-2021.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.  
[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Queensland Government website:  
<https://parks.des.qld.gov.au/parks/keppel-bay-islands/about>

**SITE 14 Wild Duck Island (Flatback turtle – Eastern Queensland stock)**

**a) Provide the name, location and length of the site**

Name of the site: Wild Duck Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 22.66°S, 150.96°E  
Length: 3.8 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

☐ YES ☐ NO

**c) Is this an [IOSEA Network Site](#)?**

☐ YES ☐ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

☐ YES ☐ NO

Details: Within Broad Sound Islands National Park

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1981

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than**



100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	d	Increasing	1981-2006; recommenced 2019	Every nesting season

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 14**

- 1-2 km<sup>2</sup>
- 2-5 km<sup>2</sup>
- 5-10 km<sup>2</sup>
- 10-15 km<sup>2</sup>
- 15-100 km<sup>2</sup>
- more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>27</sup>: Broad Sound Islands National Park encompasses a total area of 118 ha.

**h) Please fill out the following table for the in-water habitat of site 14. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Decreasing		
Green ( <i>Chelonia mydas</i> )	YES	NO		Increasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Decreasing		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO		Increasing		

<sup>27</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>28</sup>:

Colin J. Limpus, Nancy N. FitzSimmons, Ian Anderson, Wayne Bennet, Leisa Baldwin, Leisa Fien, Fiona Hoffmann, Erwin Hoffmann, Duncan J. Limpus, and Trevor Turner (2021). Monitoring of eastern Australian Flatback turtle, *Natator depressus*, breeding populations in the Gladstone region: 2020-2021 breeding season. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation’s Ecosystem Research and Monitoring Program. 64 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV\\_ERMP\\_CA120000291-Flatback\\_Turtle\\_Natator\\_depressus\\_202002021\\_Breeding\\_Populations\\_in\\_the\\_Gladstone\\_Region\\_2020-2021.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV_ERMP_CA120000291-Flatback_Turtle_Natator_depressus_202002021_Breeding_Populations_in_the_Gladstone_Region_2020-2021.pdf)

Queensland government website:

<https://parks.des.qld.gov.au/parks/broad-sound-islands/things-to-do>

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Queensland Government 2013. Broad Sound Islands National Park and adjoining State Waters Management Statement 2013

[https://parks.des.qld.gov.au/\\_data/assets/pdf\\_file/0024/167712/broad-sound-islands.pdf](https://parks.des.qld.gov.au/_data/assets/pdf_file/0024/167712/broad-sound-islands.pdf)

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

	INTENSITY OF THREAT Mark with an ‘ X’				
	Unknown	None	Low	Medium	High

<sup>28</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

NATURE OF THREAT			(rare event)		(common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes		X			
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent		X			
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles			X		
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			

Other (type in): Climate change				X	
Other (type in): noise pollution		X			

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~
- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Colin J. Limpus, Nancy N. FitzSimmons, Ian Anderson, Wayne Bennet, Leisa Baldwin, Leisa Fien, Fiona Hoffmann, Erwin Hoffmann, Duncan J. Limpus, and Trevor Turner (2021). Monitoring of eastern Australian Flatback turtle, *Natator depressus*, breeding populations in the Gladstone region: 2020-2021 breeding season. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 64 pp.  
[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV\\_ERMP\\_CA120000291-\\_Flatback\\_Turtle\\_Natator\\_depressus\\_202002021\\_Breeding\\_Populations\\_in\\_the\\_Gladstone\\_Region\\_2020-2021.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV_ERMP_CA120000291-_Flatback_Turtle_Natator_depressus_202002021_Breeding_Populations_in_the_Gladstone_Region_2020-2021.pdf)

Queensland government website:

<https://parks.des.qld.gov.au/parks/broad-sound-islands/things-to-do>

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Queensland Government 2013. Broad Sound Islands National Park and adjoining State Waters Management Statement 2013

[https://parks.des.qld.gov.au/data/assets/pdf\\_file/0024/167712/broad-sound-islands.pdf](https://parks.des.qld.gov.au/data/assets/pdf_file/0024/167712/broad-sound-islands.pdf)

**SITE 15 Curtis Island (Flatback turtle – Eastern Queensland stock)**

**a) Provide the name, location and length of the site**

Name of the site: Curtis Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 23.61°S, 151.15°E  
Length: 42 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES " "

**c) Is this an [IOSEA Network Site](#)?**

∴ NO "

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES " "

Details: Curtis Island Conservation Park and Conservation Zone, and National Park and Marine National Park

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1980. Monitoring is carried out every nesting season.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than**

100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	a	Decreasing	1993	Annual monitoring
Green ( <i>Chelonia mydas</i> )	YES	a	Increasing	1993	Annual monitoring
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES		increasing	1980	Annual monitoring

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 15**

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>29</sup>:  
 Curtis Island Conservation Zone and Marine National Park cover an area of around 280 km<sup>2</sup>  
[https://parks.des.qld.gov.au/\\_data/assets/pdf\\_file/0024/157605/curtis-map.pdf](https://parks.des.qld.gov.au/_data/assets/pdf_file/0024/157605/curtis-map.pdf)

<sup>29</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.



h) Please fill out the following table for the in-water habitat of site 15. Please include information on population number and trend, if available.

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Decreasing		
Green ( <i>Chelonia mydas</i> )	YES	NO		Increasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO		Increasing		

Please provide any references and links<sup>30</sup>:

Limpus, C. J., Chaloupka, M., Ferguson, J., FitzSimmons, N. N. and Parmenter, C. J. (2020). Flatback Turtle, *Natator depressus*, 2019-2020 Breeding Season, at Curtis, Peak and Avoid Islands. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 58 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env\\_ERMPKA12000291\\_Flatback\\_Turtle\\_Population\\_Size\\_Trends\\_-Final\\_Report.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env_ERMPKA12000291_Flatback_Turtle_Population_Size_Trends_-Final_Report.pdf)

<sup>30</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Colin J. Limpus, Nancy N. FitzSimmons, Ian Anderson, Wayne Bennet, Leisa Baldwin, Leisa Fien, Fiona Hoffmann, Erwin Hoffmann, Duncan J. Limpus, and Trevor Turner (2021). Monitoring of eastern Australian Flatback turtle, *Natator depressus*, breeding populations in the Gladstone region: 2020-2021 breeding season. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 64 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV\\_ERMP\\_CA120000291-Flatback\\_Turtle\\_Natator\\_depressus\\_202002021\\_Breeding\\_Populations\\_in\\_the\\_Gladstone\\_Region\\_2020-2021.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV_ERMP_CA120000291-Flatback_Turtle_Natator_depressus_202002021_Breeding_Populations_in_the_Gladstone_Region_2020-2021.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			

Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent		X			
Inshore oil pollution		X			
Port/Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)					X
Artificial lighting (on land or near shore)					X
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles			X		
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (, dogs)				X	
Other (type in): Climate change				X	
Other (type in): Diseases and pathogens			X		
Other (type in): noise pollution		X			

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

~~Training/ capacity building for researchers and field workers~~

- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Training/capacity building for community based activities
- “ Training/capacity building for onboard observer programmes
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Colin J. Limpus, Nancy N. FitzSimmons, Ian Anderson, Wayne Bennet, Leisa Baldwin, Leisa Fien, Fiona Hoffmann, Erwin Hoffmann, Duncan J. Limpus, and Trevor Turner (2021). Monitoring of eastern Australian Flatback turtle, *Natator depressus*, breeding populations in the Gladstone region: 2020-2021 breeding season. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation’s Ecosystem Research and Monitoring Program. 64 pp. [https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV\\_ERMP\\_CA120000291-Flatback Turtle Natator depressus 202002021 Breeding Populations in the Gladstone Region 2020-2021.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1807789-v1-ENV_ERMP_CA120000291-Flatback Turtle Natator depressus 202002021 Breeding Populations in the Gladstone Region 2020-2021.pdf)

Limpus, C. J., Chaloupka, M., Ferguson, J., FitzSimmons, N. N. and Parmenter, C. J. (2020). Flatback Turtle, *Natator depressus*, 2019-2020 Breeding Season, at Curtis, Peak and Avoid Islands. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 58 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env\\_ERMPCA12000291\\_Flatback\\_Turtle\\_Population\\_Size\\_Trends\\_-Final\\_Report.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env_ERMPCA12000291_Flatback_Turtle_Population_Size_Trends_-Final_Report.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 16 Crab Island (Flatback turtle – Arafura Sea stock; Hawksbill turtle – North Queensland stock; Olive Ridley – North-western Cape York stock)**

**a) Provide the name, location and length of the site**

Name of the site: Crab Island State/province: Queensland Latitude and longitude (middle of the beach or two from either end of the beach): 10.985°S, 142.099°E Length: 6 km
--

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

YES

**c) Is this an [IOSEA Network Site](#)?**

NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

NO

Details:
----------

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1991. Monitoring is intermittently and carried out in mid year.

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO	f			
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES (occasional)	b	Decreasing	1991	Intermittent
Olive Ridley ( <i>Lepidochelys olivacea</i> )	YES (occasional)	a	Decreasing	1991	Intermittent
Flatback ( <i>Natator depressus</i> )	YES	f	Increasing	1991	Intermittent

- g) Please estimate the approximate area of adjacent in-water habitat for SITE 16

- ~ 1-2 km<sup>2</sup>
- ~ 2-5 km<sup>2</sup>
- ~ 5-10 km<sup>2</sup>
- ~ 10-15 km<sup>2</sup>

.. 15-100 km<sup>2</sup>

.. more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>31</sup>: NA. Nil input received.

**h) Please fill out the following table for the in-water habitat of site 16. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO	NO				
Green ( <i>Chelonia mydas</i> )	YES	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	YES	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO				

<sup>31</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.



Please provide any references and links<sup>32</sup>:

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)			X		
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)				X	
Incidental capture in coastal fisheries			X		
Boat strikes		X			

<sup>32</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent		X			
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				X	
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea				X	
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change					X
Other (type in): Noise pollution		X			

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~
- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~

- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 17 Eco Beach (Flatback turtle – South-west Kimberley)**

**a) Provide the name, location and length of the site**

Name of the site: Eco Beach  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 18.33°S, 122.09°E  
Length: 4 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Yawuru Nagulagun / Roebuck Bay Marine Park (Class A)

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2008. Monitoring is carried out every nesting season

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than**

100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	B	Unknown	2008	Every nesting season

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 17**

✓ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>33</sup>: The marine park covers an area of approximately 78,800 ha.

Government of Western Australia 2016. Yawuru Nagulagun / Roebuck Bay Marine Park – Joint management plan 2016  
[https://maps.northwestatlas.org/files/montara/links\\_to\\_plans/WA/3.%20D%20Yawuru%20ynrbmp\\_mangement\\_plan\\_2016.pdf](https://maps.northwestatlas.org/files/montara/links_to_plans/WA/3.%20D%20Yawuru%20ynrbmp_mangement_plan_2016.pdf)

<sup>33</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

h) Please fill out the following table for the in-water habitat of site 17. Please include information on population number and trend, if available.

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	YES	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	YES	NO		Unknown		
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

Please provide any references and links<sup>34</sup>:

Government of Western Australia 2016. Yawuru Nagulagun / Roebuck Bay Marine Park – Joint management plan 2016  
[https://maps.northwestatlas.org/files/montara/links\\_to\\_plans/WA/3.%20D%20Yawuru%20ynrbmp\\_mangement\\_plan\\_2016.pdf](https://maps.northwestatlas.org/files/montara/links_to_plans/WA/3.%20D%20Yawuru%20ynrbmp_mangement_plan_2016.pdf)

McFarlane G (2012) Eco Beach Sea Turtle Monitoring Program: Report of 2011 nesting activity for the

<sup>34</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

flatback turtle (*Natator depressus*) at Eco Beach, Western Australia. Western Australia. Conservation Volunteers.

<https://www.biosphere-expeditions.org/images/stories/pdfs/reports/report-waustralia11.pdf>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)		X			
Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development			X		

(e.g. construction that disrupts nesting activities)					
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles			X		
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)			X		
Other (type in): Climate change				X	
Other (type in): noise pollution			X		
Other (type in): Diseases and pathogens			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ” Training/ capacity building for researchers and field workers
- ” Training/ capacity building for authorities and/or managers
- ” Scientific equipment and/or technical support

Please provide details:

- |   |
|---|
| <ul style="list-style-type: none"> <li>” Training/ capacity building for researchers and field workers</li> <li>” Training/ capacity building for authorities and/or managers</li> <li>” Scientific equipment and/or technical support</li> </ul> |
|---|



**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

- Capacity building with Traditional Owners Nagulagun Buru Yawuru
- Recommend additional satellite tags
- Recommend studies on egg and hatchling predation

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Government of Western Australia 2016. Yawuru Nagulagun / Roebuck Bay Marine Park – Joint management plan 2016  
[https://maps.northwestatlas.org/files/montara/links\\_to\\_plans/WA/3.%20D%20Yawuru%20ynrbmp\\_mangement\\_plan\\_2016.pdf](https://maps.northwestatlas.org/files/montara/links_to_plans/WA/3.%20D%20Yawuru%20ynrbmp_mangement_plan_2016.pdf)

McFarlane G (2012) Eco Beach Sea Turtle Monitoring Program: Report of 2011 nesting activity for the flatback turtle (*Natator depressus*) at Eco Beach, Western Australia. Western Australia. Conservation Volunteers.  
<https://www.biosphere-expeditions.org/images/stories/pdfs/reports/report-waustralia11.pdf>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 18 Eighty Mile Beach (Flatback turtle – South-west Kimberley)**

**a) Provide the name, location and length of the site**

Name of the site: Eighty Mile Beach  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 19.72°S, 120.75°E  
Length: 220 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Marine Park

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2008. Monitoring is carried out every nesting season. Track count aerial surveys at 2-3 yr intervals

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 -**

500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	e	Unknown	2008	Every nesting season

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 18**

- 1-2 km<sup>2</sup>
- 2-5 km<sup>2</sup>
- 5-10 km<sup>2</sup>
- 10-15 km<sup>2</sup>
- 15-100 km<sup>2</sup>
- more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>35</sup>: Eighty Mile Beach Marine Park covers an area of approximately 200,000 ha  
<https://www.dbca.wa.gov.au/management/plans/eighty-mile-beach-marine-park>  
<https://exploreparcs.dbca.wa.gov.au/park/eighty-mile-beach-marine-park>

**h) Please fill out the following table for the in-water habitat of site 18. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	YES	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	YES	NO		Unknown		
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

<sup>35</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>36</sup>:

Western Australia Department of Parks and Wildlife. Eighty Mile Beach Marine Park management plan 80 2014 – 2024  
<https://www.dbca.wa.gov.au/management/plans/eighty-mile-beach-marine-park>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)		X			

<sup>36</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)			X		
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles			X		
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)			X		
Other (type in): Climate change				X	
Other (type in): noise pollution			X		
Other (type in): Diseases and pathogens			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~
- ~~Training/ capacity building for people from coastal communities~~

- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Western Australia Department of Parks and Wildlife. Eighty Mile Beach Marine Park management plan 80 2014 – 2024  
<https://www.dbca.wa.gov.au/management/plans/eighty-mile-beach-marine-park>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 19 Mundabullangana Station and Cowrie Beach (Flatback turtle – Pilbara stock)**

**a) Provide the name, location and length of the site**

Name of the site: Mundabullangana Station and Cowrie Beach  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 20.46°S, 118.01°E  
Length: 12 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ NO

Details:

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1992, every nesting season.

**f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than**



100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	e - f	Increasing	1992	Every nesting season

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 19**

- 1-2 km<sup>2</sup>
- 2-5 km<sup>2</sup>
- 5-10 km<sup>2</sup>
- 10-15 km<sup>2</sup>
- 15-100 km<sup>2</sup>
- more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>37</sup>: NA. Nil input received.

**h) Please fill out the following table for the in-water habitat of site 19. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

<sup>37</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>38</sup>:

Barrow Island / Mundabullangana Flatback Turtle Tagging Program

<https://www.penv.com.au/opportunities/>

Chevron Australia Pty Ltd 2018. Gorgon Gas Development and Jansz Feed Gas Pipeline. Long-term Marine Turtle Management Plan.

<https://australia.chevron.com/-/media/australia/our-businesses/documents/gorgon-emp-long-term-marine-turtle-management-plan.PDF>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X	X (at the stock level)		

<sup>38</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				X	
Vehicles			X		
Sand mining / removal			X		
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)				X	
Other (type in): Climate change				X	
Other (type in): noise pollution				X	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~

- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Barrow Island / Mundabullangana Flatback Turtle Tagging Program

<https://www.penv.com.au/opportunities/>

Chevron Australia Pty Ltd 2018. Gorgon Gas Development and Jansz Feed Gas Pipeline. Long-term Marine Turtle Management Plan.

<https://australia.chevron.com/-/media/australia/our-businesses/documents/gorgon-emp-long-term-marine-turtle-management-plan.PDF>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 20 Milman Islet (Hawksbill turtle – North Queensland stock; Green turtle – Northern Great Barrier Reef stock)**

**a) Provide the name, location and length of the site**

Name of the site: Milman Islet  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach): 11.17°S, 143.02°E  
Length: 1 km

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

☐ YES ☐ NO

**c) Is this an [IOSEA Network Site](#)?**

☐ YES ☐ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

☐ YES ☐ NO

Details:  
Denham Group National Park. Within Great Barrier Reef World Heritage Area.

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1991

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	YES	c	Decreasing	1991	Every nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	c	Decreasing	1991	Every nesting season
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

- g) Please estimate the approximate area of adjacent in-water habitat for SITE 20

1-2 km<sup>2</sup>

2-5 km<sup>2</sup>

5-10 km<sup>2</sup>

10-15 km<sup>2</sup>

15-100 km<sup>2</sup>

more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>39</sup>:  
 The reef flat has an area of approximately 560 ha.  
[https://www.researchgate.net/profile/Alastair-Freeman-2/publication/349519155\\_Social\\_grouping\\_behaviour\\_in\\_early\\_juvenile\\_Blacktip\\_Reef\\_Sharks\\_around\\_Milman\\_Island\\_in\\_the\\_far\\_north\\_of\\_the\\_Great\\_Barrier\\_Reef\\_Queensland/links/60349b864585158939c27dc1/Social-grouping-behaviour-in-early-juvenile-Blacktip-Reef-Sharks-around-Milman-Island-in-the-far-North-of-the-Great-Barrier-Reef-Queensland.pdf](https://www.researchgate.net/profile/Alastair-Freeman-2/publication/349519155_Social_grouping_behaviour_in_early_juvenile_Blacktip_Reef_Sharks_around_Milman_Island_in_the_far_north_of_the_Great_Barrier_Reef_Queensland/links/60349b864585158939c27dc1/Social-grouping-behaviour-in-early-juvenile-Blacktip-Reef-Sharks-around-Milman-Island-in-the-far-North-of-the-Great-Barrier-Reef-Queensland.pdf)

**h) Please fill out the following table for the in-water habitat of site 20. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO	NO				
Green ( <i>Chelonia mydas</i> )	YES	NO		Decreasing		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Decreasing		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	NO	NO				

<sup>39</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.



Please provide any references and links<sup>40</sup>:

Australian Government and TSRA (2015). Torres Strait Dugong and Turtle Management Project. Marine Turtle Monitoring Project Report 2014-15. May 2015.

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Sea Turtle Foundation – Milman Islet Research

<https://seaturtlefoundation.org/milman-islet-research>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			

<sup>40</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Direct harvest of animals in coastal waters at or near the site			X (at the stock level)		
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)					X
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				X	
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

Technical expertise to enhance conservation or management at the site

Please provide details:

Technical expertise to enhance conservation or management at the site

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Australian Government and TSRA (2015). Torres Strait Dugong and Turtle Management Project. Marine Turtle Monitoring Project Report 2014-15. May 2015.

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Sea Turtle Foundation – Milman Islet Research

<https://seaturtlefoundation.org/milman-islet-research>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

---

#### **OTHER INDEX BEACHES WITH LONG-TERM MONITORING**

The following index beaches have also been monitored for +5 years. Please note that information on these sites is limited. Therefore, we have decided to list them in a summarised version under this new section.

---

##### **SITE 21 Cable Beach (Broome, WA)**

Flatback turtle monitoring 2006-2023, Conservation Volunteers 2006-2012, 2013-2023 DBCA and Cable Beach Turtle Monitors, stock presumed related to Ecobeach Management Unit, 10-50 nests with upward trend.

---

##### **SITE 22 Cemetery Beach (Port Hedland, WA)**

Flatback turtle monitoring, Care for Hedland 2004-2024, 100-500 nests with stable trend

---

##### **SITE 23 Rosemary Island (Dampier Archipelago, WA)**

Hawksbill turtle monitoring 1986-2023. Western Australia genetic stock. Trend unknown. Class A Nature Reserve. May support the largest number of breeding hawksbill turtles in the Indian Ocean. 100-500 tracks/night during nesting season.

---

##### **SITE 24 Varanus Island (Lowendal Island, WA)**

Hawksbill monitoring 1987-2023. Western Australia genetic stock. Class C Nature Reserve. Small, Stable population. Lowendal Islands Nature Reserve.

---

##### **SITE 25 Thevenard Island (Pilbara Region, WA)**

Flatback monitoring since 2016. Also supports green turtle nesting.

---

**SITE 26 Delambre Island (Dampier Archipelago, WA)**

Flatback monitoring since 2017. Also supports green and hawksbill nesting.

---

**SITE 27 Gardangarl or Field Island (Kakadu National Park, NT)**

Flatback turtle monitoring 2002-2024. The island is part of Kakadu National Park, which is a UNESCO World Heritage Site.

---

**SITE 28 Bare Sand Island (NT)**

Flatback turtle monitoring, Sea Darwin 1989-2024.

---

---

---

**OTHER INDEX BEACHES WITHOUT CURRENT MONITORING**

PLEASE NOTE THAT THE FOLLOWING SITES (SITE 29-33) ARE NOT CURRENTLY MONITORED, BUT WERE HIGHLIGHTED AS RELEVANT SITES FOR MARINE TURTLE POPULATIONS IN AUSTRALIA.

**SITE 29 Maizab Kaur (also known as Bramble Cay; Green turtle – Northern Great Barrier Reef stock)**

**a) Provide the name, location and length of the site**

Name of the site: Maizab Kaur (also known as Bramble Cay) State/province: Queensland Latitude and longitude (middle of the beach or two from either end of the beach): 9.142°S, 143.875°E Length: 0.2 km
---

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

☐ " NO "

c) Is this an [IOSEA Network Site](#)?

☐ NO "

d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?

☐ NO "

Details:

e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?

Details: 2006 (irregular surveys since the 70s), however monitoring has ceased in recent years. Yearly nesting and hatchling surveys had been previously conducted.

f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				

Green ( <i>Chelonia mydas</i> )	YES	e	Decreasing	2006	Each nesting season
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 6**

≈ 2-5 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>41</sup>: 2.2 km<sup>2</sup> approximately. Size of surrounding reef determined as measured on Google maps

**h) Please fill out the following table for the in-water habitat of site 6. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO	NO				
Green ( <i>Chelonia mydas</i> )	YES	NO	Unknown	Decreasing		

<sup>41</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	NO	NO				

Please provide any references and links<sup>42</sup>:

Australian Government and TSRA (2015). Torres Strait Dugong and Turtle Management Project. Marine Turtle Monitoring Project Report 2014-15. May 2015.

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf)

Torres Strait Regional Authority (2017) Torres Strait Dugong and Turtle Management Project: Marine Turtle Monitoring Project Report 2015-16. Published by the Torres Strait Regional Authority Land and Sea Management Unit, Thursday Island, Queensland. (61pp.).

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

<sup>42</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.



NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)			X		
Direct harvest of animals in coastal waters at or near the site			X		
Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)				X	
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)				X	
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)					X
Vehicles		X			
Sand mining / removal		X			

Natural threats, disease, predation of nests/nesting females or natural predation at sea		X			
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change					X
Other (type in): Vessel disturbance			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- “ Training/ capacity building for researchers and field workers
- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Training/capacity building for community-based activities
- “ Training/capacity building for onboard observer programmes
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

- l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Australian Government and TSRA (2015). Torres Strait Dugong and Turtle Management Project. Marine Turtle Monitoring Project Report 2014-15. May 2015.

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0008/13976/TSRA-2015-Marine-Turtle-Monitoring-Project-Report-2014-2015.pdf)

TSRA Annual Report 2016-2017

[https://www.tsra.gov.au/\\_data/assets/pdf\\_file/0003/17823/Annual-Report-2016-2017.pdf](https://www.tsra.gov.au/_data/assets/pdf_file/0003/17823/Annual-Report-2016-2017.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

---

**SITE 30 Gnaraloo Bay and Gnaraloo Station (Green turtle – North West Shelf stock; and Loggerhead – Western Australia stock)**

- a) Provide the name, location and length of the site**

Name of the site: Gnaraloo Bay and Gnaraloo Station

State/province: Western Australia

Latitude and longitude (middle of the beach or two from either end of the beach): 23.758°S, 113.558°E

Length: 8 km approximately

- b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ YES used to be monitored – not anymore

c) Is this an [IOSEA Network Site](#)?

∴ NO

d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?

∴ YES

Details: Marine Sanctuary located within the Nyinggulu Coastal Reserve

e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?

Details: 2008 (Gnaraloo Bay) and 2011 (Gnaraloo Station). Yearly nesting surveys until 2017.

f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ‘ a ’ through ‘ h ’, corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add “increasing”, “decreasing” or “stable”. If information on population and trend is not available, simply indicate which species are present at each location by inserting “yes” or “no” in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	300-500	Decreasing	2008-2017	Each nesting season
Green ( <i>Chelonia mydas</i> )	YES	unknown	Unknown	2008-2017	Each nesting season

Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	unknown	Unknown	2008-2017	Each nesting season
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	NO				

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 2**

- 1-2 km<sup>2</sup>
- 2-5 km<sup>2</sup>
- 5-10 km<sup>2</sup>
- 10-15 km<sup>2</sup>
- 15-100 km<sup>2</sup>
- more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>43</sup>:  
 Ningaloo Marine Park, which is adjacent to Gnaraloo Bay and Gnaraloo Station, covers a total area of 5070 km<sup>2</sup>

<https://ningaloo-atlas.org.au/node/215>

**h) Please fill out the following table for the in-water habitat of site 2. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
---------	-----------------------------------	--	-------------------	--	------------------------	--------------------------------------

<sup>43</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Loggerhead ( <i>Caretta caretta</i> )	YES	No, however they are monitored in the adjacent Ningaloo Marine Park	Unknown	Unknown		Ceased 2017
Green ( <i>Chelonia mydas</i> )	YES	No, however they are monitored in the adjacent Ningaloo Marine Park	Unknown	Unknown		Ceased 2017
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	No, however they are monitored in the adjacent Ningaloo Marine Park	Unknown	Unknown		Ceased 2017
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

Please provide any references and links<sup>44</sup>:

Hattingh K, Thomson JA, Goldsmith N, Nielsen K, Green A and Do M (2016) Gnaraloo Turtle Conservation Program (GTCP). Gnaraloo Bay Rookery and Gnaraloo Cape Farquhar Rookery, Report 2015/16. Western Australia. Gnaraloo Wilderness Foundation. pp 96.

[https://gnaraloo.org/assets/160608\\_ReportGTCP1516\\_KH\\_0.pdf](https://gnaraloo.org/assets/160608_ReportGTCP1516_KH_0.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an ' X '				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site				X (Green turtle stock – near the site)	
Egg collection (i.e. direct harvest by humans)			X (Green turtle stock –		

<sup>44</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

			near the site)		
Incidental capture in coastal fisheries			X		(X at the stock level, mainly loggerheads)
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent			X		
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)			X		
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			X		
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea					X
Predation by domestic / feral animals (cats, dogs)		X			X



Other (type in): Climate change					X
Other (type in): noise pollution			X		

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

Help to reduce predation of eggs and hatchlings from Ghost crabs and sea gulls – See Avenant et al PhD Thesis and corresponding manuscripts

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:  
 Hattingh K, Thomson JA, Goldsmith N, Nielsen K, Green A and Do M (2016) Gnaraloo Turtle Conservation Program (GTCP). Gnaraloo Bay Rookery and Gnaraloo Cape Farquhar Rookery, Report 2015/16. Western Australia. Gnaraloo Wilderness Foundation. pp 96.  
[https://gnaraloo.org/assets/160608\\_ReportGTCP1516\\_KH\\_0.pdf](https://gnaraloo.org/assets/160608_ReportGTCP1516_KH_0.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

---

**SITE 31 Lacepedes or Lacepede Islands (Green turtle – North West Shelf stock; and Flatback South-west Kimberley)**

**a) Provide the name, location and length of the site**

Name of the site: Lacepedes (also known as Lacepede Islands)  
State/province: Western Australia  
Latitude and longitude (middle of the beach or two from either end of the beach): 16.875°S, 122.159°E  
Length: 12 km (chain of islands)

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

~~∴ YES~~ ∴

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Class A Nature Reserve

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 1990. Year-round monitoring of sightings and nesting activity (see Woodside Energy Turtle Management Plan) - not currently monitored. May be monitored in coming years.

f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	YES	f	Unknown	1990s – not currently monitored	All-year round
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES (not considered an index beach for this species)	a	Unknown	1990s – not currently monitored	All-year round

g) Please estimate the approximate area of adjacent in-water habitat for SITE 3

- 1-2 km<sup>2</sup>
- 2-5 km<sup>2</sup>
- 5-10 km<sup>2</sup>

- “ 10-15 km<sup>2</sup>
- “ 15-100 km<sup>2</sup>
- “ more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>45</sup>.

**h) Please fill out the following table for the in-water habitat of site 3. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	Maybe	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		
Olive Ridley ( <i>Lepidochelys olivacea</i> )	Maybe	NO				

<sup>45</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		
---------------------------------------	-----	----	--	---------	--	--

Please provide any references and links<sup>46</sup>:

Waayers, D., Smith, L., Malseed, B. 2011. Inter-nesting distribution of green turtles (*Chelonia mydas*) and flatback turtles (*Natator depressus*) at the Lacepede Islands, Western Australia. Journal of the Royal Society of Western Australia 94, 359–364.

[https://rswa.org.au/publications/Journal/94\(2\)/Waayersetal.pp.359-364.pdf](https://rswa.org.au/publications/Journal/94(2)/Waayersetal.pp.359-364.pdf)

RPS 2010. Ecology of Marine Turtles of the Dampier Peninsula and the Lacepede Island Group 2009-2010, Browse LNG Development. Report prepared for Woodside Energy Limited, Perth.

[https://www.woodside.com/docs/default-source/our-business---documents-and-files/burrup-hub---documents-and-files/browse---documents-and-files/index-of-previous-browse-studies/f33---rps-2010c---ecology-of-marine-turtles-of-the-dampier-peninsula-and-the-lacepede-island-group\\_-2009-2010\\_.pdf](https://www.woodside.com/docs/default-source/our-business---documents-and-files/burrup-hub---documents-and-files/browse---documents-and-files/index-of-previous-browse-studies/f33---rps-2010c---ecology-of-marine-turtles-of-the-dampier-peninsula-and-the-lacepede-island-group_-2009-2010_.pdf)

Pluto LNG 2023. Sea Turtle Management Plan, Rev.12. Prepared for Woodside Burrup Pty Ltd, Perth.

<https://www.woodside.com/docs/default-source/our-business---documents-and-files/pluto---documents-and-files/pluto-lng-environmental-compliance-documents/pluto-lng-project---sea-turtle-management-plan.pdf>

Lincoln, G., Mathews, D., Oades, D. with the Balangarra, Bardi Jawi, Dambimangari, Karajarri, Mayala, Nyangumarta, Nyul Nyul, Wunambal Gaambera & Yawuru ISWAG members (2021) The Kimberley Indigenous Turtle & Dugong Initiative 2021-2031. Prepared by Mosaic Environmental for the Kimberley Indigenous Saltwater Advisory Group (ISWAG) Broome 2021.

[https://www.yawuru.org.au/wp-content/uploads/2021/12/ISWAG-Kimberley-Indigenous-Turtle-and-Dugong-Initiative\\_Implementation-Plan-2022-to-2032--complete-.pdf.pdf](https://www.yawuru.org.au/wp-content/uploads/2021/12/ISWAG-Kimberley-Indigenous-Turtle-and-Dugong-Initiative_Implementation-Plan-2022-to-2032--complete-.pdf.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

<sup>46</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

--

i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).

NATURE OF THREAT	INTENSITY OF THREAT Mark with an 'X'				
	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)	Irregular indigenous harvest			x	
Direct harvest of animals in coastal waters at or near the site			X	X (rating for the stock in general)	
Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent				X	
Inshore oil pollution		X			

Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)			X		
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)			X		
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)			X		
Other (type in): Climate change			X		
Other (type in): noise pollution				X	

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- “ Training/ capacity building for researchers and field workers
- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
  
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

Please provide details:

- “ Training/ capacity building for researchers and field workers
- “ Training/ capacity building for authorities and/or managers
- “ Training/ capacity building for people from coastal communities
- “ Training/capacity building for project development, fundraising, execution, evaluation
- “ Scientific equipment and/or technical support
- “ Technical expertise to enhance conservation or management at the site

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

ISWAG /DBCA joint management  
[https://www.yawuru.org.au/wp-content/uploads/2021/12/ISWAG-Kimberley-Indigenous-Turtle-and-Dugong-Initiative\\_Implementation-Plan-2022-to-2032-\\_complete.-pdf.pdf](https://www.yawuru.org.au/wp-content/uploads/2021/12/ISWAG-Kimberley-Indigenous-Turtle-and-Dugong-Initiative_Implementation-Plan-2022-to-2032-_complete.-pdf.pdf)

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Waayers, D., Smith, L., Malseed, B. 2011. Inter-nesting distribution of green turtles (*Chelonia mydas*) and flatback turtles (*Natator depressus*) at the Lacepede Islands, Western Australia. Journal of the Royal Society of Western Australia 94, 359–364.

[https://rswa.org.au/publications/Journal/94\(2\)/Waayersetal.pp.359-364.pdf](https://rswa.org.au/publications/Journal/94(2)/Waayersetal.pp.359-364.pdf)

RPS 2010. Ecology of Marine Turtles of the Dampier Peninsula and the Lacepede Island Group 2009-2010, Browse LNG Development. Report prepared for Woodside Energy Limited, Perth.

[https://www.woodside.com/docs/default-source/our-business---documents-and-files/burrup-hub---documents-and-files/browse---documents-and-files/index-of-previous-browse-studies/f33---rps-2010c---ecology-of-marine-turtles-of-the-dampier-peninsula-and-the-lacepede-island-group\\_-2009-2010\\_.pdf](https://www.woodside.com/docs/default-source/our-business---documents-and-files/burrup-hub---documents-and-files/browse---documents-and-files/index-of-previous-browse-studies/f33---rps-2010c---ecology-of-marine-turtles-of-the-dampier-peninsula-and-the-lacepede-island-group_-2009-2010_.pdf)

Pluto LNG 2023. Sea Turtle Management Plan, Rev.12. Prepared for Woodside Burrup Pty Ltd, Perth.



<https://www.woodside.com/docs/default-source/our-business---documents-and-files/pluto---documents-and-files/pluto-Ing-environmental-compliance-documents/pluto-Ing-project---sea-turtle-management-plan.pdf>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

Lincoln, G., Mathews, D., Oades, D. with the Balangarra, Bardi Jawi, Dambimangari, Karajarri, Mayala, Nyangumarta, Nyul Nyul, Wunambal Gaambera & Yawuru ISWAG members (2021) The Kimberley Indigenous Turtle & Dugong Initiative 2021-2031. Prepared by Mosaic Environmental for the Kimberley Indigenous Saltwater Advisory Group (ISWAG) Broome 2021.

[https://www.yawuru.org.au/wp-content/uploads/2021/12/ISWAG-Kimberley-Indigenous-Turtle-and-Dugong-Initiative\\_Implementation-Plan-2022-to-2032--complete-.pdf.pdfs](https://www.yawuru.org.au/wp-content/uploads/2021/12/ISWAG-Kimberley-Indigenous-Turtle-and-Dugong-Initiative_Implementation-Plan-2022-to-2032--complete-.pdf.pdfs)

---

**SITE 32 Montebello Islands (Green turtle – North West Shelf stock; Hawksbill turtle – Western Australia stock; Flatback turtle – Pilbara stock)**

**a) Provide the name, location and length of the site**

Name of the site: Montebello Islands

State/province: Western Australia

Latitude and longitude (middle of the beach or two from either end of the beach): 20.439°S, 115.537°E

Length: 16 km (approximately – group of islands)

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

∴ NO

**c) Is this an [IOSEA Network Site](#)?**

∴ NO

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

∴ YES

Details: Conservation and Marine Park. Class A Nature Reserve.

e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?

Details: Not monitored

f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )					
Green ( <i>Chelonia mydas</i> )	YES	b	Unknown	Not monitored	
Leatherback ( <i>Dermochelys coriacea</i> )					
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	e	Unknown	Not monitored	
Olive Ridley ( <i>Lepidochelys olivacea</i> )					

Flatback ( <i>Natator depressus</i> )	YES	d	Unknown	Not monitored	
---------------------------------------	-----	---	---------	---------------	--

**g) Please estimate the approximate area of adjacent in-water habitat for SITE 4**

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>47</sup>:  
The Marine Park has 58,331 ha.

**h) Please fill out the following table for the in-water habitat of site 4. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	YES	NO		Unknown		
Green ( <i>Chelonia mydas</i> )	YES	NO		Unknown		
Leatherback ( <i>Dermochelys coriacea</i> )	NO	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	YES	NO		Unknown		

<sup>47</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO	NO				
Flatback ( <i>Natator depressus</i> )	YES	NO		Unknown		

Please provide any references and links<sup>48</sup>:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 324.

[https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY\\_TIME&searchTarget=THIS\\_LIBRARY&activeMenuitem=false](https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20australian%20marine%20turtles&operator=AND&timeScale=ANY_TIME&searchTarget=THIS_LIBRARY&activeMenuitem=false)

Chevron Australia Pty Ltd 2018. Gorgon Gas Development and Jansz Feed Gas Pipeline. Long-term Marine Turtle Management Plan.

<https://australia.chevron.com/-/media/australia/our-businesses/documents/gorgon-emp-long-term-marine-turtle-management-plan.PDF>

Commonwealth of Australia 2017. Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

	INTENSITY OF THREAT Mark with an ' X'				
	Unknown	None	Low	Medium	High

<sup>48</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

NATURE OF THREAT			(rare event)		(common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)			X		
Incidental capture in coastal fisheries			X		
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent				X	
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)				X	
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)				X	
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea			X		
Predation by domestic / feral animals (cats, dogs)		X			
Other (type in): Climate change				X	

Other (type in): noise pollution				X	
----------------------------------	--	--	--	---	--

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

“ Scientific equipment and/or technical support

Please provide details:

“ Scientific equipment and/or technical support

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

Satellite tracking tags

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus CJ 2009. A Biological Review of Australian Marine Turtles. Brisbane, Queensland. Queensland Government Environmental Protection Agency. pp 32  
<https://qldgov.softlinkhosting.com.au/liberty/opac/search.do?mode=ADVANCED&=AUTHOR&=KEYWORD&queryTerm=a%20biological%20review%20of%20>

Chevron Australia Pty Ltd 2018. Gorgon Gas Development and Jansz Feed Gas Pipeline. Long-term Marine Turtle Management Plan.  
<https://australia.chevron.com/-/media/australia/our-businesses/documents/gorgon-emp-long-term-marine-turtle-management-plan.PDF>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.  
<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**SITE 33 Avoid Island (Flatback turtle – Eastern Queensland stock)**

**a) Provide the name, location and length of the site**

Name of the site: Avoid Island  
State/province: Queensland  
Latitude and longitude (middle of the beach or two from either end of the beach):  
Length:

**b) Is this an index beach (An index beach is defined as a marine turtle nesting beach, which has been monitored for at least five years using a standardized set of methods and which will continue to be monitored in the long term)?**

.. .. NO ..

**c) Is this an [IOSEA Network Site](#)?**

.. .. NO ..

**d) Does this site have any other international or national status (e.g. protected area, Ramsar, UNESCO)?**

.. .. NO ..

Details: Nature Refuge (privately owned).

**e) When did marine turtle monitoring start at this location (year) and how often is monitoring carried out?**

Details: 2012. Monitoring was carried out every nesting season. Ceased 2021

- f) Indicate the species present at this site, estimated number of nests per year for each species by inserting, in the appropriate boxes, one of the letters ' a ' through ' h ', corresponding to the following scale: a: 1 - 10 nests ; b: 11 - 100 nests ; c: 101 - 500 nests ; d: 501 - 1,000 nests ; e: 1,001 - 5,000 nests ; f: 5,001 - 10,000 nests ; g: 10,001 - 100,000 nests; h: more than 100,000 nests. If trend information is available, add "increasing", "decreasing" or "stable". If information on population and trend is not available, simply indicate which species are present at each location by inserting "yes" or "no" in the appropriate boxes.

Species	Species present at this location?	Number of clutches per year	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO				
Green ( <i>Chelonia mydas</i> )	NO				
Leatherback ( <i>Dermochelys coriacea</i> )	NO				
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO				
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO				
Flatback ( <i>Natator depressus</i> )	YES	c	Increasing	2012-2021	ceased 2021

- g) Please estimate the approximate area of adjacent in-water habitat for SITE 5

- " 1-2 km<sup>2</sup>
- " 2-5 km<sup>2</sup>
- " 5-10 km<sup>2</sup>
- " 10-15 km<sup>2</sup>



- 15-100 km<sup>2</sup>
- more than 100 km<sup>2</sup>

Please describe the approximate area of the in-water habitat near the site and provide any references and links<sup>49</sup>: The island forms part of Northumberland Island National Park.

**h) Please fill out the following table for the in-water habitat of site 5. Please include information on population number and trend, if available.**

Species	Species present at this location?	Are marine turtles monitored in water?	Population number	Trend (decreasing, increasing, stable)	Monitored since (year)	How often is this species monitored?
Loggerhead ( <i>Caretta caretta</i> )	NO					
Green ( <i>Chelonia mydas</i> )	NO					
Leatherback ( <i>Dermochelys coriacea</i> )	NO					
Hawksbill ( <i>Eretmochelys imbricata</i> )	NO					
Olive Ridley ( <i>Lepidochelys olivacea</i> )	NO					
Flatback ( <i>Natator depressus</i> )	NO					

<sup>49</sup> Provide sources of information supporting the above responses, include reports (governmental, departamental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

Please provide any references and links<sup>50</sup>:

Limpus, C. J., Chaloupka, M., Ferguson, J., FitzSimmons, N. N. and Parmenter, C. J. (2020). Flatback Turtle, *Natator depressus*, 2019-2020 Breeding Season, at Curtis, Peak and Avoid Islands. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 58 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env\\_ERMPCA12000291\\_Flatback\\_Turtle\\_Population\\_Size\\_Trends\\_Final\\_Report.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env_ERMPCA12000291_Flatback_Turtle_Population_Size_Trends_Final_Report.pdf)

Great Barrier Reef Foundation Website:

<https://www.barrierreef.org/the-reef/islands/avoid-island>

Queensland Trust for Nature Website:

<https://qtnf.org.au/a-turtle-sanctuary-at-avoid-island/>

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

**i) Please describe the main threats to marine turtles at this site (both at the nesting beach and in the water).**

	INTENSITY OF THREAT Mark with an ' X'				

<sup>50</sup> Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.

<b>NATURE OF THREAT</b>	Unknown	None	Low (rare event)	Medium	High (common occurrence)
Exploitation of nesting females (i.e. direct harvest on land)		X			
Direct harvest of animals in coastal waters at or near the site		X			
Egg collection (i.e. direct harvest by humans)		X			
Incidental capture in coastal fisheries		X			
Boat strikes			X		
Marine debris (e.g. plastics at sea, flotsam)			X		
Industrial effluent		X			
Inshore oil pollution		X			
Agricultural/urban/tourism development (e.g. construction that disrupts nesting activities)		X			
Artificial lighting (on land or near shore)		X			
Habitat degradation (e.g. coastal erosion, debris that obstructs nesting etc.)		X			
Vehicles		X			
Sand mining / removal		X			
Natural threats, disease, predation of nests/nesting females or natural predation at sea		X			
Predation by domestic / feral animals (cats, dogs)		X			

Other (type in): Climate change				X	
Other (type in): Diseases and pathogenss			X		
Other (type in): noise pollution		X			

**j) What assistance for conservation and management at this site would be useful, including through the IOSEA Capacity-building programme? Please chose from the list below:**

- ~~Training/ capacity building for researchers and field workers~~
- ~~Training/ capacity building for authorities and/or managers~~
- ~~Training/ capacity building for people from coastal communities~~
- ~~Training/capacity building for community-based activities~~
- ~~Training/capacity building for onboard observer programmes~~
- ~~Training/capacity building for project development, fundraising, execution, evaluation~~
- ~~Scientific equipment and/or technical support~~
- ~~Technical expertise to enhance conservation or management at the site~~

Please provide details:

NA. Nil input received.

**k) If necessary, use the text box to give further details or clarification about any of the information provided.**

**l) Provide sources of information supporting the above responses, include reports (governmental, departmental, university, NGO, etc.) as well as published articles (scientific or online articles); also include appropriate links to these information sources, and attach digital files if necessary.**

Sources:

Limpus, C. J., Chaloupka, M., Ferguson, J., FitzSimmons, N. N. and Parmenter, C. J. (2020). Flatback Turtle, *Natator depressus*, 2019-2020 Breeding Season, at Curtis, Peak and Avoid Islands. Brisbane: Department of Environment and Science, Queensland Government. Report produced for the Ecosystem Research and Monitoring Program Advisory Panel as part of Gladstone Ports Corporation's Ecosystem Research and Monitoring Program. 58 pp.

[https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env\\_ERMPCA12000291\\_Flatback\\_Turtle\\_Population\\_Size\\_Trends\\_-Final\\_Report.pdf](https://www.gpcl.com.au/wp-content/uploads/2022/08/DOCSCQPA-1793425-v1-Env_ERMPCA12000291_Flatback_Turtle_Population_Size_Trends_-Final_Report.pdf)

Department of Environment and Science (2021) Queensland Marine Turtle Conservation Strategy (2021–2031). Queensland Government, Brisbane.

[https://www.qld.gov.au/\\_data/assets/pdf\\_file/0021/314184/marine-turtle-conservation-strategy.pdf](https://www.qld.gov.au/_data/assets/pdf_file/0021/314184/marine-turtle-conservation-strategy.pdf)

Great Barrier Reef Foundation Website:

<https://www.barrierreef.org/the-reef/islands/avoid-island>

Queensland Trust for Nature Website:

<https://qtnf.org.au/a-turtle-sanctuary-at-avoid-island/>

Commonwealth of Australia (2017). Recovery Plan for Marine Turtles in Australia.

<https://www.agriculture.gov.au/sites/default/files/documents/recovery-plan-marine-turtles-2017.pdf>

---

End of site-specific section

---

OFFLINE COPY