

# NSW Threatened Species Scientific Committee

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## Conservation Assessment of *Natator depressus* Garman 1880 (Cheloniidae)

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NSW Threatened Species Scientific Committee

### Flatback Turtle *Natator depressus* Garman 1880 (Cheloniidae)

Distribution: Australian endemic  
Current EPBC Act Status: Vulnerable  
Current NSW BC Act Status: Not listed

Proposed listing on NSW BC Act: Not eligible for listing as it is considered a vagrant in NSW

### Conservation Advice: *Natator depressus*

#### Summary of Conservation Assessment

In response to advice of a potential rare outlying nesting record of the Flatback Turtle in NSW (H. Cogger *in litt.* March 2017), a review of this species was undertaken. The review showed that in NSW the Flatback Turtle is known from only occasional records with no biologically important areas (i.e. for breeding, foraging, resting or migration) identified in NSW. The alleged breeding record from NSW could not be corroborated and is likely to be that of a different species. Hence, the Flatback Turtle is considered a vagrant in NSW and as such is not eligible for listing under the NSW BC Act.

#### Description and Taxonomy

*Natator depressus* is described by Cogger (2014) as:

“Grey or pale grey-green or olive above, the plates of the carapace covered by a thin, fleshy skin in adults. Creamy-yellow below, the ventral colour extending onto the sides of the neck and face. Hatchlings olive-green, the margins of the dorsal scutes broadly outlined in black. Head moderate. Three postoculars. Shell broadly oval, more or less heart-shaped, with upturned lateral edges in adults. Four costal shields on each side, Upper eyelid of small, irregular, subequal scales. Distal half of forelimb with rows of enlarged scales extending along phalanges separated by areas of small, irregular scales or wrinkled skin. 1.2 m.”

Common Name: Flatback Turtle

#### Distribution and Abundance

The Flatback Turtle occupies the tropical and warm temperate waters of northern Australia from the Kimberly region, Western Australia, to Torres Strait, and less commonly along the coast of Queensland and is an occasional visitor into northern NSW (Cogger 2014; Department of the Environment and Energy 2017). The species’ feeding grounds also extend to the Indonesian archipelago and Papua New Guinea coast, however all known breeding sites occur only within Australia (Department of the Environment and Energy 2017).

#### Records in NSW

Records of Flatback Turtles in NSW are infrequent. The oldest record in NSW is from 1980 (Cogger 2001). Since then, the species has been recorded on less than 20 occasions (BioNet NSW; ALA). Records of the species exist from Port Macquarie, Coffs Harbour, Port Stephens, Central Coast, Sydney and Jervis Bay. The majority of these records are reported captures, where the individual has subsequently died (BioNet NSW).

NSW DPI shark meshing data from February 2012 to February 2018 was searched with no records of Flatback Turtles being caught in the nets.

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The NSW Scientific Committee was advised that there was a potential rare nesting of the Flatback Turtle on the far north coast of NSW (H. Cogger *in litt.* March 2017). However, there is no evidence of this record in NSW BioNet or ALA and relevant local NPWS/OEH staff are unaware of any nesting record for this species in NSW (L. Cameron *in litt.* May 2018, M. Giese *in litt.* May 2018, S. Crocetti *in litt.* May 2018, H. Lloyd *in litt.* May 2018, L. Tarvey *in litt.* May 2018). It has subsequently been suggested that the record in question may have been for the Green Turtle (*Chelonia mydas*) (H. Cogger *in litt.* March 2018).

It is concluded that, in NSW, the Flatback Turtle is a vagrant, with no resident breeding populations.

As this species is considered to be a vagrant to NSW waters, information on its abundance has not been included.

## Ecology

Adult Flatback Turtles inhabit shallow, soft-bottomed areas, close to the shore and away from reefs, rarely venturing beyond the continental shelf (Limpus 2007). They are carnivorous, feeding mainly on soft-bodied invertebrates such as soft corals, molluscs and jellyfish (Limpus 2007).

Flatback Turtles nest on sandy tropical and sub-tropical beaches, with females showing high fidelity to a selected nesting beach, returning to the same location for each clutch (Limpus 2007). Like all marine turtles, females mostly come ashore to nest at, or just after dusk. Around 50 eggs are laid per clutch, with several clutches per season, but do not lay eggs every year, often laying for two consecutive years, then resting for a year (Cogger 2001).

## Threats

There are no documented major threatening processes impacting the Flatback Turtle in NSW and no critical habitat for this species has been identified in NSW (Department of the Environment and Energy 2017).

Threats to Flatback Turtle nationally include: climate change, light pollution, entanglement from marine debris, terrestrial predation, chemical and terrestrial discharge, infrastructure/coastal development (Department of the Environment and Energy 2017).

The threat of climate change could potentially impact this species distribution in NSW. Climate change is expected to result in changes in dispersal patterns, species range, and availability of food and habitat for Flatback Turtles, resulting in the species potentially nesting further south in response (Department of the Environment and Energy 2017). There has been an increase in records of Loggerhead Turtles (*Caretta caretta*) and Green Turtles (*Chelonia mydas*) nesting in NSW (Department of the Environment and Energy 2017) and it is predicted that a similar response may be seen in other marine turtles, including Flatback Turtles (Department of the Environment and Energy 2017).

## Assessment against IUCN Red List criteria

The Flatback Turtle is considered a vagrant in NSW and is not eligible for listing under the NSW BC Act, as such no assessment has been undertaken.

## References

Cogger HG (2001) The Status of Marine Reptiles in New South Wales. A report prepared for the New South Wales National Parks and Wildlife Service. Cogger Consulting Services P/L.

Cogger HG (2014) 'Reptiles and Amphibians of Australian 7<sup>th</sup> Edition.' (CSIRO publishing: Collingwood)

Department of the Environment and Energy (2017) Recovery Plan for Marine Turtles in Australia. Australian Government, Canberra.

IUCN Standards and Petitions Subcommittee (2017) Guidelines for Using the IUCN Red List Categories and Criteria. Version 13. Prepared by the Standards and Petitions Subcommittee.  
<http://www.iucnredlist.org/documents/RedListGuidelines.pdf>.

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Limpus CJ (2007) A biological review of Australian marine turtle species. 5. Flatback turtle, *Natator depressus* (Garman). Queensland Environmental Protection Agency.

## Expert Communications

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