

**Submission to the Standing Senate Committee  
on  
Shark mitigation and deterrent measures**

**BYCATCH AND MARINE TURTLES**

By Rochelle Ferris BSc

## Personal Background

I was born in Lismore and grew up exploring the coastline between Evans Head and the southern Gold Coast. While I was undertaking my undergraduate degree in marine biology my father (Lance Ferris) was laying the foundations of what later became Australia's busiest marine turtle hospital in Ballina.

In late 2007 I took over as General Manager of the marine turtle rehabilitation facility and remained in that role for 7 years. During that time I served and continue to work as an Australian Seabird Rescue representative in a number representative roles training NSW government staff and wildlife handling volunteers in marine turtle and seabird handling, first aid and husbandry under the emergency response plan for chemical and oil spills. Most recently I was consulted on NSW marine turtles in the Federal Government's Draft Recovery Plan for Marine Turtles, Marine Estate Management Authority Threat and Risk Assessment framework workshops, RMS construction of the Harwood Bridge and beach-lighting issues in the Tweed, Byron and Ballina Shires.

I'm currently in the third year of my PhD "Status, Size Class and Behaviour of Marine Turtles in NSW and the Impacts of Climate Change" under an Australian Postgraduate Award with James Cook University. My data collection methods include field work, public surveys and historical records. To date my database (previously unreported sightings) contains 1,400 marine turtle sightings from Tweed Heads to Merimbula and out to Lord Howe Island. My data collection period ends in July 2017.

## Summary

I wish to share with the Standing Committee relevant information regarding bycatch of the shark meshing trial. This information relates specifically to threatened species of marine turtles resident in Northern NSW and consequently impacted by the meshing activity. Due to a lack of Environmental Impact Assessment procedure, this information was not previously sought, or was ignored prior to the nets being deployed.

## Hawksbill Turtle

The published Management Plan for the NSW North Coast Shark Meshing Trial does acknowledge the presence of marine turtles in the area by listing species covered under the EPBC act and State legislation in a single table.

In that table, (refer to page 8 [http://www.dpi.nsw.gov.au/\\_data/assets/pdf\\_file/0004/685597/PDF-INT16-144869-Management-Plan-for-the-NSW-North-Coast-Mesh-Net-Trial-Nov-2016.pdf](http://www.dpi.nsw.gov.au/_data/assets/pdf_file/0004/685597/PDF-INT16-144869-Management-Plan-for-the-NSW-North-Coast-Mesh-Net-Trial-Nov-2016.pdf)), specifically in the field "NSW Listing Status" two different levels of conservation status are meshed together ultimately giving a false representation of how some species are handled by the State.

I single out, for example, the Hawksbill Turtle, *Eretmochelys imbricata*, listed in this table (page 9) as "Protected". The term 'protected' is not on the same scale as 'vulnerable' or 'endangered'. Hawksbill turtles are 'protected' by the EPBC Act, but **hawksbill turtles are not listed at all in NSW** and they are therefore not considered in any ensuing planning and assessment management plans or EIS in NSW fisheries (as per published Fisheries EIS). Current research, some done by NSW government agencies, shows residency of hawksbill turtles as far south as Montague Island, Batemans Bay.

Multiple reports of tagged turtles in the Byron Bay Marine Park prove hawksbill residency back to 2002. Hawksbill turtles are critically endangered internationally (IUCN Red List).

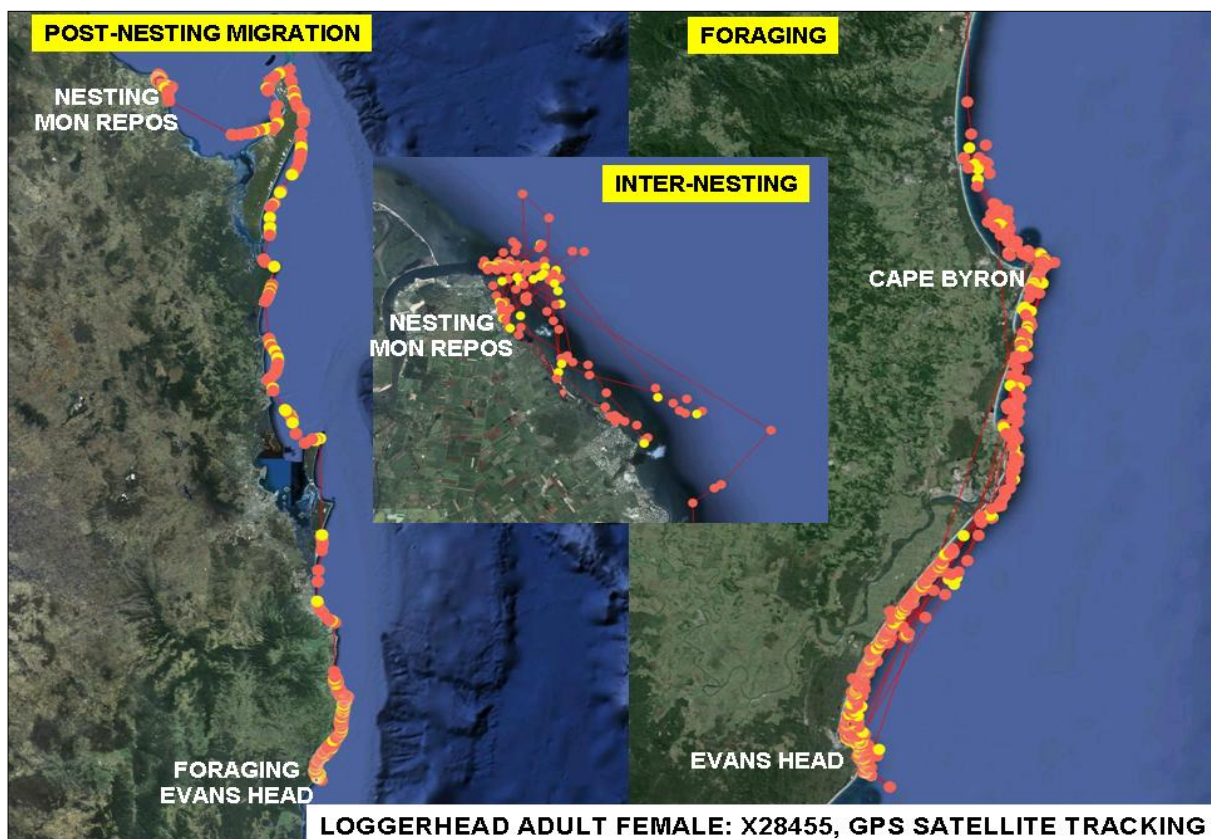
### Green Turtles

Green turtles are listed as vulnerable in NSW (*Chelonia mydas*) and are abundant in the Northern Rivers coastal region and extending down to the Solitary Island Marine Park and Sydney Harbour. They are the species most commonly seen in NSW coastal waters and many tourist operators specifically market their client's opportunity to encounter one. Encountering one can be achieved with reliability on a daily basis in the Cape Byron Marine Park. Green turtles also nest in NSW, although to date there has been little coordinated research to examine the extent of marine turtle nesting behaviour. Known nesting beaches extend across the Far North Coast from Fingal Beach at Tweed Heads to Angourie and beyond.

**A green turtle appears in publicly available DPI Fisheries drone footage from Lighthouse Beach.** Their daily dive profile means they usually stay above 25m.

### Loggerhead Turtles

Loggerhead turtles (*Caretta caretta*) are listed as endangered in NSW seen regularly by divers and boats in the Far North Coast region. Residency in the Cape Byron Marine Park has been proven by tagging conducted in 2002, some of which are still evident in the park. Loggerhead turtle nests annually in the Northern Rivers region between throughout summer. Recent research from the significant Mon Repos colony shows (Limpus) that **breeding females nesting at Mon Repos have a foraging range extending as far south at Evans Head.** See the satellite tracks below (CJ Limpus).



Given this evidence, the Far North Coast region of NSW falls under the Convention of Migratory Species Single Species Action Plan for Loggerhead Turtles in the South Pacific Region, which Australia

is a signatory to. This convention has not been recognised by the North Coast Shark Meshing Trial. [http://www.cms.int/sites/default/files/document/COP11\\_Doc\\_23\\_2\\_2\\_Rev1\\_SSAP\\_Loggerhead\\_Turtle\\_E.pdf](http://www.cms.int/sites/default/files/document/COP11_Doc_23_2_2_Rev1_SSAP_Loggerhead_Turtle_E.pdf)

The plan “Urges South Pacific Parties and other Parties with fishing fleets operating in the South Pacific Ocean, and invites South Pacific non-Party Range States to implement relevant provisions of the Action Plan” which clearly outlines the risk matrix ranking of fisheries bycatch as ‘very high’ and outlines a list of measures and actions to reduce that impact. One of those measures is keeping accurate records of interactions.

#### Bycatch Records

In February 2017, I made a fourth request to Fisheries for the supply of bycatch data for NSW, as recorded through a departmental ‘threatened species interaction’ form for commercial fishers. The request was fulfilled and the following report was given.

“NSW Commercial wild harvest fishers have reported to date (14/2/2017) the following TEPS interactions.

There have been 37 interactions forms received since July 2009 listing an interaction with GREE (all reported released Healthy)

There have been 1 interactions forms received since July 2009 listing an interaction with LEAT (reported released Healthy)

There have been 0 interactions forms received since July 2009 listing an interaction with HAWK or LOGG.”

On balance, **this bycatch report suggests that more turtles are killed in shark meshing in the Northern Rivers in one month than all commercial fisheries in NSW since from 2009 – 2017**. Under-reporting of threatened species interaction in NSW Fisheries is one potential cause for alarm and unfortunately this report raises more questions than answers particularly when compared to other Australian bycatch data (Riskas et al, 2016) which NSW Fisheries did not supply data to.

Riskas, Kimberly A., Fuentes, Mariana M.P.B., and Hamann, Mark (2016) *Justifying the need for collaborative management of fisheries bycatch: a lesson from marine turtles in Australia*. Biological Conservation, 196. pp. 40-47.

#### Consultation

Throughout the trial I was keenly following the information coming out of DPI Fisheries looking for my opportunity within the process to share my knowledge of marine turtles in the area. That chance would have been during the Environmental Impact Assessment, but the trial was given exemption from this process by the Federal Minister, which consequently exempted Fisheries.

Being deprived of any procedural channel to share this marine turtle information with the project officers, and the consequent first launching of the shark nets held at Lance Ferris Wharf, named after a local hero for marine conservation, was like rubbing salt into wounds.

I made myself available at the wharf on that day and made my views known to the relevant government staff who were present at the time and waiting for the Premier to arrive. I specifically asked if the crew on the boat who were imminently going to set a shark net off Ballina, were trained in detanglement, identification or record keeping for threatened species interactions. I was refused

an answer, although one of the temporary boat crew did ensure me he had that experience, and he was there for three days. I have video footage of this encounter. The media event was moved from the wharf.

At no point before the nets were deployed, were the local marine wildlife rescue groups consulted on bycatch outcomes. In a survey of public opinion on the shark nets, the public were told that there would be wildlife deterring pingers on the nets, but no one will answer if that ever happened. We were also told the nets would be checked twice daily, and at the start we were told the nets would not be left in at night. These measures were used to defend bycatch, but none of them were implemented and the positive results recorded from the public (who were lied to) survey were used again and again to support the trial.

### Conclusion

The evidence now speaks for itself, shark meshing on the North Coast is killing threatened marine turtles. Ignoring an international convention on migratory species that covers the area by side-stepping a proper environmental impact assessment is in my opinion, irresponsible. **A full and proper environmental impact assessment should have been completed thoroughly before the nets or drumlines were put in the water.** NSW has repeatedly failed on its core business responsibilities outlined in multiple policies, agreements and recovery plans in monitoring, assessing risks and taking action to protect marine turtles in NSW.

I'd like to thank the Committee for the opportunity to continue advocating for the protection of marine turtles in NSW.

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