

## The Net That Returned

ADAPTED FROM A STORY BY JANE DERMER



In 2006 a six-tonne Thai gill net was dragged into the shallows near the port of Nhulunbuy, north east Arnhem Land. It took a large team of dedicated people (equipped with a lot of heavy machinery) five hours to move the ghost net off the beach.

“We are very proud of the perseverance and commitment that our staff and our partners displayed when they pulled together to rid the ocean of this enormous ghost net, saving the lives of two juvenile hawksbill turtles” said Steve Roeger, CEO of the Dhimurru Aboriginal Corporation.

This colossal net had been sighted several times in the last 18 months; however it was too large for any of the local barges and fishing boats to do anything about it. The first sighting was in mid 2005 near Bremer Island where Dhimurru Rangers worked with the local water police and Arafura Sea Charters in an attempt to remove the net with a barge. Two members of the team dived on the net, discovering that its voluminous body was in excess of 4 x 4 x 11 metres and that it was caught on the bottom of the sea.

In the weeks following, the net drifted to the north of Bremer Island and then further out to sea. A year later an Australian fishing vessel reported a floating net, approximately 15 nautical kms from Bremer Island.

A Coastwatch plane promptly flew over the net to assess the situation and instructed the nearby Customs vessel *Corio Bay* to locate and tow the net to shore. Due to a distinctive yellow rope caught in the net, people realised that it was the same gill net that had been sighted the year before.

The *Corio Bay* towed the net into the shallows near Alcan’s mining export wharf. A team of contractors from Alcan coordinated by Scott Chapman, proceeded to drag, pull, push, lift and roll the 68 metre long bundle of net up 250 metres of beach to a semi-trailer. Their perseverance is to be commended as despite the use of machinery, it still took five hours to get the net onto the semi-trailer. The team estimated the net weighed about six metric tonnes!

Whilst the team were pulling the net out of the water, Dhimurru rangers were able to rescue two entangled juvenile Hawksbill turtles. A large hammer-head shark and a smaller reef shark that were also entangled did not survive.

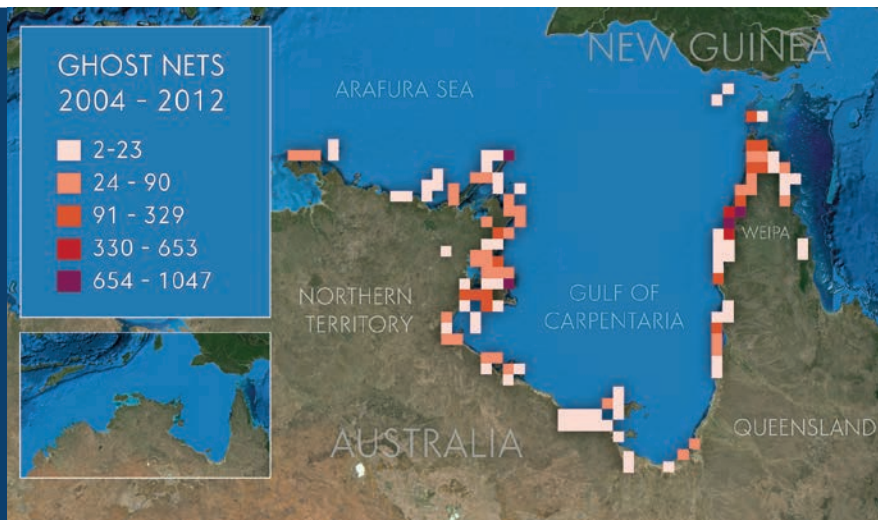
The net was then taken to the Nhulunbuy dump, where it was disposed of free of charge. Scott Chapman echoed the sentiments of all involved, “It was a fantastic and satisfying sight to see the net on the back of the truck after all the hard work that has gone into removing it over the past year.”



## North Australia – a ghost net hotspot

Since the early 1990s increasing amounts of marine debris have been observed on the shores of North Australia from Broom to Cairns. 70-80% are ghost nets. The North Australian coastline, and the Gulf of Carpentaria in particular, is a global hotspot for ghost nets. 90% of these nets originate from the Arafura Sea.

Directly to the north of Australia lie Indonesia and Timor L'este, both poor countries with large populations who depend on the Arafura and Timor seas for fish protein.



The Arafura Sea is one of the most productive fisheries in the world, supporting subsistence and large-scale industrial fishing.

### Currents and gyres

An ocean gyre is a large system of circular ocean currents formed by global wind patterns and forces created by earth's rotation. Gyres help circulate ocean water around the entire planet. Marine debris, including ghost nets also drift in these gyres.

The plastics trapped in these gyres break down to smaller and smaller parts but do not break down entirely. They can be ingested by fish and other sea creatures and enter our food chain.

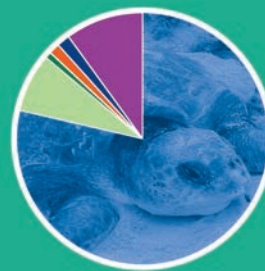
Vast amounts of marine debris collect in the Gulf of Carpentaria, in the north of Australia. Once in the Gulf they are trapped in a gyre, until they are washed ashore during a king tide or storm event.

### For discussion:

1. Where did the six tonne gill net come from? When was it first sighted?
2. What problems did people have getting the net to shore and disposed of? Why? How long did it take them?
3. Why is the north coast of Australia a ghost net hot spot?
4. What is significant about the Gulf of Carpentaria and why is it important that area is kept clear of ghost nets and plastics?

### For further research:

1. The Alcan team estimated the Arafura net weighed 6 tonnes. Research and find out something that would be equivalent to this weight. Calculate how many of these things would be needed to demonstrate 800,000 tonnes.
2. Can you use a map to work out the minimum distance the Thai gill net travelled? What is a nautical mile?
3. There are five key gyres that operate in the world. Can you find out where they are? Do you think they will have similar problems to the Gulf of Carpentaria gyre?



#### FOUND IN GHOST NETS

78.6%	TURTLES
0.8%	DUGONG
7.6%	SHARK
9.9%	FISH
1.5%	SEA SNAKE
1.5%	OTHER ANIMALS

### Animals found entangled

On the northern coasts of Australia, the Gulf of Carpentaria hosts some of the last remaining safe havens for endangered marine species including turtles, dugongs and sawfish. It is also an important breeding and nesting ground for six of the seven marine turtle species.

The ghost nets that are trapped in the Gulf of Carpentaria continue to entangle these vulnerable species. Research suggests that 10,000 turtles have been entangled by ghost nets in the Gulf of Carpentaria.

### Further activities:

- Mark out an area in your school that is 4 x 4 x 11 metres. Make a sign and other things to display inside the area related to the ghost nets problem.
- Prepare for and hold a lunch time debate on *Are we wasting time cleaning up marine debris?*

### Websites to check out:

[www.tangaroablue.org](http://www.tangaroablue.org)

[www.5gyres.org](http://www.5gyres.org)

[www.theoceancleanup.com](http://www.theoceancleanup.com)