GhostNets Australia™

The Net Detective

BY RIKI GUNN

How did I become a net detective? People often ask me that. I used to fish for a living. One day in late 2002 I was chatting with a friend of mine, a Barramundi fisher based in Karumba, when she mentioned a terrible problem with ghost nets throughout the Gulf of Carpentaria. She was really annoyed.

"They're not our nets, we do the right thing. We bring our old nets back to port. I'm sick and tired of people blaming us."

"I know," she continued excitedly, "Riki, now that you are no longer fishing, I bet you could find out who these nets belong to!"

After a stunned silence I hesitantly replied "Yeah. Sure." After all, these nets don't exactly arrive with a senders name and address like a parcel in the post! But as an old sea-dog I knew that the best way to find out where something has drifted *from* is to understand what current they drifted *on*.

So I began my detective work. It didn't take long to understand how big the ghost net issue really was. First I had to find out if the nets were coming from the north west with the monsoons, or east with the trade winds. Then I needed to identify the fishing ports and fisheries in our region, and the types of nets they used so I could try to match ghost nets with their point of origin. If I had the chance, I also wanted to find out how and why the nets were lost or abandoned.

But trying to crack this ghost net case was too big a job for just one detective. I set up GhostNets Australia, an organisation dedicated to helping rangers clean up our marine environment and stop ghost nets at their source. I teamed up with Dr Chris Wilcox from CSIRO. His computer modeling helped us to back-track the ghost nets the rangers had found. A major clue; we found out that 90% of the nets originated from the Arafura Sea. It was time to find out more about these fisheries!

With help from my Indonesian partners, I visited ports in the region. I interviewed people from all parts of the industry; fishers, managers and law enforcement. I documented the types of nets used and asked for samples. More clues to match my data base!

It was time to find out why these nets were being lost, abandoned or discarded. All the Indonesian fishers I spoke to were worried about the huge number of foreigners poaching in their waters.

"I can't fish during the daytime anymore" said Hadi, "Too dangerous, too many boats in the way".

"My nets are getting very brittle" said Edie, "I can't afford new ones as not enough fish for everyone".

"There is less fish to go around, and everyone is taking more risks to catch them. Last week a foreign trawler deliberately ran over my gill net. That net was worth a year's wage!" complained Mahuydin.

But in Benjina the story was different. This port was owned by a Thai fishing company.

"We dump our ripped nets overboard" admitted one of the skippers. When I asked why he curtly replied "Not our net, not our country, not our problem."

Years later I was shocked when it was discovered that the Benjina Company were operating illegally and also crewed their vessels with slaves from Myanmar!

After lots of research and patiently gathering clues, I took my findings to the Indonesian government. We discussed solutions to the ghost net problem, and, best of all, in January 2015 they banned all foreign owned vessels from fishing in their waters. Yay!

Our detective work is not over yet. We will continue to patrol beaches and record data about the ghost nets we clean up. We want to find out if this new ban helps to reduce ghost nets. We hope it will!

Illegal fishing

Illegal fishing is rife in the Arafura Sea. Large industrial trawl and gill net fleets from as far as China, The Republic of Korea and Thailand fish in these waters. The gill net fisheries often use illegal drift nets, some of which exceed the 2km legal net length by up to 10 times. Other illegal gear deployed in this region includes pair trawling (one large trawl net towed between two boats). Pair trawling has been outlawed internationally because it destroys the marine environment in its path.

Additionally, overcrowding of the region drives the fishers to take more risks in order to make a living (e.g. working in bad weather) and cut costs (e.g. not replacing nets often enough).

Research suggests that illegal fishing vessels outnumber legal fishing vessels three to one in the Arafura Sea.

Data collection and analysis

There are many vessels working in the Arafura Sea. Grouping the fisheries based on the nets they use, and the fish they catch, allows GNA to match the fishing activity with the data collected from ghost nets found. GNA found that over 90% of all ghost nets are non-Australian. As of 2014, 65% of Ghosts nets are trawl nets, 28% are gill nets, 5% are purse seine, and 2% are other types of nets.

For discussion:

1. What were the three key things Riki identified that she needed to find out?

2. Who were some of the people who helped her find out clues to these questions?

3. What were some of the problems that local fishers were facing that caused them to loose their nets?

4. What did Riki do with the information she collected?

5. What changes could be made as a result of what Riki has found out?

For further research:

What are the different kinds of nets that are used in commercial fishing and what are their purposes? What does a gill net look like and what is its purpose? What are the advantages and disadvantages of net fishing?

Reducing the ghost net problem

GNA believes that the best way to reduce ghost nets is to work directly with the fishers: helping them to implement fishing practices that minimise damage and loss of nets.

GNA interviewed many fishers to learn why nets are lost, abandoned or discarded. They found that trawl fisheries mostly damage their nets when they become snagged on uncharted reefs, wrecks and other fishing gear. Gill nets can break away from their moorings, or become lost during bad weather events. Nets are also lost when they are driven over by other trawlers (deliberately, or because they are working too close to each other).

How can ghost nets be prevented?

- Create exclusive fishing zones so there is less interaction between different fishing sectors and their gear.

- Ban illegal fishing and limit the numbers of fishers to fit the capacity of the area. This needs to be reinforced with strong surveillance and controls.

- Create an accountability scheme. All nets that go out to sea must be brought back. If a net has been lost or abandoned, the fisher must report it so that retrieval becomes possible.

- Create incentives, education and infrastructure so that fishers are encouraged to take their damaged nets back to port.

- Encourage good fishing practices where gear and nets are handled correctly and effectively.

Further activities:

- *Not our [rubbish], not our country, not our problem.* What things in your community or school are damaged or badly affected because people take on this same attitude? What can you do about that?

- Become detectives about a problem you have identified in your environment. Follow Riki's process – identify the key questions, collect the data needed and then use the information collected to solve the problem and develop recommendations for reducing the problem in the future.

Websites to check out:

www.ghostnets.com.au
www.fao.org/fisheries/en/