Handout sheets for upper primary classes

This set of four handout sheets provides resources to teachers for four lessons that can be developed to introduce and discuss the problems of marine debris and ghost nets in particular, with your upper primary school students.

Suggestions for use

- 1. Have the students work in small groups or pairs.
- 2. Take turns to read the story on the front page of the handout together.
- Circle any words that they are unsure of the meanings. Discuss possible meanings together. Have them look at the context and see if they can work out what each word means.
- 4. Have students confirm their predictions using a dictionary or the internet.
- 5. Read the key story together again.
- 6. Discuss any things in the text of interest to the students.
- 7. In pairs, have the students take turns to ask each other questions that can be answered from the text. See if they can stump their partner.
- 8. Read the questions on the back page of the handouts. Discuss what students now already know about these things.

- 9. Read the fact sections on the back page. Does this add or clarify any key points relating to the questions listed?
- 10. In pairs, have the students discuss the listed questions and craft written answers. Discuss the best answers as a class.
- 11. Choose one of the further activities and do them as a class or in small groups.
- 12. If students have not accessed any of the websites of interest that are listed on the handout sheets, encourage them to do so in their personal study time or at home. There is also a list of sites on the back of this sheet for further research.

Other activities

- Discuss any common word patterns the authors have used. For example entrapped, entangled, endangered. Are there other words students know that they can add to this group (e.g. enmeshed)?
 When should you use entangled rather than tangled, entrapped, rather than trapped? Have students use the words correctly in sentences (orally).
- Break the students into small groups and ask them to discuss the devices the authors used to get their point across? How have they structured their writing so that the reader will be convinced of their argument?
- Take one of the sections from the facts part on the back page and change the information text into a text of a different genre that communicates the same key points.
- Examine the beginnings and endings of the four key texts. Which one has the best sizzling start and the best ending? Why? Choose one of the four texts and rewrite the ending so that it has a more powerful punch.
- Examine the overall design and text choices the authors have made in these handout sheets. What extra devices have they used to get their points across? Think about one of your completed science reports. How could you restructure your report to increase the impact of the facts you are presenting? What devices that the authors have used could you employ in your report writing?

Web Resources

Marine Debris

http://www.tangaroablue.org/resources/education-kit.html

Ocean Gyres

http://www.adrift.org.au

http://education.nationalgeographic.com/education/ encyclopedia/ocean-gyre/

http://www.theoceancleanup.com/

www.5gyres.org

Ecosystem Services

http://biodiversity.europa.eu/topics/ecosystem-services

Plastic

http://plasticpollutioncoalition.org/ http://www.lifewithoutplastic.com

Biodiversity

http://treeday.planetark.org/documents/ doc-378-earth-alive-2012.pdf

Food chains and food webs

http://www.sciencebob.com/questions/q-food_chain_web.php http://www.primaryhomeworkhelp.co.uk/foodchains.htm http://sciencelearn.org.nz/Contexts/Life-in-the-Sea/ Science-Ideas-and-Concepts/Marine-food-webs

Food security

www.foodsecuritynews.com/What-is-food-security.htm http://www.globaleducation.edu.au/

Caring for country

http://www.curriculumsupport.education.nsw.gov.au/primary/hsie/assets/pdf/caring/caringplace.pdf
http://www.environment.gov.au/indigenous/http://www.environment.gov.au/indigenous/workingoncountry/

Healthy country, healthy people

https://www.mja.com.au/journal/2009/190/10/ healthy-country-healthy-people-relationship-betweenindigenous-health-status-and

Indigenous protected areas

http://www.australiangeographic.com.au/topics/ history-culture/2014/06/indigenous-protected-areas http://www.environment.gov.au/indigenous/ipa/ http://en.wikipedia.org/wiki/Indigenous_Protected_Area

Ranger programs

http://www.nlc.org.au/articles/info/ranger-programs1/http://www.tsra.gov.au/the-tsra/programs-and-output/env-mgt-program/land-and-sea-ranger-program http://www.ehp.qld.gov.au/ecosystems/community-role/ranger/http://www.klc.org.au/land-sea/kimberley-ranger-network

These websites belong to other organisations and therefore content and links may change with time. GNA cannot accept responsibility for any loss or damage arising from their use.

About Ghostnets Australia

GhostNets Australia (GNA) was established in 2004, as an alliance of Indigenous communities in north Australia to deal with a growing ghost net issue. It continues to operate in these key areas:

Ranger Support and Training

Since 2004 GNA has resourced and trained indigenous coastal rangers to manage the ghost net issue over 3,000 km of coastline. By 2014, rangers (now independent), had removed over 14,000 ghost nets and rescued almost 300 entangled turtles.

Data Collection and Analysis

Rangers also record important information about the ghost nets which is uploaded to the GNA database for analysis. This information has helped GNA to determine the abundance and distribution of the ghost nets so that on-ground management of the issue is more focused.

Research

In partnership with CSIRO, GNA's research has answered the important questions of 'where from?'; 'why are these nets lost, abandoned or discarded?, and most importantly 'who is responsible?'. With these questions answered work can start on finding solutions to the problem.

Awareness

GNA promotes awareness of the ghost net issue through workshops, forums and other public events, including the successful Ghost Net Art Project.

Ghost Net Art Project

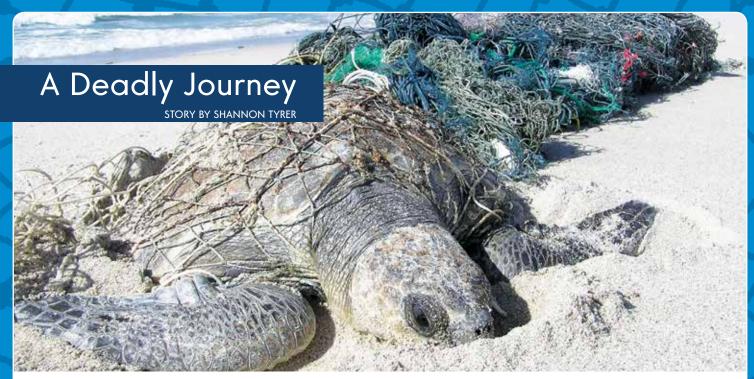
The Ghost Net Art Project, (now independent), was a GNA initiative. Community members reuse ghost nets to create beautiful art, which can be found in galleries and museums, and more recently on a stamp! This new art genre is being used to spread the word about ghost nets.

The Future

Having ensured that ongoing management of the issue at a local level continues, GNA is now working with fishers, international governments and communities on ways to reduce the problem of ghost nets on a global scale.



Ghostnets Australia**



An Indonesian trawl fishing boat is a fleck on the horizon in the Arafura Sea. Wayan looks out from the wheelhouse toward home. It has been months since he's seen the shy smile of his new wife. Unfortunately with the increasing number of poaching vessels, Wayan isn't surprised that the fish have been scarce and he fears he'll have to return all but empty handed.

He decides to take one last risk and navigates skilfully through the choppy water. This area is well known for plentiful shrimp, but is also notorious for sharp coral. Even on the stillest of days precious fishing nets can get ensnared and lost to the sea.

The torn fishing net moves listlessly through the water expanding and contracting with the tug of the ocean. Ripped from its fishing vessel it has floated for weeks and is now littered with debris. The net is relentless, capturing marine life over and over in its voluminous body. Fish struggle to free themselves, gaining the attention of nearby sharks. There is prey to eat.

As the monsoon weather builds, the currents take the net south-east towards northern Australia leaving a trail of death in its wake. The net reaches the shallows on western shores in Cape York. Aside from some stubborn seaweed, evidence of the deadly journey has been washed away.

An Olive Ridley turtle feeds in the shallows, oblivious of the expanse of net stretching past. The fibres brush against his flipper and as he backs away they catch his claw. He panics, and trying to free himself he tosses his big body about until he is entirely ensnared.

The tide brings the net to shore. The long stretch of beach is uninhabited. As the waves crash over the entrapped turtle, it's breath begins to labour.

A troupie makes its way along the hard sand. Genan, bounces along in the passenger seat, keeping an eye out for any quarantine hazards that wash shore. The local Indigenous rangers have already collected pieces of driftwood that might be home to borers, whose insatiable appetite could devastate the Australian native forests.

Didj's eyesight is remarkable and he spots the fishing net and entrapped turtle from 100 meters away. "Ghost net" he says, lifting his finger for the other rangers to follow. Pulling over, they gently disentangle the turtle, which makes only an exhausted protest. Whilst the other two rangers carefully lift the 45 kg turtle into the troupie, Didj gathers up the ghost net so it doesn't wash back out to sea and waits for the others to load it up. He tests the green fibres in his fingers; this bit of net is just what Auntie's been looking for he thinks.

Before delivering the ghost net to Auntie, Didj helps to unload the turtle at the triage station in the nearby community. "You're in good hands mate", he says to the turtle before heading on his way.

Didj was right, Auntie is ecstatic and before too long Auntie's expert fingers have twisted, coiled and woven the ghost net into the shape of a proud bush turkey.

The woven bush turkey sits with his chest puffed out proudly on a stall at the Cairns Indigenous Art Fair; it's been quite a journey.

What is a ghost net? Ghost nets are fishing nets that have been lost at sea. They are called ghost nets because they continue to drift round the ocean with the currents and tides, continuing to catch marine life even though they are no longer being used.

Why nets?

Most of the fish we eat is not caught on a fishing line (pole fishing) but caught by nets in the ocean. Fishing vessels range in size. The bigger the boat, the bigger the net. Some nets weigh hundreds of kilograms.

Fishing vessels operate in the ocean far away from shore in difficult environmental and climatic conditions. Due to bad weather or strong currents their nets can be lost or damaged. Once a net is lost overboard, it can be very difficult to retrieve it. Sometimes damaged nets are deliberately discarded at sea to avoid spending time and money on proper disposal.

For discussion:

- 1. A Deadly Journey tells us about part of the journey of one ghost net. How far did it travel and why did it end up in Australia?
- 2. Why is ghost nets a good name for these fishing nets that are floating round the oceans still entrapping sea creatures and fish?
- 3. What do you think a troupie is and how large would it be? What is this one used for and who is on it?
- 4. What are the problems that ghost nets might cause?
- 5. What ranger work is mentioned in this story?

It is estimated that worldwide, 800,000 metric tonnes of ghost nets find their way into the marine environment every year.

Fibres or plastic?

Traditional nets were made using natural fibres such as hemp, cotton and jute. Today most of the nets are made out of plastic. Plastic nets have made the ghost net issue worse for two main reasons.

- Plastic is cheap compared to traditional fibres.
 This makes plastic nets more economical to replace and therefore a more 'disposable' net option.
- 2. Plastic nets are more durable and buoyant than nets made from traditional fibres. They have the potential to drift around the world for *up to 600 years*.

Net Art

Recycling nets in Australia is currently not possible but there is a big community of artists who call themselves *The Ghost Net Art Project*, who are making wonderful creations using ghost nets, like this bush turkey made by Zoe De Jersey.



Further activities:

- Make a board game. You're a fisher who needs to bring in a big catch.
 Various hurdles such as ghost nets get in your way.
- Fishing with very large nets threatens food sources for poor fisher people. What threatens your food sources? Make a list.

Websites to check out:

http://plasticpollutioncoalition.org http://www.lifewithoutplastic.com

Ghostnets Australia**



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!

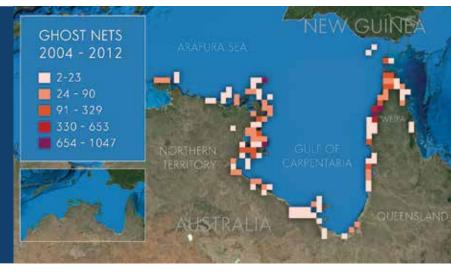
Whilst the team were pulling the net out of the water,
Dhimmurru rangers were able to rescue two entangled
juvenile Hawksbill turtles. A large hammer-head
shark and a smaller reef shark that were also
entangled did not survive.

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:

- 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?



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 www.5gyres.org www.theoceancleanup.com

Ghostnets Australia[™]



In January 2009 Napranum rangers Peter Harper and Angela Christie prepared for another patrol of the 42km Pennefather Beach, west of Weipa. Working in monsoonal weather conditions, the rangers had already rescued a total of 63 turtles from ghost nets that month.

Most of the turtles were released back into the ocean straight away but unfortunately that day, two Olive Ridley turtles had to be put into the quad bike trailer and transported to the triage facility the rangers had

set up on the beach. One was in a particularly terrible condition; the

rangers named her Jewel. The other one they called Princess.
Jewel's right flipper had been worn down to the bone and her left flipper had two broken bones.
One of Princess' flippers was almost amputated.

Once at the triage station the turtles were cleaned and their wounds treated with antibiotic spray. Photos were taken and all measurements and observations noted. The turtles were then placed into a fresh water bath for 10 hours to kill all salt water bacteria.

Next the rangers placed the turtles in a clean salt water tank and tried to feed them with squid the rangers had caught. The turtles were checked to see how well they could swim and whether they could get to the bottom of the tank. (This test helps to determine the full nature of the turtle's injuries.)

The tanks were cleaned daily and the salt water was replaced. While the tanks were filling, rangers would clean the wounds on the turtles and treat them with antibiotic spray. When the spray had dried, the turtles were put back into clean tanks and the rangers would attempt to feed them again.

After a few days rangers could see that Jewel and Princess were not getting any better. If the turtles were going to survive, they would need professional help. The decision was made to send Jewel and Princess to the Cairns Turtle Rehabilitation Centre for further treatment.

After many months of intensive care both Jewel and Princess made full recoveries and were ready for release! They were flown back to Weipia and returned to the ocean at Pennefather Beach, each fitted with a short-term satellite tracking system to gauge the success of their recovery. These were the first turtles to pioneer this type of research. Princess swam over 1900km in 132 days, demonstrating just how successful her treatment had been, while Jewel swam a more sedate 1790km in 138 days.

GhostNets Australia continued to track Jewel and Princess around our northern oceans for a year, until the trackers fell off the turtles as planned. (The trackers were attached to the turtle's shells with a special glue, designed to wear away slowly.)

Let's hope these two special turtles can avoid entangling ghost nets for the next 50 years!



For coastal Australian indigenous communities, turtles and dugongs are a traditional

a traditional source of food and an integral part of their belief systems and culture.

Indigenous rangers

Rangers in Northern Australia are responsible for the day-to-day management of their country, including reducing threats from feral pigs and weeds, maintaining sacred sites, fire management and monitoring endangered and threatened species such as turtles.

Ghost Nets Australia (GNA) has provided training and resources to 32 ranger groups. They have supplied vehicles that were able to tow nets out of the sand, winches, measuring equipment and tools for digital data collection. Rangers collect data, clean up nets and rescue entangled wildlife.



Caring for country

Australia's Indigenous people have a special relationship to land and sea that incorporates both a cultural and spiritual tie. These relationships are fundamental to the social and economic wellbeing of indigenous communities. Indigenous people believe it is their responsibility to caretake the land for future generations. This concept is often called 'caring for country'.



Removing nets is important

The removal of ghost nets is important as it prevents them from returning to the ocean and continuing their destructive cycle. It is not easy work. Many of the nets are found buried in sand, are very heavy and are in remote and inaccessible locations. Some nets are so large they do not get washed ashore but scrape the bottom of the ocean kilometres off the coast. These nets require huge assets such as navy vessels to remove them, which is a very costly and time consuming activity.

For discussion:

- 1. If we know that Peter and Angela rescued 63 turtles in January 2009, is it possible to predict how many turtles they might rescue in a year? What would be your prediction? What things might influence the number of turtles trapped in ghost nets each month?
- 2. What is a triage station? What does the word triage mean and what other words might it be related to? Can you think of other places that might have or need a triage station?
- 3. Once Jewel and Princess were released, how many kilometres a day did each one swim? Would the difference in their distances be significant enough to say one turtle is doing better than the other? What might have contributed to the differences in the distances?
- **4**. Why do you think GNA used a short-term tracking device on Princess and Jewel?

Further activities:

- Make a chart diagramming the process used at the turtle triage station. Indicate the reason for each different stage.
- Research why it is important for a turtle to be able to go to the bottom of the water tank.

Websites to check out:

www.ghostnets.com.au/ranger-activites www.capeyorknrm.com.au/

Ghostnets Austrolio**



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/