



Tangaroa Blue Foundation

MARINE DEBRIS IDENTIFICATION MANUAL

Proudly supported by:





Cape York Clean-up crew 2020

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Introduction

Welcome to the 6th edition of the Tangaroa Blue Foundation Marine Debris Identification Manual.

During 2021 the total number of marine debris items recorded in the Australian Marine Debris Database sailed past 19 million. That amounts to a huge effort from you and an important achievement in providing ongoing data for addressing the marine debris problem. Growing volumes of data bring the opportunity and need for re-appraisal and change. You will find this manual and our upgraded Data Collection Sheet have changed in their organisation and emphasis.

First we have unpacked several categories to enable greater details to be captured at an individual item level in response to changes in government policy and plans. This extra level of detail will enable us to effectively monitor and provide feedback on the impact of these strategies, such as the single-use plastic ban and beverage container return schemes.

Secondly, we have further expanded the types of locations that the AMDI Database can accept data from including beach, estuary, stormwater trap, underwater and public space locations. This expansion is a result of requests from both partner organisations and government/research enquiries into understanding the path that litter can take from an on ground setting to the open ocean.

During 2021, Tangaroa Blue Foundation will be finalising monitoring protocols for each of these different types of locations, to assist AMDI partners and volunteers in submitting data from monitoring projects in addition to the community clean-up data that is currently being submitted. These protocols will be available in dedicated resources on the Tangaroa Blue Foundation website.

Once finalised, these monitoring protocols will be part of the much anticipated update to both the AMDI Database website portal and data collection app.

We would like to thank all our volunteers and partners who have supported Tangaroa Blue Foundation and The Australian Marine Debris Initiative!

Protect Our Oceans!

Using the Manual & Data Collection Sheet

The items included in each item class will generally be composed of the same material, have similar physical form, perform a similar function and usually be in a similar size range.

To find an item in the manual follow these steps:

- Select the material section the item is likely to fall under,
- Look up the item and its examples list in the index at the start of each material section, and
- Go to the page number and find the image.


Please note that the images may not cover the complete list of items in an item class. If you're not sure simply make an entry in the additional items section of the Data Collection Sheet describing it as best you can. If you would like help in identifying an item send us an image and/or sample with your Data Collection Sheet.

The Data Collection Sheet has a note and tally section where you can record extra information about items such as unusual encrustation, barcodes or if the item is from an international source, whether the total number of an item was estimated and any other information you think may be of use.

The additional items section also has a notes section where you can enter the above details and also details about large items or dangerous and hazardous items. Please also make a note here of any item you are unsure about and what kind of material it is composed of.

If you come across large items or dangerous and hazardous items send us an image and accurate location including nearest town, road and if possible a GPS coordinate. Please also report these to the local ranger, local government or land manager.

Recording Information on Monitored Items

The Australian Marine Debris Database records details such as label information, serial numbers and measurements for monitoring purposes. These items are indicated by this icon  throughout the manual. Recording this information is optional but we encourage you to take this extra step. The Additional Information Sheet is found at the back of this manual.

Chemical light stick / glow stick

Chemical light stick / glow stick type identification numbers can be found in the “Plastic Items - Fishing” section. Record how many of each type of Chemical light stick / glow stick you find in the notes column next to your Chemical light stick / glow stick entry in the Data Collection Sheet or on the Additional Information Sheet.

Strapping bands

Additional information that can be collected and included in the Additional Information Sheet for this item includes the colour, width, length, whether the band is cut or uncut and any writing on the band.

Tags

Information recorded about tags include what material they are made from, colour and all writing and numbers. Tags come under additional items so include this information next to your tags entry in the note column of your Data Collection Sheet.

Foam buoys

This especially applies to the west and south coasts of Australia. Foam floats often have an identification number stamped on them. Record this in the notes column next to your foam buoys entry.

Foreign sourced objects

When you find an item with a label indicating an overseas origin and can decipher some or all the following details, record them on the Additional Information Sheet. Include the type of item, country of origin, brand name, product name and barcode.



Waterbottle - China



Aluminium can - China



Waterbottle - China

Plastic resin pellets

These are pictured in the “Plastic Items - Industrial, Commercial, Shipping & Miscellaneous” section. If you observe pellets during your clean-up record a ‘yes’ in the additional information section at the end of the Data Collection Sheet and whether found in low, moderate or high numbers.



AQUA Waterbottle - Indonesia



Glass bottle - China



Aerosol can - Indonesia

Unusual beach conditions

If you notice out of the ordinary erosion or exceptional swell conditions make a brief note in the additional information section.



VIT Waterbottle - Indonesia



Waterbottle - China



Waterbottle - China

Wildlife

Also enter any sightings of dead or injured animals or birds in the additional information section. Report injured wildlife to your local ranger, land manager or in the case of seabirds and an available local group - Australian Seabird Rescue. <http://www.seabirdrescue.org>

Sorting & Counting Marine Debris

Equipment you may need for sorting and counting

- Small tarp – especially if you are counting the debris at the clean-up location.
- Tape measure – for measuring items such as rope and plastic strapping bands.
- ID Manual and Data Collection Sheet.
- Digital camera – if available - to record an image of the debris once sorted.
- Marker pen and paper. The site name can be written on the paper and placed with the debris for identification of the site in the photo.



Where to sort and count?

If possible you need to be out of the wind so that items such as food wrappers and paper don't blow away. If you sort and count on the beach make sure you have an appropriate disposal strategy. If you take the debris home to sort and count, write the site name and date on the bags and tie the tops. If you don't count straight away store the bags where children and pets cannot get to them.

Weighing the bags of debris

A set of fish weighing scales or old kitchen scales are ideal for this job. If no weighing devices are available just estimate the weight.

Sorting & Counting Marine Debris

Sorting and counting

- Weigh the bags and record the weight.
- Empty the bags carefully, especially if there are glass items. If possible empty the bags into a large drum, wheelbarrow or on a tarp. This contains the rubbish and is easier to work from.
- Sort the beach debris into piles of the same material (e.g. plastics, metal, glass etc) and then further sort the easily identified items within these piles (e.g. bottles, bags, containers etc). Begin counting and recording the easily identified items and work through to the harder ones. There is a space on the Data Collection Sheet to place tally marks and/or a note about the item/s. Notes are only required if you think an item is very unusual, in unusually high numbers or represents a significant hazard. Once you're down to the items not listed on the Data Collection Sheet, enter these additional items in the additional item section, making a note of the main material they are made from.
- Count one group at a time and remove the items to the disposal pile as you go.
- Measure rope, fishing line and fishing net over 1 metre in length and record the total number of metres for all items of each type.
- Counting remnant items. A remnant item is any marine debris item in the process of breaking down into smaller pieces. If the item is more than fifty percent intact then count it as an item. Less than fifty percent is counted as a remnant. The downward limit in size of remnant items is 5mm. Anything smaller than this falls into the micro plastic category and requires a different data collection approach. Pieces of hard and solid plastic, soft film plastic like pieces of plastic bag, burnt plastic and broken glass are the most common remnants recorded.

Sorting & Counting Marine Debris

Estimating large numbers of items

Estimate large numbers of plastic bits and pieces and plastic film remnants by following the steps.

1. Separate out all the larger pieces and count them.
2. Divide the remaining smaller pieces into a number of equal sized blocks or piles and count one of those piles.
3. Multiply the result from step 2 by the total number of blocks or piles to give the estimated total of the smaller pieces.
4. Add the totals from steps 1 and 3 and record it on the Data Collection Sheet together with a note indicating the total is estimated.



Step 1



Step 2



Step 3

Rope & Net Scraps

All rope and net less than 1 metre in length is recorded as single items under rope and net scrap. When you have large amounts, estimate as best you can but do not spend excessive time on it.

Estimating the length of rope

When larger amounts of rope over 1 metre are found use the following guides for estimation.

Rope untangled - lay out the rope and pace out the length (1 pace = 1 metre).

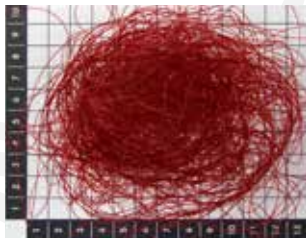
Rope tangled - estimate as best you can but do not spend excessive time on it.

Estimating when a large number of bags are filled

The best data is generated when all the debris you collect is counted and recorded. However, we also understand the logistical challenges in counting large amounts of beach debris. If you run into time or volunteer availability difficulties when it comes to counting the debris please count as many bags as possible. If you can't count straight after the clean-up someone may be able to take some bags home and count them in the following week or so.

If you only count a percentage of the bags collected, make a note on the Data Collection Sheet of the total number of bags collected and their total weight, as well as the total number of bags counted and their total weight. E.g. 50 bags weighing 320kg were collected and out of these 10 bags weighing 35kg were counted and recorded on the Data Collection Sheet.

Estimating lengths of fishing line



50 metres of line
(6gm - 9cm x 9cm ball)



100 metres of line
(12gm - 11cm x 14cm ball)



200 metres of line (24gm - 12cm x 19cm ball)



500 metres of line (60gm - 14cm x 28cm ball)



1000 metres of line (120gm - 22cm x 30cm ball)

Please Note: photo samples are not to scale



Discarded fishing line & nets can kill marine life

Safe Handling & Disposal of Marine Debris

Disposal of debris

- Most non recyclable debris in small quantities, can be disposed of in the rubbish bin however there are some important points to consider when disposing of debris.
- To check what can be recycled in your area, contact your local government authority. When placing items in the recycling system make sure they are relatively clean, uncontaminated and not encrusted with barnacles.
- If you find you need to dispose of a large quantity of debris your local government authority may be prepared to assist, but try and contact them prior to the event to ensure enough time for arrangements to be made.
- Dispose of hazardous items in accordance with local regulations.



Hazardous Materials

Broken glass and light bulbs - securely wrap or enclose before disposal.

Fluorescent light tubes - contain mercury – contact your local government authority for advice on disposal.

Chemical light stick / glow stick - contain a mix of toxic chemicals – contact your local government authority for advice on disposal.

Containers with oil, flammable material or paint - contact your local government authority for advice on disposal.

Syringes or other sharps objects - Handle syringes only if you are trained to do so. When handling syringes, ensure you are wearing protective gloves/using tongs and do not touch the needle or try to break or bend it. Bring the sharps container to the syringe location (do not use bottles, bags or buckets). Open the sharps container and sit it down in a secure position. Do not hold the container when placing the syringe into the container. This prevents accidentally piercing your hand. Close the lid and contact local authorities for advice on appropriate disposal.

If you are unsure of the hazard potential of any container leave it on the beach. Move it away from the high tide mark and inform the local authorities. See the section on Dangerous and Very Hazardous Items on page 80.

Fishing line - to minimise the risk of entanglement at the landfill site, place in a secure bag or container before disposal. Do not attempt to melt or incinerate fishing line or any other plastic item as toxic chemicals including dioxins are released in the heating and burning process.

How to Run a Clean-up Event

1. Pick your beach clean-up site and run a risk assessment to make sure there are no hidden hazards to your volunteers (see page 16).
2. Promote your event with local media and other partners.
Think about organising a BBQ/picnic for after the clean-up to thank your volunteers.
3. The day before the event, run another risk assessment to make sure no new hazards are at the site. Ensure that you have an appropriate First Aid Kit and mobile phone available.
4. We recommend having someone trained in First Aid available during the clean-up.
5. Hold a safety briefing for all volunteers covering the following points, plus any local information required to keep volunteers safe during the event. Ensure that volunteer insurance is organised and appropriate paperwork has been completed. Volunteers under the age of 18 should be accompanied by an adult.
6. Delegate clean-up areas to the volunteers informing them of any hazards, time frames or other additional information. Distribute clean-up materials to volunteers. Ensure that volunteers work in pairs or groups, but not alone.
7. Ensure that all volunteers have appropriate safety equipment including gloves, shoes, sunscreen, drinking water, sunglasses and eye protection and appropriate clothing etc. Ensure there is hand washing facilities or antiseptic hand wipes available for volunteers.
8. Ensure that there is at least one volunteer who knows how to handle syringes (see page 13).
9. If you find abandoned cars, weapons or suspicious items, contact the local police immediately.
10. Let volunteers know what to collect i.e. all man-made materials during their clean-up.

11. Volunteers may work in teams recording the items on the Data Collection Sheet as they put the debris items into bags. One volunteer can make a tally on the Data Collection Sheet as other members pick the debris up.
12. If data was not written down as the debris was removed from the beach. Empty all the bags onto a tarp and sort into the item groups to then complete the Data Collection Sheet. Separate materials that can be recycled and dispose of appropriately.
13. Fill in the Data Collection Sheet and return to info@tangaroablue.org or post to Tangaroa Blue Foundation, PO Box 1235, Dunsborough, WA 6281 or email to data@tangaroablue.org for inclusion in the Australian Marine Debris Database along with any photos, reports and media coverage.
14. Any unlisted items can be written under the “Additional Items” section of the Data Collection Sheet and any item that can’t be identified can be photographed and submitted with the Data Collection Sheet.
15. Make sure you have a plan on how to get rid of the rubbish, contact the local government authority.
If you need assistance contact Tangaroa Blue Foundation.
16. Please be environmentally sensitive – some clean-up sites may include nesting areas for endangered birds – please keep clear of these areas. Contact The Department of Environment for further information.
17. Please be culturally sensitive - some clean-up sites have aboriginal historical value – please keep clear of these areas. Contact the local Department of Indigenous Affairs for further information.
18. Please contact your local government authority or Tangaroa Blue Foundation if you have any questions.

Site Safety Inspection

When planning your clean-up you should take reasonable steps to avoid or minimise any potential risks – carry out a site inspection before your clean-up event. To ensure the safety of all participants, here is an example of a safety site inspection checklist.

Potential risk

Are there holes, fallen branches or other trip hazards?	YES / NO
Are there overhanging dead branches or coconuts that could be dislodged?	YES / NO
Is the area thickly vegetated; could volunteers become lost?	YES / NO
Are there likely to be snakes, spiders, bees, wasps, ticks, bull ants, crocodiles or jellyfish?	YES / NO
Is there a bushfire risk?	YES / NO
Is there deep, murky or moving water nearby?	YES / NO
Will the site be affected by tidal water?	YES / NO
Could volunteers be exposed to contaminated substances / sewage?	YES / NO
Are there likely to be discarded syringes at the site?	YES / NO
Will vehicles be passing in close proximity?	YES / NO
Could asthmatics be exposed to dust or pollen?	YES / NO
Could volunteers be exposed to asbestos in old buildings or building material?	YES / NO

Potential risk (continued)

Is the site isolated or remote from emergency assistance?	YES / NO
Will volunteers be working in direct sun?	YES / NO
Could volunteers experience temperatures that could cause heat stress?	YES / NO
Will volunteers be exposed to frost, cold winds or rains?	YES / NO
Is there a chance that electrical storms (thunder/lightning) could occur?	YES / NO
Will there be a large number of children volunteering?	YES / NO
Will there be several volunteers that are physically or intellectually disabled?	YES / NO
Will there be several volunteers who do not speak English?	YES / NO
Will there be several volunteers with challenging behaviours?	YES / NO
Will members of the public visit or pass through the site while work is occurring?	YES / NO
Will members of the public visit the site before the rubbish is removed?	YES / NO
Are there any current COVID-19 requirements that you need to consider?	YES / NO

If you have answered 'YES' to any of the above questions ensure that you also identify risk controls and incorporate these into your safety briefing. You can approach your local government authority in planning to control these risks. You will also need to conduct another survey the day before the clean-up to ensure there have been no changes to the site conditions.

Quarantine Issues

Biosecurity risk material washing up on our shores

The The Department of Agriculture, Water and the Environment and Tangaroa Blue Foundation are working together to minimise the risk of exotic pests and diseases entering and establishing in Australia that could harm our natural environment, food security and economy.

One of the objectives of the The Department of Agriculture, Water and the Environment is to manage identified risks posed by incoming vessels, aircraft, cargo and passengers across Australia. This includes a surveillance team committed to coastal areas in northern Australia.

Biosecurity risk material can wash up on our shores through human-assisted activities such as foreign vessel movements or through natural pathways such as bird migrations, air and ocean currents.

Your contribution in looking out for and reporting biosecurity risk material on beach clean-up days will help facilitate practical solutions and inform education campaigns with relevant industry sectors to reduce marine debris from entering our oceans.

For more information about the The Department of Agriculture, Water and the Environment , check the website:

<http://www.agriculture.gov.au>



Some examples of biosecurity risk material

- International ship's waste, particularly food waste - look for markings or wrapping in foreign languages.
- Evidence of landings or debris relating to foreign vessel activity e.g. marine timber debris that may contain exotic borers or termites.
- Mass bird mortalities, which may indicate the presence of exotic disease.
- Evidence of animals that may have arrived from overseas which, from your experience, are not native or endemic to the local area.

What to do if you encounter any of the mentioned items

1. If possible, take a photograph and record the GPS position to help with identification of the risk material.
2. If you suspect exotic diseases or pests are present, DO NOT move the debris or other materials.
3. Notify the The Department of Agriculture, Water and the Environment :
 - a. See-Secure-Report free call 1800 798 636, or
 - b. Email - SeeSecureReport@agriculture.gov.au. Provide a contact name, telephone number, a brief description and location of the item(s).

Please note: this email account is only monitored during business hours. For urgent detections, phone the See-Secure-Report hotline directly.

Thank you for keeping watch for exotic pests, weeds and diseases!

Australian Maritime Safety Authority (AMSA)

Reporting discharge of garbage from ships

The Australian Maritime Safety Authority (AMSA) is the national maritime agency whose responsibilities include protecting the marine environment from pollution from ships, including garbage.

There are laws in Australia which restrict the discharge into the sea of all kinds of garbage, from vessels of all sizes. Certain requirements also exist around discharge of oil, noxious liquid substances, harmful substances carried in packaged form, sewage and air pollution. All vessels need to understand these requirements which apply in all marine waters. The AMSA web site, below, provides more detail on what can be discharged and under what circumstances and also provides guidance on ways to reduce the amount of garbage generated onboard.

Garbage which cannot be discharged from vessels

- Domestic waste
- Operational waste
- Incinerator ashes
- All plastics
- Cigarette butts
- Wood
- Cooking oil
- Paper products including cardboard
- Crockery
- Dunnage
- Lining and packing materials
- Rags
- Metal
- Glass
- Aluminium tins
- Fishing gear (line, nets, traps, floats etc.)

Garbage which can be discharged from vessels in certain circumstances

- Cargo residues
- Deck sweepings
- Food waste (ground)

AMSA and Tangaroa Blue Foundation are working together to combat marine debris by promoting community awareness of marine pollution from vessels and related shipping regulations, and identifying types of marine debris, possible sources and overall trends.

What to do if you see a vessel discharging garbage into the ocean

If you see a vessel discharging prohibited items outlined in the list above, you can help by reporting this to local authorities or to AMSA. Any information you can collect is useful for further investigation and possible prosecution of the polluters, including:

- vessel's name or number;
- the time, date and GPS location of the discharge;
- a description of the type of garbage discharged, including quantity;
- other witnesses or ships in the vicinity;
- photographs or videos of the pollution, the ship or person involved; and
- the actual garbage discharged.

Reports can be made to AMSA's Joint Rescue Coordination Centre (JRCC) in Canberra at any time:

Within Australia: 1800 641 792 (freecall)

Outside Australia: +61 2 6230 6811

You can also submit a Pollution Report at

www.amsa.gov.au/environment/reporting-ship-sourced-pollution/.

AMSA investigates reports of illegal garbage discharges, and penalties can apply to a vessel's owner and the master if the claims are proven. A vessel might also face costly time in detention at an Australian port while investigations occur.



Australian
BORDER FORCE

Border Watch

The Australian Border Force protects Australia. Our officers work to prevent dangerous items like illicit drugs and firearms from crossing our border, and to stop visa fraud and the trafficking and exploitation of foreign workers.

Sometimes, threats can be detected within our border. So if you see something suspicious—or something that just doesn't feel right—flag it anonymously with Border Watch and help the Australian Border Force keep our community safe.

Information provided to Border Watch by members of the community and industry has been instrumental in hundreds of seizures of illicit drugs and weapons. This information has also supported investigations related to illegal work operations and the exploitation of foreign workers.

If you see something suspicious that might be a customs, border protection, visa or immigration offence, flag it with Border Watch at abf.gov.au/borderwatch. Even the smallest piece of information could be useful. You don't have to give your name.

Customs and border protection offences include:

- importing illicit or performance enhancing drugs
- importing firearms or other weapons
- people smuggling or human trafficking
- wildlife smuggling
- illegal foreign fishing
- importing illegal pornography and child abuse images
- importing counterfeit goods.

What to flag

- Yachts and pleasure craft in remote or unusual locations
- Unusual activity on beaches, remote areas or at sea
- Evidence of interference with wildlife, flora or fauna
- Unusual aircraft movements or unusual use of airstrips
- Aircraft or vessel loading or unloading goods in unusual locations
- Someone attempting to take delivery of goods at odd hours of the day
- Someone giving a strange location for delivery or pick up of goods/packages

Visa and immigration offences include:

- trafficking and exploiting foreign workers
- breaching visa conditions
- travelling to, or residing in Australia, in order to work unlawfully
- committing identity fraud, entering a fake marriage or relationship, providing fraudulent documents, or lying to obtain a visa
- providing immigration advice without being a Registered Migration Agent.

What to flag

- Agricultural businesses offering financial and other incentives to people travelling on tourist visas
- Someone using an obvious fictitious or generic name or trying to conceal their identity
- Someone offering incentives to businesses to sponsor their stay in Australia
- Someone entering into a relationship with an Australian citizen to support a visa application
- Foreign workers receiving cash payments from businesses
- Foreign workers claiming to be underpaid or mistreated.



If It Doesn't Feel Right

Flag It

Flag it anonymously
australia.gov.au/borderwatch



BORDER WATCH

Plastic Items - Consumer

Item Name	Examples	Page
Cigarettes butts & filters	Cigarette butts, filters, cigar tips	26
Cigarette lighters	Cigarette lighters	26
Pens, markers & other plastic stationary	Pens, markers, sharpeners, folders	26
Straws, confection sticks, cups, plates & cutlery	Plastic knives, forks, spoons, straws, confection sticks, stirrers, cups & plates	26
Toothbrushes, brushes & combs, hair ties	Toothbrushes, inhalers, mosquito wrist bands, brushes & combs, hair ties	27
Toys, party poppers, ribbons, clips and similar	Takeaway food & drink toys, party poppers, plastic toys, beach toys, balloon clips, balloon ribbons, plastic toys, fire crackers, green tops & firework casing	27

Additional Plastic Items - Consumer

Item Name	Examples	Page
Childcare items	Dummies, baby carriers, baby bottles	27
Drug paraphernalia	Bongs made from soft drink bottles, smoking pipes	27
Fibreglass fragments	Pieces of surfboard, fibreglass boat	27
Plastic ceremonial & festive	Flowers, wreaths & decorations event wrist band	27
Plastic first aid materials & equipment	Band aid, bandages	28
Plastic furniture outdoor & camping	Plastic chairs, tables & similar	28
Plastic gardening items, implements & fittings	Hoses & fittings, rakes, plant pots	28
Plastic house wares & tablewares, house fittings	Pegs, clothes hangers, sponges, dustpans, salt & pepper shakers, plastic brooms	28
Recreation & outdoor equipment	Swim gear, backpacks, tents, torches, watersports equipment	28



Cigarette butts & filters



Cigarette butts & filters



Cigarette lighters



Pens, markers & other plastic stationary



Straws, confection sticks, cups,
plates & cutlery



Toothbrushes, brushes & combs, hair ties



Toys, party poppers, ribbon, clips & similar



Childcare items



Drug paraphernalia



Fibreglass fragments



Plastic ceremonial & festive decorations



Plastic first aid materials & equipment



Plastic gardening items, implements & fittings



Plastic house wares, tablewares & house fittings



Plastic furniture outdoor & camping



Recreation & outdoor equipment



Tonnes of rubbish litter our coastline each year

Plastic Items - Packaging

Item Name	Examples	Page
Bleach & cleaner bottles	Bleach, toilet cleaner, washing up liquid	32
Lids, tops, pump spray, flow restrictor	Plastic lids, caps, flow restrictors, pump spray mechanisms, corks, champagne stoppers	32
Personal care & pharmaceutical packaging	Skincare, cosmetics, sunscreen, lip balm, shampoo, deodorant, roll on insect repellent, lipstick, plastic medicine bottles, supplement treatments & eye drops	32
Plastic bags	Supermarket, garbage, dog poo bags, ice bags, bin liners, product bags, reusable shopping bags	32
Plastic containers non-food	Oil lube, herbicide, methylated spirits, kerosene, grease, silicone, butyl rubber, gap filler	32
Plastic drink bottles	Water, aerated waters, juice, milk, soft drinks	32
Plastic packaging food	Food wrap, snack packets, film wrap, confection wrappers, tubs, takeaway containers, food cups	33
Plastic wrap non-food	Bubble wrap, product wrapping, plastic stickers & labels, plastic cigarette packaging	33



Item Name	Examples	Page
Strapping band scraps	Bits & pieces of strapping bands	33
Strapping band whole	Identifiably whole plastic strapping bands, bait box straps, packing strap (record as single item)	33

Additional Plastic Items - Packaging

Bleach bottle KKK type	Bleach bottles KKK type	33
Mesh bags	Poly-net fruit & vegetable bags, oyster & mussel bags	34
Packaging accessories	Reels, spools, handles, drum seals, drum taps	34
Plastic bottles, drums, jerry cans & buckets over 4 litres	20 litre drums, plastic buckets, water containers, plastic jerry cans, plastic bins, large bin and drum lids	34
Plastic drink package rings	Plastic six pack rings from beverage packaging	34
Plastic sheeting	Builder's plastic, tarps, shade cloth, polyweave bags, feed & fertiliser bags, cargo bales, wool sacks	34
Synthetic cardboard signs & packaging	Signs, sheeting, packaging, boxes, corflute	34



Bleach & cleaner bottles



Lids, tops, pump spray, flow restrictor



Personal care & pharmaceutical packaging



Plastic bags



Plastic containers non food



Plastic drink bottles



Plastic packaging food



Plastic wrap non-food



Strapping band whole (👁)



Strapping band scraps



Bleach bottle KKK type



KKK bleach bottle marking



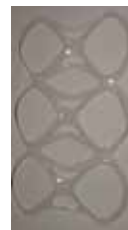
Bottles, drums, jerry cans & buckets over 4 litres



Mesh bags



Packaging accessories



Plastic drink pack rings



Plastic sheeting




Synthetic cardboard signs & packaging



Plastic bags can look like jellyfish to a turtle

Plastic Items - Fishing

Item Name	Examples	Page
Bait & tackle bags & packaging	Bait bags & tubs, tackle bags, plastic fish oil bottles	38
Bait containers & lids, bait savers	Bait containers, lids, bait baskets (used in commercial pots & traps)	38
Commercial fishing remnants	Bits and pieces of floats, traps, bait containers, glow sticks, fishing crates	38
 Chemical light stick / glow stick	Chemical light stick / glow stick, mini glow sticks, recreational fishing glow sticks, novelties & toys	38
Fishing line metres (recreational)	Length estimated in metres	38
Recreation fishing items	Rods, hand reels, lures, floats, cutting boards, knives, squid jigs	38
Rope & net scraps less than 1 metre	Rope scrap, fishing net scrap	39
Rope (estimated length in metres)	Rope greater than 1 metre in length and able to be removed by collector	39

Additional Plastic Items - Fishing

Item Name	Examples	Page
Aquaculture items	Oyster spacers, muscle pots, biofilters	39
Baskets, crates & trays	Packing crates, baskets & trays used in commercial fishing	39
Commercial fishing traps intact parts	Lobster, crab, fish, squid traps and pots, lobster pot necks	39
Fishing line metres (commercial)	Length estimated in metres - monofilament	40
Fishing net metres over 1 metre	Length estimated in metres	40
Plastic buoys & floats	Long line fishing marker buoys, mooring buoys, fenders	40

Silke Stuckenbrock / TwoHandsProject.org



Bait & tackle bags & packaging



Bait containers & lids, bait savers



Commercial fishing remnants



Chemical light stick / glow stick



Fishing line metres (recreational)



Recreational fishing items





Rope & net scraps less than 1 metre



Rope (estimated length in metres)



Aquaculture items



Baskets, crates & trays



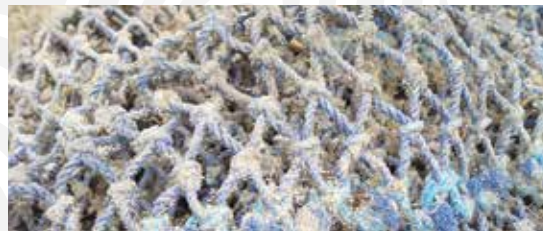
Commercial fishing traps, pots & intact parts



Baskets, crates & trays



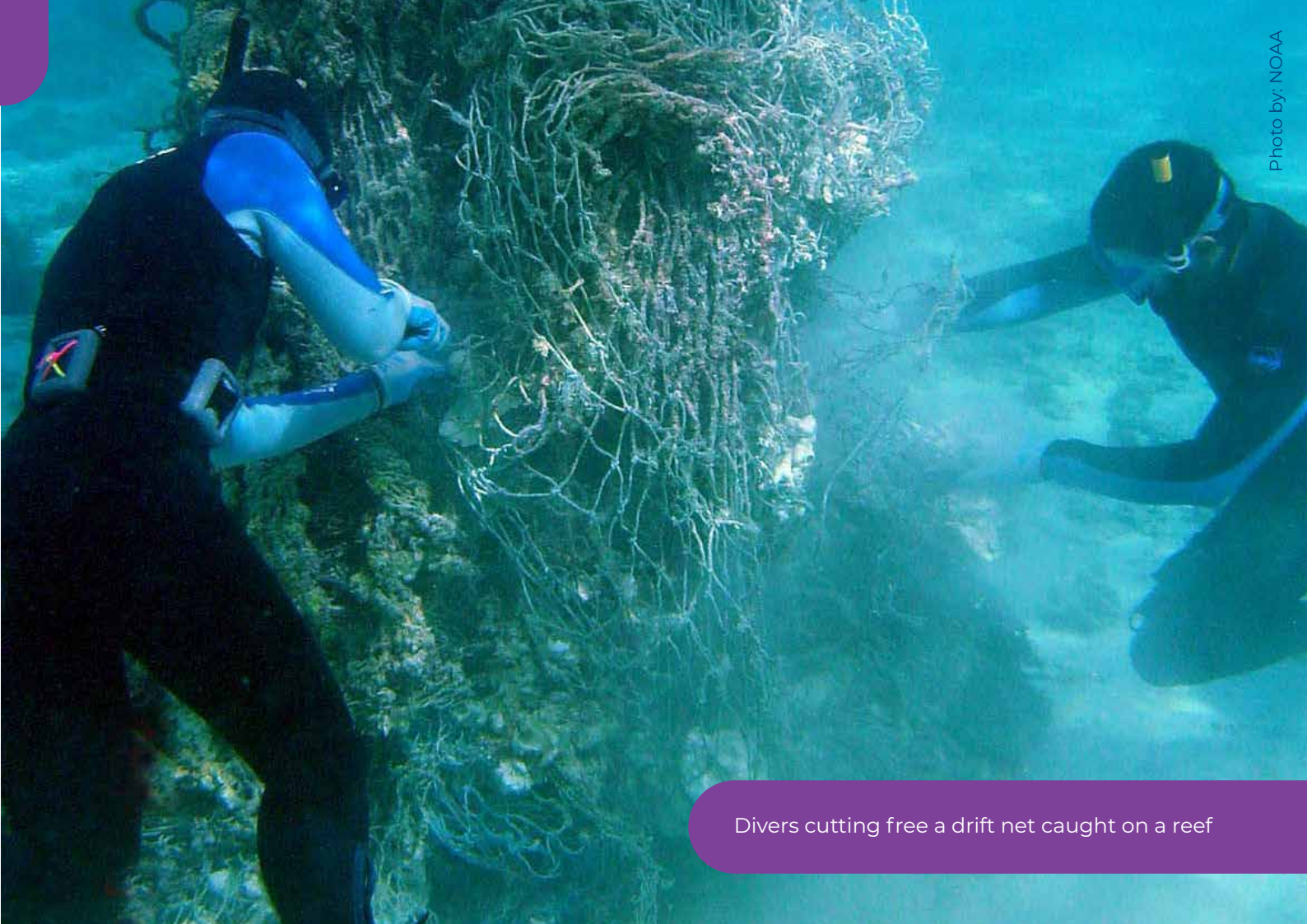
Fishing line metres (commercial)



Fishing net metres over 1m²



Plastic buoys & floats



Divers cutting free a drift net caught on a reef

Chemical light stick / glow stick



To help with identification, chemical light stick / glow stick have been given arbitrary type names, based on the construction of their base.

Use the above images to identify the base type of the chemical light stick / glow stick - A,B,C etc - and then find its code on the following pages.

Record how many of each type you find. Size and colour are not required.

Handle chemical light stick / glow stick with care and avoid the chemical contents if broken.

Chemical light stick / glow stick ((eye))



Chemical light stick / glow stick - type A

Chemical light stick / glow stick



Type B



Type C



Type D



Type E, F, G, H, I

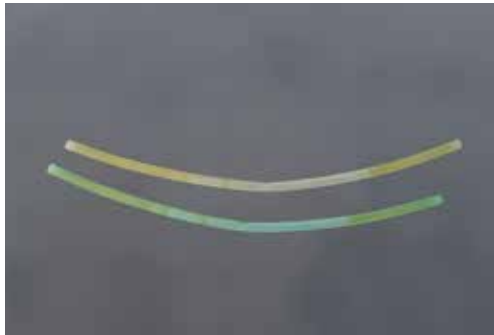
Chemical light stick / glow stick



Type J, K, L



Type A look-a-likes



Novelties & toys



Recreational fishing

Plastic Items - Remnants

Item Name	Examples	Page
Plastic bits & pieces	Plastic bits & pieces hard & solid	46
Plastic film remnants	Bits & pieces of bags, film, wrap, garbage bag knots, polyweave bag scraps	46
Remnants burnt plastic	Burnt or melted plastic	46



Plastic bits & pieces hard & solid



Plastic film remnants



Remnants burnt plastic



All rivers lead to the sea

Plastic Items - Industrial, Commercial, Shipping & Miscellaneous

Item Name	Examples	Page
Blasting items	Detonators, red cord, clips, explosives casing fragments	50
Cable ties & plastic fasteners	Cable ties, plastic fasteners	50
Carpet & lino, boat deck & padding	Carpet, linoleum, mats	50
Marine safety & survival equipment	Lifebuys, life jackets, emergency water & ration kits, personal lights & beacons, drogue	50
Medical waste	Drip packs, lines, tubes, injection capsules, bottles (syringes to be entered under Syringes Medical)	50
Municipal activities	Barrier fencing including fragments, tree guards, traffic cones, brush cutter string, pit covers & lids	50
Occupational health & safety items	Helmets, goggles, gloves, masks, ear muffs, ear plugs	51
Plastic electrical cable, connectors & fittings	Wire connectors, cable, fuse holders, fluorescent tube starters	51
Plastic farming implements, devices & fittings	Milking accessories, ear tags, feed tubs, ballcocks	51

	Item Name	Examples	Page
	Plastic pipe, irrigation & reticulation	Poly pipe, irrigation, reticulation, drainage	52
👁️	Plastic resin pellets	Pre-production plastic - nurdles	52
	Plastic tubes & hoses	Small plastic tubes & hoses	52
	Plastic vehicle parts	Car & motorbike parts & accessories	52
	Research items oceanic	Beacons, monitoring apparatus, artificial habitat	52
	Shotgun cartridges & wadding	Shotgun shell cartridges & wadding	53
	Syringes medical	Medical and drug injection syringes	53
	Syringes veterinary	Veterinary syringes	53
👁️	Tags	Tags security, identification, tracking, retail	53
	Tape adhesive, hazard marker & rolls	Tape sticky, gaffer, insulation, packaging, duct, hazard marker, survey	53



Blasting items



Cable ties & plastic fasteners



Carpet & lino household, boat deck & padding



Marine safety & survival equipment



Medical waste



Municipal activities



Occupational health & safety items



Plastic electrical cable, connectors & fittings



Plastic farming implements, devices & fittings



Plastic pipe PVC, irrigation & reticulation



Plastic resin pellets (👁)



Plastic tubes & hoses



Plastic vehicle parts



Research items oceanic



Shotgun cartridges & wadding




Syringes medical



Syringes veterinary




Tags 




Tape adhesive, electrical, duct,
hazard marker & rolls



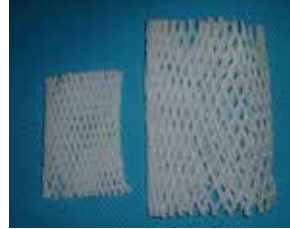
Tags 

Foamed Plastic Items

Item Name	Examples	Page
 Foam buoys	Cray floats, long line marker buoys, mooring buoys	55
Foam cups, food packs & trays	Cups, stubby holders, foam mesh bottle & fruit sleeves, foam food packs, trays	55
Foam insulation & packaging	Foam eskys, packaging moulds, styrene packaging materials & sheeting (whole and remnants)	55
Additional Foamed Plastic Items		
Drift net floats	Drift net floats	55
Foam sponge sheeting	Synthetic rubber mattress, foam sheeting	55



Foam buoy (👁️)



Foam cups, food packs & trays



Foam insulation & packaging



Drift net floats



Foam sponge sheeting

Other Materials

Item Name	Examples	Page
Oil globules & tar-balls	Oil globules, tar-balls	58
Sanitary items	Tissues, nappies, nappy wipes, tampons, applicators, cotton buds & stems, toilet paper & condoms	58
Shoes leather & fabric	All shoes & sandals. (Thongs - flip flops & Crocs are entered under rubber)	58

Additional Other Materials Items

Appliances, electronics & batteries	Phones, cameras, TVs, printer cartridges, pedometers, CDs, radios, electronic components & parts, batteries	59
Boat parts, wreckage & remnants	Boat pieces, accessories, fittings, air filters, fuel lines, wreckage	59
Building materials, fixings & fittings	Screws, nails, flywire, sandpaper, tiling spacers	59
Container contents - intact & spilt contents	Paint, sealant, spirits, oils, chemicals, foam still in container, leaking or deposited on beach	59
Food scraps	Food scraps, fruit & vegetables, gum, tea bags	59

Item Name	Examples	Page
Organic materials	Straw bales, animal manure, fish bait, dog & human excrement	59
Personal effects	Jewellery, medallions, keys, money, wallets, purses	60
Pets - handling & care items	Collars, leashes, dog tags	60
Wax & soap	Bath soap, dry lubricant, glue bottles & sticks candles, surfboard wax, paraffin and similar	60
Weather balloon parts	Weather balloons, foam, electronic parts & remnants	60



Oil globules & tar-balls

Tar balls are natural products originating from seeps in the ocean floor in seismic zones whereas oil globules usually come from oil spills or ballast discharges.

Tar balls do not leave a residue when handled but oil globules - especially newer ones will leave a stain and smell of tar or fuel. Both tar balls and oil globules can be present as a background low level concentration on a beach.

When oil globules show up in large numbers, cover a lot of beach and appear soft, flattened or as splashes they probably signal a recent oil spill. Report this to the state government agency responsible for monitoring oil spills.

Please also send us a brief report by mail or email including the location, a description of the oil, how much beach or coast is affected, the name of any agency you have advised, one or two photos of the oil and its coverage and your own contact details.



Sanitary items



Shoes leather & fabric



Appliances, electronics & batteries



Boat parts, wreckage & remnants



Building materials, fixings & fittings



Container contents - intact & spilt contents



Food scraps



Organic materials



Personal effects



Pets handling & care items



Wax & soap



Wax & soap



Weather balloon parts



Weather balloons are released daily in many countries to collect data for weather forecasts and observations. The instrument commonly consists of a balloon, polystyrene target, radiosonde electronic box, and at night a torch with batteries.

Record any of these items as weather balloon parts in the Additional Items section of the Data Collection Sheet.

At the end of 2020 the bureau started releasing blue balloons after advice that blue balloons were less likely to be ingested by turtles.

Glass, Ceramic & Construction Items

Item Name	Examples	Page
Fluorescent light tubes & bulbs	Fluorescent lights tubes, energy saver light bulbs, incandescent globes	63
Glass beer stubbies & pre-mixed alcohol bottles	Beer stubbies, alcoholic mixer drinks, glass soft drink and juice bottles, champagne bottles	63
Glass jars & sauce bottles	Food jars, coffee jars, sauce & food bottles	63
Glass or ceramic broken	Broken glass, crockery and pottery	63
Glass wine, spirit & similar bottles	Wine bottles, spirit bottles, energy drink bottles	63

Additional Glass, Ceramic & Construction Items

Construction material	Bricks, cement pipes & curbs, bitumen, building materials	63
Glassware and ceramic items	Glasses, wine glasses, shot glasses, decanters plates, coffee mugs	63



Fluorescent light tubes & bulbs



Glass beer stubbies & alco-pop bottles



Glass jars & sauce bottles



Glass or ceramic broken



Glass wine, spirit & similar bottles



Construction material



Glassware & ceramic items

Cloth Items

Item Name	Examples	Page
Binding, thread, string & cord	Binding, thread, string & cord made from cotton, hemp or other natural fibres	65
Cloth, clothing, hats & towels	Clothes, hats, towels, socks, shoe laces, cleaning rags	65
Additional Cloth Items		
Canvas, sailcloth & hessian materials	Hessian bags, sacking, sailcloth, canvas, dune matting, furniture covers	65
Rope natural (estimated length in metres)	Rope made from natural fibres such as hemp, sisal, jute	65



Binding, thread, string & cord



Cloth, clothing, hats & towels



Canvas, sailcloth & hessian material



Rope natural (estimated length in metres)

Metal items

Item Name	Examples	Page
Aerosol cans	Aerosol insecticide, personal care, lubricant, contact cleaner, household cleaners, gap filler, spray paint	68
Aluminium cans	Beer, spirit, soft drink cans	68
Foil wrappers, packets, bladders	Alfoil, foil snack packets, wine bladders, foil balloons, foil packaging	68
Metal bottle caps, lids & pull tabs	Bottle tops, lids, jar lids, drink can pull tabs	68
Metal fishing items	Sinkers, lures, hooks, traps, pots, swivels, tracers	68
Tins under 4 litres	Food tins, paint tins, aluminium glue & paint tubes	68

Additional Metal Items

Gas & volatile liquid capsules & cans	CO2 capsules, lighter fluid, camping gas cans	69
Gas bottles	Gas bottles LPG larger than 1.5 litres, refrigerant, fire extinguishers	69
Metal bicycle, shopping trolley	Shopping trolleys, prams, bicycles, water scooters	69

Item Name	Examples	Page
Metal buoys & floats	Aluminium buoys	69
Metal drums, cans & buckets over 4 litres	44 gallon drums, paint tins, jerry cans, kegs	69
Metal marine engine & boat parts	Fuel pumps, engine parts & fittings	70
Metal motor vehicle parts	Parts, accessories, batteries for cars, motor bikes	70
Metal outdoor equipment	Tent pegs, outdoor cooking equipment, metal, furniture, metal cutlery, gas cylinder nozzles	70
Metal scrap and remnants	Scrap metal, aluminium can remnants	70
Metal signs and sheeting	Sheet metal, metal signs, corrugated iron	70
Metal tools	Grease guns, spanners, screwdrivers, pliers	70
Small machinery	Lawnmowers, brush cutters, chainsaws	71
White goods	Fridges, washing machines, heaters, toasters, kettles	71
Wire, metal stakes & pipes	Fencing wire, barbed wire, wire mesh & netting, gates, steel pickets, metal pipes	71



Aerosol cans



Aluminium cans



Foil wrappers, packets, bladders



Metal bottle caps, lids & pull tabs



Metal fishing items



Tins under 4 litres



Gas & volatile liquid capsules & cans



Gas bottles



Metal bicycle, shopping trolley



Metal buoys & floats



Metal drums, cans & buckets over 4 litres



Metal marine engine & boat parts



Metal motor vehicle parts



Metal outdoor equipment



Metal scrap & remnants



Metal signs & sheeting



Metal tools



Small machinery



White goods



Wire, metal stakes & pipes

Paper & Cardboard Items

Item Name	Examples	Page
Newspapers, magazines & brochures	Newspaper, magazines, advertising, brochures	73
Paper & cardboard packaging	Cigarette packets, paper cups & trays, paper food & confection packaging, takeaway boxes and wrappers	73
Tetra pack & drink cartons	Cartons of milk, flavoured milk, juice, custard, poppers	73

Additional Paper & Cardboard Items

Miscellaneous paper & paper remnants	Bus & parking tickets, labels, posters, note & office paper, paper streamers, envelopes	73
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Newspapers, magazines & brochures



Paper & cardboard packaging



Tetra pack & drink cartons



Miscellaneous paper

Rubber Items

Item Name	Examples	Page
Rubber footwear & thongs	Thongs (flip flops), rubber shoes and soles, Crocs, flippers, fins	75
Rubber remnants	Bits and pieces of rubber	75
Rubber toys, elastic straps & bands	Balloons, tennis balls, golf balls, rubber toys, elastic straps, luggage straps, rubber bands, o-rings	75

Additional Rubber Items

Rubber buffers, tyres, seals & similar	Tyres, boat buffering, hatch seals	75
Rubber sheeting	Sheets of material for thong (flip flop) manufacture and similar	75



Rubber footwear & thongs



Rubber remnants



Rubber toys, elastic straps & bands



Rubber buffers, tyres, seals & similar



Rubber sheeting

Wood Items

Item Name	Examples	Page
Brooms, brushes & paint brushes	Brooms, brushes, paint brushes	77
Processed timber, pallets, other wood	Processed timber, pallets, plyboard	77
Wooden sticks, pencils & matches	Ice cream sticks, chopsticks, matches, toothpicks, pencils	77

Additional Wood Items

Wooden fishing	Wooden fishing traps, crates	77
Wooden furniture	Chairs, tables, wardrobes, TV cabinets, lounges, sofas, cupboards	77



Brooms, brushes & paint brushes



Processed timber, pallets and other wood



Wooden confection sticks, pencils, matches



Wooden fishing



Wooden furniture

Large Items

Large items include any item unable to be removed by hand from the beach. Make a note of the location and include a GPS coordinate if possible.

Please report large items to your local land management authority or Tangaroa Blue Foundation.

Please do not attempt removal as assessments are required as to aboriginal heritage sites and sensitive environmental issues.



Ghost Nets

Ghost nets are fishing nets that have been lost accidentally, deliberately discarded, or simply abandoned at sea. They travel the oceans of the world with the currents and tides continually fishing as they progress through the waters. As they are unattended and roaming, they fish indiscriminately, not only catching threatened species but undersized and protected fish as well.

GhostNets Australia is a not-for-profit organisation that focuses on the removal and mitigation of ghost nets in Northern Australia's marine and coastal environment.

Information on ghost nets can be sent to GhostNets Australia. Collect the length and width (in metres) of any net you come across, if you haven't got a tape measure then measure it by pacing it out. If it is really tangled you can estimate the size. You can enter the details into the GhostNets Australia Database at <http://www.ghostnets.com.au/database/>

GhostNets Australia
www.ghostnets.com.au
info@ghostnets.com.au



Try and release any alive animals that are caught in ghost nets. Also include a photo of the animal when submitting your information. If any animal / bird is found dead in the net please take a photo and note this also in your information. If the nets are too large to be removed by volunteers try and drag them well above the high tide mark to prevent them washing back in the ocean and report the net to your local land management authority.

Dangerous & Very Hazardous Items

Hazards associated with marine debris are many and various. The “Dangerous and Very Hazardous Items” class is for recording items which present an immediate threat of some kind, or contain substances which could cause immediate and serious harmful impacts to wildlife and people. The kinds of items to record here are military ordinance - bombs etc, industrial explosives and detonators, containers bearing a radioactive warning, large containers of toxic chemicals, asbestos and anything similar you consider to fit into this item class.

Make safety your number one consideration. Keep people away and do not touch, tamper, attempt to open or move the item. Send someone to contact the local police or emergency services immediately if necessary, otherwise contact the local police or ranger as soon as possible. If you have a camera take some pictures to help authorities determine a course of action.



Military phosphorous bomb



Asbestos



Aluminium phosphide
canister used to
fumigate vessels



Additional Information Data Collection Sheet

Foreign Items Data Collection Sheet

Please make one entry for each item from which label information is obtained.

CLEAN-UP DETAILS			INFORMATION WRITTEN ON THE LABEL / ITEM			
State	Site	Clean-up Date	Country of Origin	Type of Item	Barcode	Other information
e.g. QLD	Cape Kimberley	19/2/2019	Indonesia	Plastic Bottle	151 151654894 8	AMON Water Bottle

Strapping Band Data Collection Sheet

Please make one entry for each whole strapping band measured.

CLEAN-UP DETAILS			STRAPPING BAND DETAILS				
State	Site	Clean-up Date	Colour	Width (mm)	Length (mm)	Cut / Uncut	Writing
e.g. QLD	Cape Kimberley	19/2/2019	Blue	12mm	1200mm	Cut	Joe's Seafoods

Chemical light stick / glow stick Data Collection Sheet

Please make one entry for each Chemical light stick / glow stick.

e.g	CLEAN-UP DETAILS			CHEMICAL LIGHT STICK / GLOW STICK DETAILS		
	State	Site	Clean-up Date	Type	Barcode	Other information
	QLD	Cape Kimberley	19/2/2019	A5	IIIII IIIII II	No info

Tags and Floats Data Collection Sheet

Make one entry for each tag or float recorded.

e.g	CLEAN-UP DETAILS				TAG AND FLOAT DETAILS			
	State	Site	Clean-up Date	Item	Description	Tag / Float Type	ID Number	Other Info
	QLD	Ellensbrook	28/6/2019	Float	12mm	Cray pot float	G178	No info



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