

Fishing and boating



Cultural fishing

Fishing has always been an important part of Aboriginal communities' cultural and economic life. For many Aboriginal people, fishing is an integral component of connection to their traditional country and supporting their family. Quite often a few family members fish for many, especially in circumstances where members of the family are elderly or are unable to participate in the fishing activity.

Protecting and promoting cultural fishing activities of Aboriginal communities is recognised in managing our fisheries resources with measures that provide for continued access to and involvement of Aboriginal people in managing the NSW fisheries resource.

Aboriginal cultural fishing is defined as "fishing activities and practices carried out by Aboriginal persons to satisfy their personal, domestic or communal needs, or for educational or ceremonial purposes or other traditional purposes, and which do not have a commercial purpose".

Ron and students using traditional spears (Ian Kerr, DPI).



Fishing techniques

Aboriginal fishing methods

Aboriginal people have developed many methods for harvesting sea tucker, including spears, nets, small traps, lines with hooks and stone fish traps. Canoes made from the bark of trees such as eucalypts, mahogany and turpentine were often used to go fishing. Traditional fishing techniques are still used today to help retain cultural practices.

Spears are the most widespread harvesting tool among Indigenous Australians. They can be made from lightweight materials, such as the grass tree and kurrajong, or heavy materials, such as eucalypts. When making a spear, fire is used to help straighten or harden the wood. The spearhead is often made from stone, sharpened to tear through flesh and skin. It is fastened to the spear using animal sinew or twine and plant sap.

Nets and traps are generally made of natural fibres, and fishing line from the inner bark or shredded leaves of various plants, which can be very strong when twisted. Hooks can be fashioned from sharpened shells.

Fish traps are large structures built from rocks in the tidal zone of rocky shores. The traps are baited on the outgoing tide, and the smell attracts fish into the traps on the incoming high tide. Once in the trap, fish are either collected in smaller traps or speared.

Dolphins are known to assist in the fish harvest at many coastal locations. When dolphins are seen, a gifted community member will sing to them. The dolphins circle the fish and drive them onto the shore where they are netted. Sometimes fish will be left stranded if the tide is outgoing at the time, and then they are simply collected from the beach.



"Each year, when the mullet was running, one of the tribal Elders would go to a point overlooking the ocean. They would call out in Gumbaynggirr lingo for the dolphins to help round up all the fish and bring them in so the tribal people could feast."

As told to Tony Hart, Gumbaynggirr artist, by his grandfather.





Fishing techniques

Although some groups still use traditional methods for personal/family and educational purposes, modern technology has changed the way food can be harvested from the ocean.

For recreational fishing, we use rods, often made of fibreglass or carbon fibre, so they are lightweight and flexible. The fishing line is made out of nylon so it can haul in heavy fish and we use metal hooks that are very thin and sharp to pierce the mouth of the fish we are catching.

Motorised boats allow us to get out into deeper water and catch larger fish, or access offshore reefs where fish are gathered. Most boat owners have an echosounder on board and this uses sonar technology to 'see' what's under the water and to check the depth of the water. Echosounders have an internal GPS that can pinpoint the boat's location on a digital map so you don't get lost.

We still use spears today, but their design has changed. Bandpowered spearguns work like a combination of a crossbow and a slingshot. The gun is loaded by stretching strong rubber bands from the barrel's end to the spear's back. When the trigger is pulled, the spear is released and the rubber band snaps, propelling the spear forward. Spearguns are used while the user is diving underwater, or snorkelling, unlike traditional spears thrown by hand from above the water's surface.

Large-scale modern equipment is used in commercial fishing. Commercial fishers are not fishing for themselves or their families, they are fishing to feed the community, therefore, the quantities that they catch are significantly increased. They use big boats that head out into open waters and can use:

- large nets that can be towed behind the boat, such as trawlers, or set up in a single spot
- long lines set up at various depths to hook fish
- traps and pots for catching crayfish
- power handlines like a rod and reel but motorised.





Above: Fishing boat travelling past Coffs Harbour breakwall, fishing rods and reels. Below: Echosounder, fishing trawler.





Know your fish species

When fishing, it is very important to know what species you are likely to catch. This can help you know what fishing gear to use, how many you're allowed to catch and what size they should be before you keep them – see bag and size limits.

Everything you need to know about recreational fishing and the saltwater fish species in NSW can be found in the NSW Saltwater Recreational Fishing Guide or you can use the new FishSmart App.



Above: Black rock cod – Vulnerble (Dr David Harasti).

Below: Blue morwong and yellowfin bream.





FishSmart NSW

FishSmart is a free app available at the AppStore and Google Play. It provides recreational fishers with 24/7 access to the essential information they need to know to fish in NSW.



On the app, you can find:

- a pictorial guide of common recreational species, bag and size limits, closed seasons and fishing gear rules
- record and keep your catch log
- real-time maps to locate the nearest FADs (Fish Aggregation Devices), artificial reefs, Recreational Fishing Havens and marine park zones
- local weather, tide, moon phase and barometric pressure to help choose the best time to fish
- guides on spearfishing, fishing safely, trout fishing, regional fishing
- DPI contact for reporting illegal fishing, fish kills, pest species etc. and local Fisheries Offices
- · DPI Facebook news.

Bag and size limits

Bag limit

Daily bag limits are one of the key tools for managing recreational fishing. They limit the number of fish that an individual angler can catch and keep in 24 hours.

Bag limits are typically put in place for several biological and social reasons including:

- · conserving fish stocks
- sharing the catch between recreational fishers and other users
- encouraging responsible and ethical use of fisheries resources
- assisting in reducing illegal fish sales
- protecting threatened or vulnerable species.

Bag limits apply to all forms of recreational fishing for fish and invertebrates, including line fishing, spearfishing, hand gathering, prawn scooping, drag netting, bait collection, and the use of crab traps, nets and lobster pots.

In NSW, a maximum daily bag limit of 20 applies to any fish or invertebrate not included in the bag and size limit tables. Protected and threatened species cannot be taken.

Possession limit

Some saltwater fish also have a possession limit. A possession limit is the maximum number of fish that a person is allowed to have in their possession at any time. This includes fish that are also stored elsewhere, such as in a fridge or freezer. This is to limit recreational fishers from accumulating commercial quantities of fish.

Boat limits

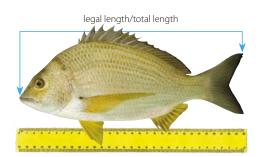
Boat limits aim to limit the catch of anglers fishing in the same boat over 24 hours. These apply regardless of the number of people in the boat.

Fish size

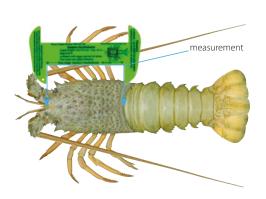
Some fish and invertebrates have size limits, meaning you can only keep those that meet the size requirements. This allows fish to grow up to the adult stage and can breed. Catching lots of undersized fish can greatly impact the future breeding stock.

Find out more about the correct way to measure the size of different species by visiting the DPI How to measure fish page (see link below).

The correct way to measure fish and crustaceans







For more information

Click or Scan the QR Codes

Saltwater bag and size limits
Website



How to measure fish Website



Freshwater bag and size limits
Website



Sustainable fishing

Seafood is a primary food source for millions of people worldwide. To maintain supplies globally, many fish stocks have been overfished, threatening wild fish stocks and entire marine ecosystems. Sustainable fishing methods try and bring balance back to the industry and the environment.

Sustainable fishing allows fish to swim around, time to grow and reproduce, while protecting habitats and threatened species.

There are three key principles to sustainable fishing to meet global standards:

- 1. Sustainable fish stocks:
 Are enough fish left in the ocean? Fishing must be at a level that ensures it can continue indefinitely and the fish population can remain productive and healthy.
- 2. Minimising environmental impact: What are the impacts? The fishing activity must be managed carefully so that other species and habitats within the ecosystem remain healthy.
- 3. Effective fisheries
 management: Are operations
 well managed? Marine
 Stewardship Council-certified
 fisheries must comply
 with relevant laws and be
 able to adapt to changing
 environmental circumstances.

Almost all fishing can be sustainable if well-managed regardless of the fishing method or gear type. Fisheries science and effective fisheries management are important tools to ensure sustainable fishing is occurring.

When you see the MSC blue fish tick label on seafood, you can be sure it can be traced back to a certified sustainable fishery.



For more information

Click or Scan the QR Code

MSC Sustainable fishing Website



School of yellowtail scad (Sean Phillipson)



Aquaculture

There is a huge demand for seafood in Australia, and to keep up with this demand suppliers have to use other methods to source seafood. Some of our key seafood species are now produced using aquaculture. Aquaculture is the commercial farming of fish, molluscs, crustaceans and aquatic plants, in natural or controlled marine or freshwater environments. Aquaculture takes the pressure off commercially harvesting wild fish stocks, allowing them to grow and be around for future generations.

The aquaculture industry has farms set up across Australia, with many farms in regional areas, making a positive contribution to regional development. The location of aquaculture farms is dictated primarily by the environmental constraints of the species being grown.

In NSW, the key marine species farmed are oysters, prawns and mussels. Mulloway and Snapper are also being developed as farmed species. Species farmed in land ponds, or freshwater, include Silver Perch, Trout, Yabbies, Murray Cod and Barramundi.

Aquaculture is not a new idea, far from it! Aboriginal communities conducted aquaculture using fish traps to capture, hold, and grow fish for later use. Oyster farming started in NSW back in the 1870s, with a current annual production of over 106 million oysters worth over 35 million, oyster farming has been the most valuable aquaculture industry in NSW over 100 years.

For more information

Click or Scan the QR Code

Oyster industry in NSWWebsite



Oyster aquaculture farms (Peter Robey/DPE).







Safe boating in estuaries and harbours

Enclosed waters, including coastal rivers, lakes, bays, ports harbours and estuaries can be dangerous even when they appear calm. Their shallow waters and strong currents, and sometimes remote location, can increase the risk to boaters, so it is important that you are prepared before heading out on the water.

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Boating safety checklist

- Make sure you have the right safety equipment for your vessel.
- Use maps and, where possible, talk to people who know the waterway. They may have valuable local knowledge about currents, water depth and hazards.
- Always let someone know where you're going.
- Mobile phone reception can be unreliable. It's recommended that you have at least two means of communication, for example, a marine radio and a mobile phone.
- Enclosed waters can be murky and hide hazards.

- If you're unsure about an area, reduce your speed and use your depth finder, if you have one. You may need to slow down to keep a proper lookout.
- Be aware that shallow areas may not be marked and can shift. Take extra care.
- Look out for other vessels and swimmers.
- Enclosed waters at popular locations can be very busy.
- Be careful at bends and always keep to starboard (right) in narrow channels. Avoid anchoring or fishing where you may obstruct other vessels.

Marina in Nelson Bay, Port Stephens.



Safe boating near marine animals

Marine mammals

Large marine mammals, such as whales, dolphins and seals, are a wonderful sight to see when out on the water, but they need humans to behave appropriately around them. The Biodiversity Conservation Act 2016 protects marine mammals while allowing people to appreciate them in the wild.

Regulations are in place to reduce disturbance to ensure the marine mammal's safety and yours.

Inappropriate vessel approaches can disrupt core biological behaviours, such as feeding and resting, while also increasing the risk of collisions, potentially causing injury and death. Mothers and calves are most at risk, as calves spend more time at the surface and can be more inquisitive, thus being more prone to vessel strikes.

Sea turtles

It's vital that you be particularly careful when boating in areas known to have turtle populations. When viewing sea turtles from a boat:

- Be on the lookout for surfacing turtles in areas such as shallow reef flats and seagrass meadows. Travel slowly in these areas, with no wake
- If a turtle is close to your vessel, engage neutral and allow the animal to move freely
- Do not encircle or trap turtles with vessels. Allow an escape route
- Do not drive your vessel over a turtle
- Do not pursue turtles if they try to avoid the vessel or flee the area.



Above: Green sea turtle feeding (David John Ciavarella). Below: Humpback whale off the Coffs Coast (Kelly Coleman)

