

10 Tips for a Fish Friendly Marina

Clean waterways with healthy fish populations are good news for marinas and the boating industry. Around 70% of boats are used for recreational fishing, so ensuring we have clean water and plenty of fish will contribute to the ongoing appeal of boating and fishing.

Marinas provide a range of services to their boating and fishing customers and there are many things marina operators can do to be more fish-friendly. Here are 10 tips for making your marina more fish-friendly!

1. Make your infrastructure ‘fish friendly’

Pontoons, rock break-walls, pylons and other marina infrastructure can provide excellent habitats for fish and other marine life, creating environments to shelter, breed and feed.

In contrast, some structures may negatively impact upon nearby habitat areas, such as block and chain moorings which can cause scour holes and remove seagrass while overly deep dredge holes can create areas of low oxygen that fish will actively avoid.

Government agencies and environmental authorities can provide information on fish friendly infrastructure designs and advise on approvals or permits that may be necessary.

What you can do

- Use fish friendly designs for any new infrastructure
- Modify existing structures to improve their value as fish habitat or reduce potential negative impacts
- Install ‘environmentally-friendly moorings’ to minimise damage to seagrass and the seabed
- Improve water circulation through deep dredge areas or reduce their depth
- Construct fixed or floating structures that sit over the water from mesh or PVC plastic and position them to minimise shading of the sea floor



Protective space provided by this ladder on a jetty has the right dimensions and attributes that appeal to bream - *Photo by David Lennon, Sustainable Oceans International (SOL)*



Marina ladder and sponges at Blairgowrie Yacht Squadron, VIC
Photo by David Lennon, SOL

2. Find out about your local fish and their habitats

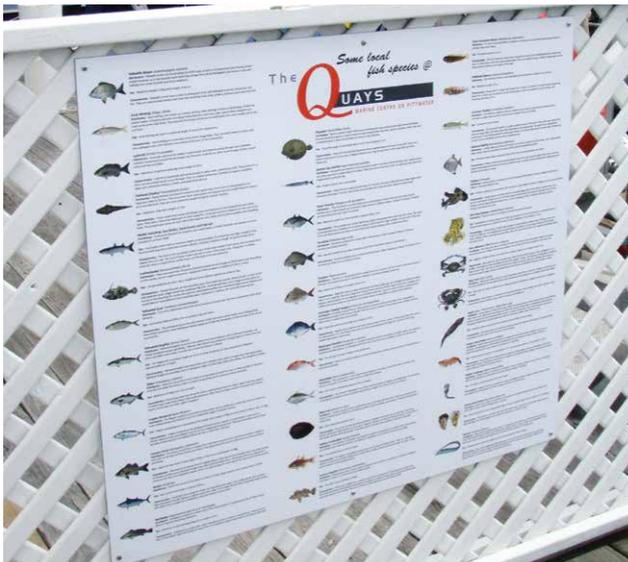
Diverse and abundant native fish populations are a good indicator of healthy waterways.

Most fish require a range of habitats to complete their life cycle, including seagrasses, seaweeds, rocky shores as well as submerged and intertidal areas of sand and mud.

Many species of fish are found over wide areas however some are unique to only a few places.

What you can do

- Know the breeding, nursery and feeding habitats used by the range of local fish species important to recreational fishers
- Find out about any unique or threatened species in your area and how best to help protect them
- Get involved in rehabilitating habitat areas within the marina or nearby



Signage at The Quays Marina, Sydney showing local fish species

3. Keep invaders out

Domestic and international vessels pose a risk to Australia's marine environment by spreading marine pests. About 250 plants and animals have been introduced into and spread within Australian waters via ballast water, attached to the hulls and equipment of vessels, on fishing and dive gear, and on aquaculture equipment and stock. Many are now regarded as marine pests.

Marine pests can threaten our native marine life directly as predators or competitors for food and can alter the natural habitat. They can also increase fuel, maintenance costs, and fouling rates for boats and infrastructure, and decrease performance.

The water conditions and range of sheltered habitats in marinas provide highly suitable conditions for marine pests to establish new populations. Poorly maintained boats are at higher risk of transporting marine pests to new areas.

What you can do

- Familiarise yourself with marine pests that are likely to turn up in your area and make the information readily available to staff and customers
- Ask your staff and customers to report sightings of suspicious species to the relevant government agency e.g. NSW DPI, Department of Fisheries WA
- Participate in programs aimed at educating boaters about their role in helping to prevent the spread of marine pests and diseases
- Encourage customers to maintain clean hulls and internal plumbing by providing facilities for regular maintenance, especially before travelling to other locations



Black-striped mussels fouling a rope in a Darwin marina - *Northern Territory Fisheries*



Undaria on hull of boat in Wellington
Lesley Patson, MPI

4. Manage your stormwater

Typically marinas have areas that were once covered by vegetation which has since been replaced by impermeable surfaces, such as concrete, bitumen or paving. This leads to increased runoff when it rains and faster delivery of often poorer quality water to estuaries.

The higher levels of pollutants common in stormwater can lead to the dieback of aquatic vegetation and to fish kills.

What you can do

- Ensure your first flush catchment system is of sufficient capacity and is regularly maintained
- Install tanks to collect rainwater
- Retain areas that slow rain water down and help it soak into the soil, such as lawns and gardens, as much as possible
- Make sure drains and collection pits are clear of debris



Rainwater collection tanks at Empire Marina, Bobbin Head



Keep drainage pits clear of debris

5. Manage your waste

Many different types of waste are generated from normal marina activities and it can be easy to underestimate their impact on the marine environment. The heavy metals, nutrients, acids, oils and other hydrocarbons associated with both solid and liquid wastes can be a serious problem for marine life.

There are obviously many rules and regulations linked to workplace health and safety, Australian Standards and various pieces of legislation that relate to managing waste and minimising the risks.

There are, however, some simple things that can help reduce risk and minimise damage in and around the marina.

What you can do

- Make sure slipways, hardstands, and work areas are graded, bunded and fitted with catch drains to collect liquid wastes
- Carry out all work above catch drains and collect dust close to source by using dust extractors
- Use non-toxic water-based or biodegradable strippers, cleaners or degreasers wherever possible and encourage boat owners to do the same
- Discourage boat owners from discharging bilge water into the waterway and promote the use of oil absorbent products
- Offer pump out facilities or provide information about the location of the nearest facility



Soldiers Point Marina pump out facility



Bunding on Fenwick Marina's Hardstand area

6. Manage your chemical, oil, fuel and fire risks

As well as being highly damaging to marine life, chemical and oil pollution is unsightly and can significantly reduce the pleasure of a recreational boating experience for marina customers.

The accidental release of fuel, oil and other chemicals can also be caused by fire. As well as the damage to boats and infrastructure, the chemicals that result from burning plastics and other materials can be highly toxic.

As well as the mandatory fire and spill procedures, there are several other things you can do to minimise the impact of accidents on your marine environment.

What you can do

- Install fuel spill preventative devices at your fuel dock
- Display prominent and easy to understand signs outlining spill clean-up procedures and emergency contact numbers
- Make sure areas where chemicals, fuel and oil are used or stored are graded, bunded and fitted with catch drains to collect any spills
- Have well stocked spill kits available that are appropriate for your activities and the chemicals used on-site



Maori Cod
David Harasti NSW DPI



Prominent marina signage

7. Look after your seagrasses and other sensitive fish habitat

Saltmarshes, mangroves, seagrasses and seaweeds provide important habitat for fish to breed, shelter and feed. Some of the popular fish that rely on marine vegetation include yellowfin bream, luderick and leatherjackets.

However, these plants are fragile and can be easily damaged or destroyed.

Seagrasses and other estuarine vegetation also trap suspended matter and absorb nutrients, helping to improve water quality. Their rhizomes (roots) help to bind the sediment, thereby providing some protection against wave-induced erosion.

What you can do

- Replace traditional moorings with 'environmentally-friendly' types which prevent the chain from contacting the sea bed
- Reduce shading seagrass beds by using mesh decking
- Avoid damaging sensitive habitats by directing boat traffic away from particular areas or re-routing stormwater runoff to avoid shallow waters
- Replace vertical seawalls with sloping sandstone boulder walls, or retrofit vertical walls with 'habitat windows' to increase the available area of habitat and to minimise the potential for erosion caused by wave reflection



Posidonia and *Zostera* species of seagrass
NSW DPI



Saltmarsh Sea Wall, Cooks River Sydney
NSW DPI

8. Educate your customers

Seeing local fish species can be a feature of a marina visit and providing information to your customers and the public about local species can enrich the experience and add to the attraction.

Recreational fishing rules are in place to help ensure healthy and sustainable fisheries for current and future generations.

Recreational fishers are also encouraged to ensure discarded fishing gear and waste doesn't end up in the water; to avoid anchoring in seagrass and to avoid prop-scour when navigating over shallow seagrass beds.

What you can do

- Provide information about local fish species and habitats of the marina and adjacent waters
- Have information available about sustainable fishing and boating practices, such as fishing guides, brochures and bag and size limit stickers
- Put up signage promoting sustainable fishing and boating practices provided by government agencies or other reputable organisations
- Tell your customers about what you are doing to become more fish friendly



City Reef at Singapore's Marina
at Keppel Bay



Soldiers Point Marina Customer
Information Kit

9. Don't disturb the natives!

Many people enjoy feeding fish and wildlife however a human-supplied food source nearly always leads to problems for the animals and often for people as well.

Human-supplied food is not as nutritious for marine life as their natural diet. Crowded feeding areas can promote the spread of diseases and change the way some species behave, leading to increased populations with aggressive, territorial behaviour. Supplementary feeding may advantage some animals, including exotic species and disadvantage others.

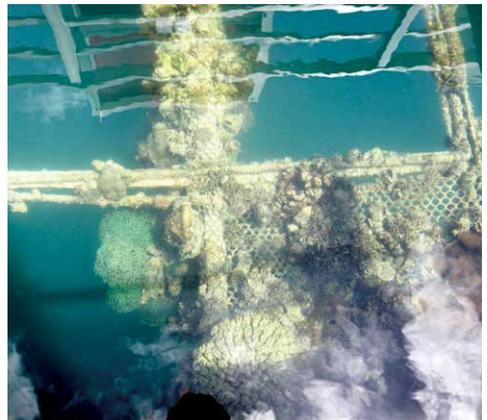
Feeding animals can also create a very uninviting, and at times intimidating, dining or picnicking experience shared with hordes of birds. Boat owners often go to considerable lengths to keep birds and their droppings off their boats, so it is important to inform non-boating visitors to the marina about such issues.

What you can do

- Ask customers and visitors not to feed birds or fish
- Prohibit the disposal of fish waste in the marina basin, and/or provide for proper disposal of fish waste
- Let people know the location of nearby fish cleaning and disposal facilities



Seal snoozing on a pontoon at Soldiers Point Marina



Singapore's One°15 Marina's coral rejuvenation project

10. Promote your marina's 'fish friendly' activities

The wider community is taking an increasing interest in the health of marine areas and wildlife.

This interest is reflected in the efforts of local environment groups, councils, government agencies and other organisations to protect marine ecosystems and to rehabilitate fish habitat.

Telling your customers and the community about your fish friendly program will not only increase awareness of some of the positive things you are doing to maintain and improve the health of your local marine area, but encourage others to do their bit.

What you can do

- Display prominent signage promoting the marina as being 'fish friendly'
- Have fish friendly marina brochures available for marina customers
- Take the time to show new customers around your marina and show them the fish friendly features and other environmental improvements
- Let customers know what is expected of them as patrons of a 'fish friendly' marina



Fish Friendly marina signage at Royal Freshwater Bay Yacht Club, WA



Anchorage Marina Port Stephens, NSW

More Information

The International Clean Marina Program includes elements in the Level 3 Accreditation relating to being 'fish friendly'. For more information about the Clean Marina Program contact:

The Marina Industries Association

PO Box 1204, Crows Nest NSW 1585

P: (02) 9439 5806 **F:** (02) 9439 3983 **E:** info@marinas.net.au

W: www.marinas.net.au/industryprograms/international-clean-marina-program

NSW DPI Fisheries provides information and advice about all matters relating to fish habitat, including regulatory requirements and habitat rehabilitation opportunities. The Department of Fisheries WA provides information and advice on aquatic resource management and biosecurity matters. For more information contact:

NSW DPI Fisheries

1243 Bruxner Hwy, Wollongbar NSW 2477

P: +61 2 6626 1200

E: Marcus.Riches@dpi.nsw.gov.au (habitat protection and permits)
Craig.Copeland@dpi.nsw.gov.au (habitat rehabilitation)

W: www.dpi.nsw.gov.au/fisheries/habitat

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Department of Fisheries, WA

3rd Floor, The Atrium, 168-170 St Georges Terrace, Perth WA 6000

P: (08) 9482 7333

E: biosecurity@fish.wa.gov.au

W: www.fish.wa.gov.au/biosecurity

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Disclaimer

The information contained in this publication is based on knowledge and understanding at the time of updating this document (Feb. 2016). However because of advances in knowledge, users are reminded of the need to ensure that the information upon which they rely is current and in accordance with requirements of their relevant state government agency.

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