

# Do You Care?



## CARE

SCHOOL OF BEST PRACTICE



FishCare promotes best practice techniques to help recreational fishers reduce their impact on our inshore fisheries. Our vision is an abundant fishery enjoyed by today's and future generations.



Lou and Iris Fisher  
Charitable Trust



New Zealand Angling  
and Casting Association



# Fishing Techniques



## FISHING WITH LURES

Fishing with lures has a number of advantages over fishing with bait and can add to the skill and satisfaction of fishing. (Pic.2)

- Modern lures and soft plastics catch fewer small fish.
- Lures lip hook fish more often. (Pic.4)
- Overall, the size of fish caught will increase and injure fewer fish that are released.



## AVOID CATCHING UNDERSIZED FISH BY CHANGING YOUR TACKLE AND TECHNIQUES

### FISHING WITH BAIT

If fishing with bait use big baits on big hooks preferably size 7/0 or larger. *(Pic.1)*  
Try using target appendage hooks as these are more difficult for small fish to swallow. They are especially useful when long lining and can be excellent for rod/line fishing as well. *(Pic.3)*

Use circle hooks instead of J hooks wherever possible as circle hooks predominantly hook fish in the lip instead of the gut. We recommend non-offset circle hooks, especially for game fish as this is supported by international research and the

International Game Fish Association (IGFA).

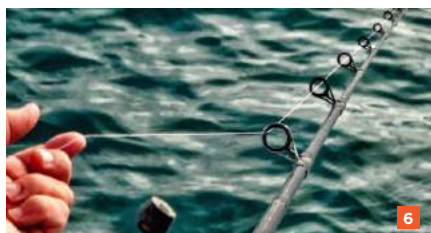
A research study in the Hauraki Gulf found the survival rate of lip hooked snapper was around 90-95%, for fish caught in depths between 14 and 20 metres. *(Pic.5)*

When bait fishing fish actively. Hold your rod and keep in touch with your bait, ready to set the hook once bites are detected. This way smaller fish have less time to swallow the hook. Set the hook slowly if using circle hooks. *(Pic.6)*

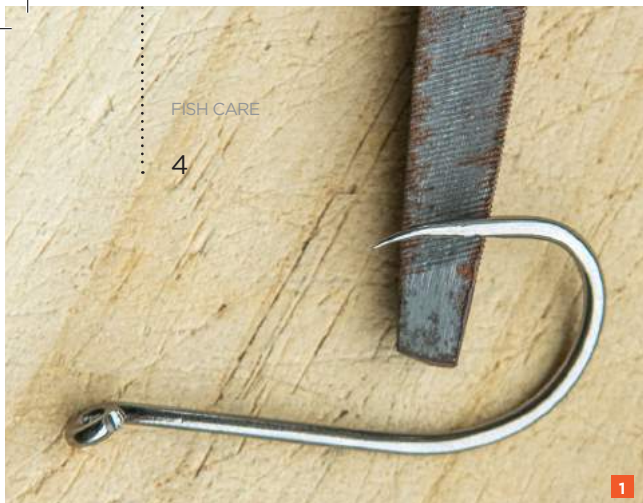
### GENERAL

Use suitable tackle and line weight to ensure fish can be landed, the quicker the better.

Please move location if you are catching mostly small fish or switch to using lures such as soft plastics or slow jigs as these are less likely to hook small fish.







## > When boat fishing...

### HOOKS

Try flattening (or filing down) the barb on your hooks. This makes unhooking the fish easy and causes less handling damage or stress to the fish. (Pic 1)

Avoid using stainless steel hooks if you can, they stay in the fish a long time if the fish escapes with the hook attached.

If the fish has swallowed the hook it is unlikely to survive. Keep gut hooked fish of legal size.

### LANDING FISH

If possible leave the fish in the water and roll the hook out of its mouth with pliers or a de-hooking device.

A synthetic rubber landing net is best for securing fish to reduce damage to the scales and eyes. Knotless mesh nets are the second choice. (Pic 2)

If you need to lay a fish down leave them in the net or place them on a smooth, cool, wet surface. Contrary to popular belief please DO NOT use a wet cloth, towel or sponge as they all remove the mucus layer, instead, use wet hands where possible.

Pic 1: Hook with barb filed flat

Pic 2: Rubber landing net on smooth surface

Pic 3: Large kingfish need to be handled with care before being returned to the water

# Handling

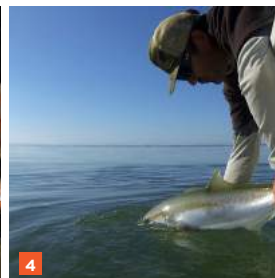
## > When land based fishing...

Fish caught from the shore need extra care as they are often dragged over sand and rocks before release, losing their protective mucus or scales.

If you can't release fish whilst they are in the water (due to safety concerns), swinging the fish directly into wet hands for handling and release is the next best option. A longer fishing rod makes this more achievable, i.e. 3 meters or longer. You may also find a suitable rock pool to handle larger fish before release.



3 FishCare Ambassador, Tony Orton from Offshore Adventures



Pic 4: Try & release fish while they're in the water

Pic 5: Please use two hands to support and handle fish that are intended for release

# and releasing fish

## Photographing your catch...

Hold the fish horizontally with one hand under the chin and the other hand supporting the body.

Minimise the time the fish is out of the water

**PLEASE, no fingers in the gills.**



FishCare Ambassador, Matt Von Sturmer from SaltFlyFish

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AS A FISH IS BROUGHT TO THE SURFACE THE AIR IN ITS SWIM BLADDER EXPANDS. THE DAMAGE CAUSED BY THE STOMACH BEING PUSHED INTO THE MOUTH AND THE PRESSURE ON THE INTERNAL ORGANS IS CALLED "**BAROTRAUMA**".



## RELEASING FISH

If releasing a deep hooked fish cut the line close to its mouth and carefully release as soon as possible.

If you do not have a descender rig (see *following page*) on hand to help quickly recompress the fish, then the next best approach is to puncture the stomach that is protruding from the mouth.

A recent Australian study found that

snapper healed quickly if a small puncture was made in the protruding stomach to release the gas and allow the fish to swim back down by itself. This is easily done with the point of a sharp hook. This practice has historically not been encouraged but the study results found it to be just as effective as using a hypodermic needle to release gas from the swim bladder.



## MINIMISING THE EFFECTS OF BAROTRUMA

While there are a few methods practiced by fishers overseas to help fish return to depth, the descender rig is amongst the easiest and quickest ways of accomplishing this.

### A descender rig requires:

1. A separate rod/reel that can manage 16-20oz of weight
2. A pair of fish grips
3. A heavy sinker (16-20oz hapuka 'bombs' are suitable).



### Method:

1. Tie a 30-50cm length of line between the sinker and the lower hand grip of the fish grips.
2. Tie the mainline from the rod to the upper hand grip. You may need to drill a hole in either or both handles to provide a tying point.
3. When you have a fish showing signs of barotrauma (typically anything caught from depths in excess of 20 meters) attach the grips to the jaw of the fish. Carefully place in the water with the sinker before letting it descend to the depth it came from (usually the bottom or near to it).
4. Once at the desired depth give the line a quick jerk to open the fish grips and release the fish to swim away.

*"The quicker a fish is released the better its chances of getting back down despite the buoyant gas in their gut cavity. If a fish is lively and its gut cavity isn't too swollen, then it will probably be able to get back down on its own, but an exhausted fish with a swollen gut cavity will probably struggle to get back down to a depth where it can recompress."*

Bruce Hartill, NIWA fishery scientist

# Minimal IMPACT

## ON OTHER SEA LIFE

### RUBBISH IN OUR MARINE ENVIRONMENT

New Zealand has 15,000km of coastline. This is our playground. The actions we have on land also have an impact on the ocean. Every year tonnes of plastic finds its way into our waters. The majority of this is single use plastics such as food wrappers and containers, bottle caps and lids, plastic bags and polystyrene.

**Plastic is not biodegradable.** Once it gets into our seas, it stays around for a very long time.

Each year 100,000 marine mammals and 1 million seabirds are killed by rubbish.

Plastics can be full of toxic chemicals so when fish eat plastic pieces floating at sea, they absorb these toxins which become more and more potent with each step up the food chain.

Firstly, stop plastic getting into the ocean from when and how you fish, then look after your local stretch of coastline. Whether it is picking up rubbish you see, getting your friends to help, or organising an event for the whole community, every bit helps.



Photo by Sustainable Coastlines

**DID YOU KNOW:** MOST RUBBISH COLLECTED FROM OUR STUNNING COASTLINE IS MADE OF PLASTIC AND HAS ONLY BEEN USED ONCE. EG PLASTIC BAGS & FOOD WRAPPERS



## GENERAL

- Reduce your impact on the marine environment by reducing your plastic consumption at work and home.
- Don't discard plastic or unwanted soft baits over the side.
- PLEASE don't dump fish or human waste near shore, or near fishing grounds.

## MARINE MAMMALS

- Slow down around dolphins and whales.
- Stay at least 50 meters away from whales.

## SEABIRDS

New Zealand is a very special place for seabirds and fishing is a serious threat to the survival of several species. Here's a few things you can do to be 'seabird smart':

- **Be Tidy** - Keep your deck clean, cover your bait and remove bait from unattended lines. Take ALL your rubbish, line and hooks home with you.
- **Be Fast** - Set and reel your gear quickly.
- **Go Deep** - Sink your hooks and burley containers well below the surface.

- **Be Creative** - Use streamers, water pistols and distraction. Keep your rod tip low to avoid birds flying into the line.
- **Be Responsible** - If necessary stop fishing or move away.
- **Be Informed** - Know which birds are which, after all they can lead you to the fish.
- **Be Prepared** - Crush or remove barbs from hooks. Have pliers and side cutters on board.
- **Be Gentle** - Cover the bird in a towel before removing hooks or trimming line close to point of entry if swallowed. Once the bird has recovered, release it onto the water.

**There is power in numbers.** Making small changes to the way we live can have a positive impact on our marine environment if enough of us make the effort.



## DID YOU KNOW:

85 OF WORLD'S POPULATION OF 360 SEABIRDS VISIT NEW ZEALAND'S SHORES. WITH 27 FREQUENTING THE HAURAKI GULF IT IS ONE OF THE MOST DIVERSE HABITATS IN THE WORLD!





# The significance of seagrass

Scientists internationally consider seagrass meadows to be one of the most productive ecosystems in the world, ranked even ahead of coral reefs.

Research reveals sub-tidal seagrass meadows in northern New Zealand are important juvenile fish nurseries, particularly for snapper and trevally. This nursery value changes, depending on the depth and size of the seagrass bed, the coastline, and latitude.

An interesting factor to come out of the research was that the presence of seagrass does not always equate to higher abundance of juvenile fish or a rich mix of species when compared to local bare or sand habitats.

New Zealand's seagrasses have proven to be acutely responsive to environmental changes, especially those altering water clarity. That clarity is affected by sedimentation, chemicals, nutrient run-off from rural land and rubbish from city streets. It is no surprise then that the productivity of our harbours and estuarine environments has decreased over time ultimately affecting the abundance and diversity of fish.



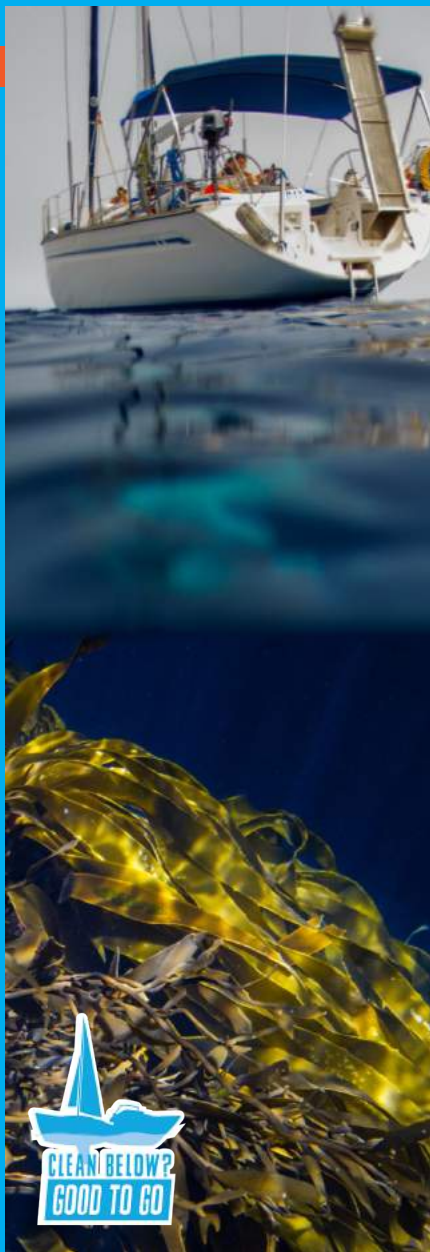
Artificial seagrass used in habitat experiments

## Help protect these environments

Scallop dredging is proven to have a negative impact on the sea bed. Diving for scallops is a far more environmentally friendly way to gather these delicious shellfish.



Papre in a Bay of Islands seagrass meadow



## Working together to stop the spread of marine pests

Protect the coastlines we love. Make sure your hull is checked and cleaned before you head away.

A CLEAN HULL PREVENTS MARINE PESTS FROM SPREADING INTO NEW PLACES AND INFECTING OUR VULNERABLE MARINE ENVIRONMENTS



Marine pests include Mediterranean fanworm

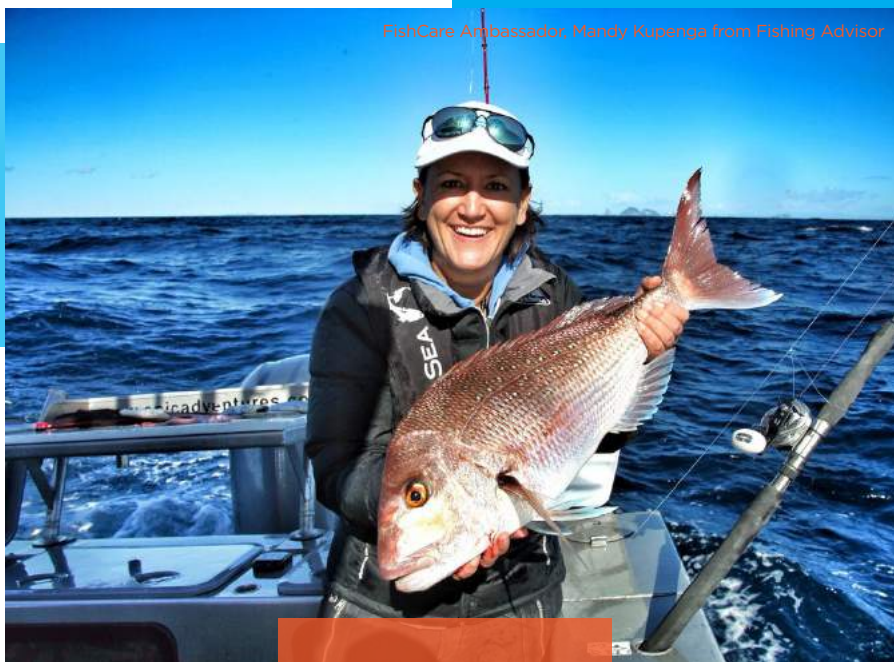
You're good to go if your hull has no more than a light slime layer.

**A dirty hull means you run the risk of being turned away from a marina,** failing a spot check, or infecting your favourite marine environment with marine pests.

Check out [marinepests.nz](http://marinepests.nz) for regional rules and marina requirements.

*Supported by: Auckland Council, Northland, Waikato, Bay of Plenty and Hawkes Bay Regional Councils, Environment Southland, Gisborne, Marlborough, and Tasman District Councils, Nelson City Council, the Department of Conservation and the Ministry for Primary Industries.*

FishCare Ambassador Mandy Kuperenga from Fishing Advisor



## Safety

THE COASTGUARD PROVIDE EXCELLENT COURSES AND RESOURCES TO HELP BOATIES STAY SAFE ON THE WATER.

- Before you go fishing, make sure you check your safety gear as well as your fishing gear.
- If you haven't already, get yourself sorted with a Coastguard Membership - it's great peace of mind knowing they have got your back with free assists -

they're your best mates out on the water.

- Check your local weather and if in doubt, don't go out.
- Logging a Trip Report with Coastguard Radio is a great way to tell someone where you are going and when you plan to be back.
- Before you hit the water, hit the website [coastguard.nz](http://coastguard.nz) for more information, tips and advice.
- Consider taking a Coastguard Boating Education course to learn the necessary skills to boat safely and know how to handle emergencies should something unexpected happen.
- The FishCare Safety Principle has been developed in conjunction with the COASTGUARD. New Zealand's leading boating safety organization.



# Utilisation of the catch

Learning to kill and chill your fish quickly is the secret to obtaining the best quality fish.

Some species deteriorate faster because they have higher levels of blood in their flesh (e.g. kahawai, skipjack tuna). Bleeding these species after capture helps retain the best possible condition.

When storing your catch, a two parts ice to one part seawater (2:1) slurry that covers the fish works best. Cooling the fish quickly to 2-10 degrees is ideal.

After 15 minutes in the slurry place the fish on ice in a separate container or in the fridge.

Avoid a thick ice slurry as this can chill fish below -2 degrees and begin freezing the muscle tissue. If you only have one container to chill and store the fish, a thin ice slurry can be the best way to cool and store your catch. Keep a bag of ice on hand to maintain the slurry throughout the day.

## PLANNING

Plan to process your catch as part of your fishing day. Dumping or wasting fish because you ran out of time to process what you killed is unacceptable.

Don't kill more fish than what you can utilize. Fish placed in a slurry are easier to fillet once left overnight. They can also last for several days, giving the fisher time to utilise the whole catch and share with friends and family.

**“Iki jime (spike to the brain) for most inshore species is best, some species require a spike directly above the head and some to the side of the head.”**





**IKI JIME IS  
THE QUICKEST  
WAY TO KILL  
A FISH AND  
MAKES FOR  
BETTER EATING**



IT'S ALL ABOUT  
**RESPECT** - WE  
NEED TO MAKE  
THE MOST OF OUR  
CATCH OR GIVE  
IT TO SOMEONE  
WHO WILL.



Photo courtesy of Digital Fish



## Utilisation of the catch



### > PREPARATION

A lot of good fish gets wasted. Snapper fillets are around 30% of the total fish weight, that means 70% of the fish is wasted if the frame, head and parts are thrown away.

If you don't use the heads and frames give them to someone who will relish them. [www.Freefishheads.co.nz](http://www.Freefishheads.co.nz). Is a website with local contacts who would love to collect fish heads and frames from those who want to give them away.



### > CONSUMPTION

After removing the gills and guts, please consider using cooking methods that utilize the whole fish. The backbone sometimes also known as the '3rd fillet' is often overlooked but can be dusted in flour and fried.

Methods for best utilisation include baking the fish whole (after also removing the scales) and cutting larger fish like king fish into steaks. Also steaming or boiling the head and frame to remove all edible flesh or smoking whole so the flaps, head and frame can be picked clean is a great way to utilise the whole fish.

# fishcare.org.nz

If you don't use the heads and frames give them to someone who  
will relish them

[www.freefishheads.co.nz](http://www.freefishheads.co.nz)

A website with local contacts who would love to collect fish heads  
and frames from those who want to give them away.



Help look after our fishery.  
If you see suspicious activity call

**0800 4 poacher**

**Thanks to our partners:**



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New Zealand Angling  
and Casting Association



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