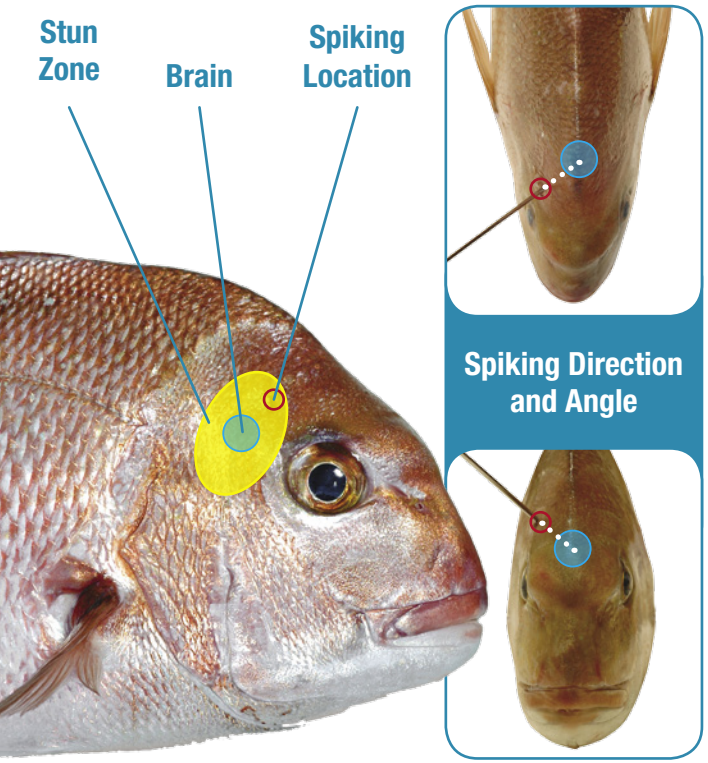

Chilling your catch after killing

The key to keeping fish in prime condition is immediate chilling after killing to a temperature slightly above the freezing point and maintaining this temperature until you eat it.

An easy way to chill your fish to optimise its quality **after killing** is by putting it into an ice slurry, which consists of ice and water in ratios of greater than or equal to 1:1 (ice:water). Kill the fish first - putting a live fish into an ice slurry before killing may actually **prolong its death**.

For big fish, opening the gut cavity first will help ensure even quicker cooling but avoid cutting into the intestine, which will release gut contents and lead to quicker spoilage. If the intestine is cut, remove it all and rinse before putting the fish into the ice slurry.

Releasing fish to give them a fighting chance

Besides barotrauma and gear choice, other issues to consider when releasing fish include:

Tight lines

Keep your lines tight and avoid slack. Having slack in a line increases the chances of deep hooking fish, even when using circle hooks. Gut hooked fish have much lower survival chances if released.

Air exposure

No matter what species of fish you catch, air exposure is harmful to the fish. You should do everything possible to avoid air exposure in any fish you plan to release. Every second counts. Try holding your breath while you have the fish out of the water – effectively they are!

Handling and nets

Simple – if you release a fish, handle it as little as possible and keep it in the water to avoid air exposure if you plan to release it. If you need to use a net, make sure it is of the knotless variety. The scales of the fish actually sit under the delicate outer layer of skin which can be easily damaged. Rough, knotted nets do more damage than knotless. It's best if everything that comes in contact with the fish is wet.

And if you have to pick up the fish, don't hold it by the mouth or tail and let it hang vertically. Support its weight by holding it horizontally, remembering to get it back in the water ASAP.

Developed by:
Panaquatic Health Solutions Pty Ltd

PHS PANAQUATIC

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Cover photo of snapper courtesy of Scott Gray
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Fishing for Snapper

(*Pagrus auratus*)

How to humanely kill the fish you keep... and give the fish you release a fighting chance

from a welfare perspective

VR FISH fish for the future

PHS PANAQUATIC

AUSTRALIAN ANIMAL WELFARE STRATEGY

We all love fishing for snapper, be it to get a feed or to simply be out on the water with friends. It is important though to fish responsibly, and that means being aware of the impacts our fishing can have on the fish we love.

This brochure provides information to help you fish responsibly and sustainably and still be able to take home a great feed.

To think about before you even start fishing...

Barotrauma

Divers coming up from depths can get barotrauma. Snapper too can be affected when caught at depths as shallow as 11m. The damage done can have short and long term impacts. Bringing fish slowly to the surface won't help either - unlike divers, snapper have a closed swim bladder which can expand dramatically as they come up from depth. Fish may swim away looking fine but still be affected and in bad cases can die, sometimes days or weeks later, if predators don't get them first. For spawning fish the stress of barotrauma may cause damage to the gonads (reproductive organs) and reduce egg quality, if eggs are released at all.

So - if you catch a fish from depth, know that it will likely sustain internal damage. The best approach when fishing from depths is to stop fishing when you've caught what you need.

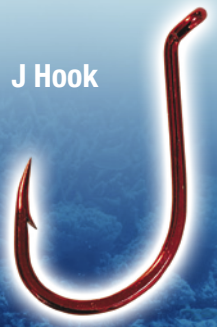
Gear choice

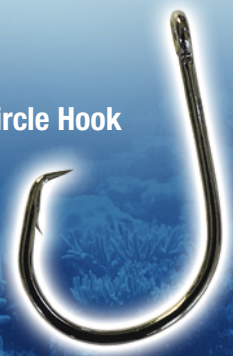
Duration of fight

The less time you take to land your fish, the better the quality if eaten and the more chance it has if released. Use gear that allows you to get your fish in quickly. Studies have shown that a proportion of fish that get exhausted during the fight will die if released. The proportion is greater the more the fish has to fight and the longer it is exposed to air after the fight. So minimise the stress you place on each fish you catch by getting it in quickly. It's better in all ways.

Gut hooking

Gut hooking greatly reduces the chance of survival for fish that are to be released. Using large in-line circle hooks will minimise gut hooking and also reduce catching of undersize fish. Avoid slack lines and remember that you need to change the way you set the hook when using circle hooks. Don't strike too hard; applying gentle pressure with the rod usually works by pulling the hook to the side of the mouth where it catches and sets.





Killing fish you want to keep

If you plan to keep your fish to eat, kill it quickly! It will taste better and it's better for the fish. Keeping in a live well will stress it further and it definitely should not be left to thrash around on the deck, even for a minute or two. Below are two humane killing methods to use. With each method, the heart will keep beating for a while even though the fish is senseless. Hence bleeding will still occur.

1. *Stun and bleed*

Knocking a fish on the head with a club or 'priest' is a quick and easy way to stun a fish and render it senseless. Hitting the skull at high speed and having sufficient weight in the club is important to jolt the brain, the internal movement doing the damage.

The area to aim for is shown in the diagram over the page. Once stunned, pith or spike the fish (see below) or bleed the fish by cutting the throat or cutting across one or both sets of gill arches. This will prevent recovery.

2. *Pithing or spiking ("iki jime")*

Spiking the brain ('iki jime') requires more skill and precision than stunning the fish. It immediately destroys the brain though. The position and angle to insert the spike is shown in the diagram. Further details on spiking of snapper can be found at **www.panaquatic.com**

Details on the iki jime process and brain locations for other fish can be found at **www.ikijime.com**