

Community based sustainable fishing education project

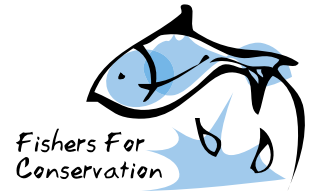
## Conserving Your Catch

### Simple and practical ways to make sure that fish returned to the water survive

Recreational fishing is socially and economically very important to South Australians. There are increasing pressures on South Australia's fish stocks and the environment that they depend on. With the population of many fish species in decline, it is essential that recreational fishing practices (such as fish handling and tackle selection) ensure we protect fish for the future. There are good reasons for recreational fishers to return some or even all of their catch to the water.

#### There are several reasons why anglers will return their catch to the water:

- To abide by laws regarding minimum size limits, maximum size limits, bag/boat limits, closed seasons, and protected species.
- Because the fish is not a target species, or is too small or undesirable to eat.
- Fishing for sport only, rather than for eating. This is usually referred to as 'catch and release' fishing.
- When participating in 'catch and release' tournaments.
- When tagging and releasing fish for scientific studies.
- A genuine conservation interest leading to the return of even legal sized fish (see the companion FFC Info Sheet #2 *Why Should We Sometimes Let The Big Ones Go?* for more info).



[www.ffc.org.au](http://www.ffc.org.au)

#### Released Fish:

Many anglers are concerned whether the fish they release actually survive. Studies have estimated that up to 97% of deaths after release for some marine species result from poor handling or deep hooking (where the hook or lure lodges in the gut or throat rather than in the mouth). Fortunately, there are a number of simple measures you can take to ensure maximum fish survival (see overleaf).

#### Some causes of released fish deaths from angling:

- Poor handling (rough and/or damaging)
- Hook damage
- Barotrauma (being rapidly moved from deep water to the surface, like 'the bends' suffered by SCUBA divers)
- Exhaustion from long playing times
- Capture stress (leading to disease, or capture by fish or other predators)

Simple things like handling fish with a wet towel can greatly increase the chance of a released fish surviving to contribute to future generations. Turn over this sheet for some simple and practical tips on what you can do to increase released fish survival.



If fish you are going to release are removed from the water for photographs be sure to support the weight to avoid damage to the fish.

We all love our fishing and we want the fish we release to survive, so FFC has compiled some of the simple and practical things that everybody can do to increase fish survival.

## Handling tips and guidelines for sustainable fishing:

- Decide quickly if the fish is to be released in order to reduce time out of the water. If possible, remove the hook(s) in the water.
- Never hold a fish with dry hands, as this rubs off the protective mucous layer and may damage the scales. Wet your hands, use a wet towel or rag or use a fish grip device. Don't let the fish flap around the bottom of the boat or on the jetty/ground as injured fish are unlikely to survive.
- Quickly measure your catch (if required) using a mat or ruler, on a wet towel, wet foam or vinyl.
- Support the fish evenly during photography and release to avoid internal or spinal damage.
- Gently, but quickly, remove the hook. Use of needle-nosed pliers makes this easier, in many cases you will not need to touch the fish or remove it from the water.
- If the hook is deeper (in the throat or gut), simply cut the line as close as possible to the hook.
- Release fish, crabs or other animals and plants in the same habitat from which you caught them. Holding fish and then releasing at the end of your trip reduces survival by more than 30%, as well as potentially spreading disease and parasites.
- Keep sea creatures out of direct sunlight, as it can damage their eyes and dry out the gills.
- Large fish can sometimes benefit from being 'revived' by holding them in the water by the mouth and moving them to force water past their gills.
- Unattended lines are more likely to result in deep hooking and increase the possibility of accidentally hooking birds and marine mammals. If you leave your line, reel it in first. See Info Sheet #3 *Recreational Fishing and Marine Mammals* for more information.



The use of circle hooks (left) and pressing down barbs with pliers to create barbless hooks (right) can make releasing fish easier and increase survival rates for released fish. Barbless hooks are also safer for anglers.

## Tackle choices:

It is important to select the correct tackle for the type of fish and the location. Having a clear idea what species and size of fish you want to target and choosing the right tackle can significantly increase your fishing success rate, while minimising stress to unwanted fish (bycatch) and undersize specimens.

- **Hook size** – research recommends selecting the maximum hook size possible for the target species. This decreases the likelihood of catching small or undersized fish and of fish swallowing the hook. Larger hooks can reduce the number of small fish that have to be released and make the hooks easier to remove.
- **Barbless hooks** – Researchers and experienced fishers say that barbless hooks do not impact significantly on the catch or landing rate. You can make a hook barbless by compressing the barbs with pliers or filing them down.
- **Use an appropriate breaking strain line** to minimise fight time and associated stress to the fish. Fish stress and mechanical damage can reduce eating quality and can increase spoilage rates.
- **Circle hooks** are appropriate to many styles of fishing. Circle hooks have a rounded bight, and significantly reduce the occurrence of deep hooking and fish injury in some species. This increases catch-and-release survival and also reduces the chance that you will lose your tackle.
- **Use a knotless net to land fish over a kilo.** Knots can damage fish scales, eyes and fins. Never hold a large fish up by the line only.
- **Never use a gaff on fish expected to be released.** Large fish, especially BOFFFF (Big Old Fat Fecund Female Fish) specimens, should not be removed from the water at all.



Australian Government

Department of Agriculture, Fisheries and Forestry

Recreational Fishing Community Grants Programme



Fishers For  
Conservation

www.ffc.org.au

This information sheet has been produced by Fishers For Conservation as part of the Community Based Sustainable Fishing Education Project and was made possible by Federal Government funding as part of the Recreational Fishing Community Grants Programme.