



Research & Education

What happens to the ones that get away?

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Anglers release many of the fish they catch. A recent survey estimated that more than 11 million bream and pink snapper alone were caught and released from recreational hook-and-line fisheries in Australia during 2000/01, many of them in Victoria.

How many of them survive, and ways to improve their chances of survival, is to be studied in a new project to be undertaken by scientists from Marine and Freshwater Systems PIRVic (Primary Industries Research Victoria) Queenscliff.

For most species there is a minimum size that fish have to reach before they can be legally kept. Bag limits are also used for many species to limit the number taken by an angler on any one day. Many anglers also fish for the thrill of the chase, and are happy to let the fish go once the chase is over. Whatever the reason for releasing fish, the assumption is that all or most of these fish survive.

The leader of the project, Mr Sandy Morison, says that is important to know if this assumption is correct.

"We think that snapper and bream are very hardy species, and that nearly all fish released survive. But if we are wrong on this, we want to find out how to improve their chances of survival," Mr Morison said.

The project has been developed as part of a Released Fish Survival Initiative established by the Fisheries Research and Development Corporation, which is funding the project jointly with Fisheries Victoria.

The work has been given a head start with some funds provided by the Victorian Recreational Fishing Grants Program (see Research and Education note 563). These

funds have been used to conduct a pilot project over the last 12 months, which has shown some promising results.

"We have been able to run some initial experiments using our volunteer expert anglers, that has helped us to work out the best way to do this type of study," Mr Morison said. "We plan to continue working with anglers, to make sure our experiments reflect what is really happening in these fisheries."

Many factors can affect the survival of fish after hooking and anglers can influence this in a number of ways including:

- physically exhausting the fish during a strenuous capture,
- causing damage to the fish when handling them to remove hooks or gear, and
- selecting gear which may result in hooks penetrating and damaging vital organs.

Other factors outside the angler's control that can influence a fish's survival after hooking include fish size, water and air temperature, dissolved oxygen, salinity and turbidity.

The study, to be conducted over two years, will primarily concentrate on those factors that anglers can control. Work in the first year will estimate the post release survival for both snapper and bream caught by the hook and line fishing methods commonly employed by Victorian anglers. If found to be necessary, in the second year Mr Morison and his team of anglers will develop and test changes to gear and handling methods to improve the survival of the fish.

The results of this project will lead to an improvement in the survival of fish released after capture by hook-and-line,



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which will contribute to the ecological sustainability of fish stocks.

Ultimately these results will be used by Fisheries Victoria to validate and refine its current management protocols.

For more information about this project please contact Mr Sandy Morison at the Marine and Freshwater Systems PIRVic Queenscliff on 52580232.

Fisheries Research and Education Notes are available on the web at the following address:

www.dpi.vic.gov.au

Follow the prompts to Fishing and Aquaculture and then to Publications and Fisheries Notes. The notes are listed under the heading MAFRI Research and Education.

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