Why not close the snapper fishery during the spawning season?

Then there would be more fish able to spawn, more eggs in the water and more fish in the future.

The simple answer is that more eggs does not mean more fish will survive from that breeding season.

Fish Biology

We are not talking sheep here. There is no lambing percentage where the number of offspring is directly related to the number of breeding females.

Female snapper, like most fish, produce 100,000s even millions of eggs each, but the mortality of eggs and juveniles is extremely high. Almost all of them will die. However in warm years survival can be 10 times, even 100 times higher than cold years. Fish have developed a breeding strategy that is more dependant on environmental conditions than the number of breeding adults. This is to take advantage of good years.

It's a gamble like rolls of the fruit machine. Some years they hit the jackpot, when all the favourable factors line up. Like:

Good Summer	No storms	Warm Water	Plenty of Food	Few Predators

Even so, if too many young survive, come winter there will be much less food and too many mouths to feed. Many will starve and mortality could skyrocket.

Does it matter when you fish?

What is the difference if you catch a female snapper during spawning or if you catch a snapper a week before spawning? Surely it will have the same effect. That fish wont spawn. What about 6 months before spawning? You still remove it from the breeding population. What is important is that each year the reproductive potential of the population is sufficient to take advantage of the good seasons. Some very successful snapper spawning seasons have occurred in the 1990's at the current stock size. 1991, 1995 and 1996 were all strong year classes.

Snapper do not spawn over a set period of time, spawning is dependant on things like, water temperature. Also fish may spawn several times during the spring /summer period. It would be impossible to forecast what sort of summer we are expecting in order to forecast when to allow fishing to avoid catching spawning fish.

Management Concerns

You can convince some people that there is no biological reason that spawning success will be improved by a ban on fishing during the snapper-spawning season. Often their real concern will soon surface.

"But they take too many" they say. Snapper school season arrives and those commercial fishers, or those guys down the road, or those charter boats, they catch heaps "They are

going to wreck it". But these are management issues – more about the sustainable yield, quota and bag limits – not issues about spawning success.

A lot of time and money (mostly funded by cost recovery from commercial fishers) is spent on making sure that snapper is being fished sustainably. But it is a big fishery in New Zealand; about 13,000 tonnes a year are landed nationwide. That's a lot of fish. Probably 12 million snapper taken per year and about half of those are by recreational fishers. Still the fishing has been very good over the past summer of 2002/03 in the Hauraki Gulf but not so consistent in Northland or Bay of Plenty. Current stock assessment is that the main fisheries are rebuilding.

A ban on fishing for snapper during the spawning season would be a disaster. How would you manage it? For example, where could you fish in the Hauraki Gulf and avoid catching snapper in spring? You would catch them just about everywhere. Many fish could survive catch and release but you would also have to throw back the hook damaged ones to die. Enforcement on the boat ramps and marinas would be a nightmare. The only way it could work would be to close the Gulf to all fishing in spring. Imagine the reaction from the fishing industry, their lawyers, and the Treaty of Waitangi Fisheries commission. And what about all the recreational groups, fighting hard to defend our right to fish in the sea? They would most likely view this as a huge loss to the public access right. If the same amount of fish were taken out of the fishery over the whole year then there would not seem to be any benefit to outweigh the huge disruption of closing areas during the spawning season.

Ends

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