

## Australia: the failing Grey mackerel fishery in World Heritage Waters of Far North Queensland – an Update

This newsletter has recorded community observations, since 2006, relating to the ongoing depletion of a fishery of grey mackerel (*Scomberomorus semifasciatus*) in inshore World Heritage Waters of the Great Barrier Reef Marine Park. This seasonal fishery is located at Snapper Island, 1½ kilometres off Cape Kimberley at the mouth of the Daintree River. This is part of the only place in the world where two World Heritage Areas meet and within 'Port Douglas Smooth and Partially Smooth Waters' (<http://www.msq.qld.gov.au/>).

Over a five year period, local line trolling fishers have watched the size of "their" seasonal grey mackerel schools at Snapper Island shrink. According to local born and bred fishing guide, Jamie Beitzel, son of a former commercial grey mackerel line fisher, this has been from "the size of two football fields, to tennis court size, to table tennis table size, to no schools at all in 2008".



**Plate 1: Part of a morning's catch, pre-2004**

This decline has followed the advent of Cairns-based "offshore" gillnetters moving to larger boats and targeting inshore grey mackerel schools from around 2003. This is despite a gentlemen's agreement within the Douglas community not to net grey mackerel following learning of the collapse of a grey mackerel fishery at Reyard's Reef, near Bowen, in 1971. This followed just three years of netting

(De Lacey, 2005) and the fishery has never recovered (Allan Petersen 2009, *pers com.*).

Fortunately some fish did aggregate near Snapper Island during a greatly shortened season in 2009. However despite a concerted campaign by the community, including the remaining two commercial mackerel line fishers, Col Patterson and Mark 'Scrubber' Harris, and to the great dismay and frustration of fishers in the Douglas Region, Queensland Primary Industries and Fisheries (QPI&F) allowed unlimited 'out-of-town' netting at Snapper Island throughout the short period in 2009 when the greys did aggregate.

Col & Scrubber stubbornly refused to quit fishing for greys in 2009 during the 3½ months that used to be the grey mackerel season, despite running at a heavy loss throughout that period. They fished because they had three objectives in addition to catching fish: firstly to record the presence or absence and size of the grey mackerel school (or schools) in the area, secondly, to observe the activities of the net boats and their grey mackerel catches and finally, to obtain samples for a government research project.

In 2009, their entire season's catch of greys amounted to little more than they would have caught over two days' fishing in a "normal" season prior to 2004 (see Plate 1). Most fish caught by Scrubber were clearly approaching breeding condition. The one shown in Plate 2, caught on 12.08.2009 had late developed stage F4 ovaries (maturation stage based on description by Mackie & Lewis, 2001).



**Plate 2: Grey with late stage 4 ovaries, 12.08.09**

Towards the end of a 'normal' season in the past, experienced troll fishers using echo sounders have observed the school of Greys just off Snapper Island to remain close to the sea bed at given locations on a coral rubble slope at around 10 – 20 m depth for a number of days (Owen Suffolk *pers. com.*). At such times they do not respond to a trolled lure but of course are highly vulnerable to the 600 m and 1.2 kilometre bottom-set monofilament gill nets.

Owen suspects this is the time they spawn.

A Queensland Seafood Industry Association (QSIA) net delegate, one of the new grey mackerel offshore netters, claims never to have caught a grey mackerel in ripe condition. Is that claim credible or does it mean the greys are all caught before they reach that stage? Alternatively does it mean that constant harassment by gillnets so disrupts their social and/or physiological development at their localised aggregation sites, that development to spawning condition is severely inhibited?

Interestingly none of the Cairns-based grey mackerel net fishers have provided catch samples to the research project mentioned above. That this was not a condition of their netting licence is clearly a serious omission by QPI&F.

Cameron & Begg (2002) advise that mackerel stocks should be managed with "utmost caution". Despite this call for caution, current sustainability and by-catch considerations as to why the Snapper Island Grey mackerel fishery should be off limits to the offshore net fishery are too numerous to mention here.

Stalwarts in the DP&F and/or Ministry still maintain the massive reduction in numbers of greys observed at Snapper Island is an allocation and not a sustainability issue. This is despite the fact that they have no idea of the stock size, no indicators of stock abundance and no idea where the grey mackerel go outside the three months they aggregate (Welch *et al*, 2009) at known, accessible inshore grounds, often adjacent to reefs and headlands and prior to spawning.



**Plate 3: Dead dugong with net marks**

In contravention of the criteria required for certification of the fishery under the Australian Commonwealth Environmental and Biodiversity Conservation Act (1999), Douglas community commercial and recreational fishers alike are convinced offshore netting drowns dugongs and turtles. This writer is equally convinced, having drowned two dugongs in gillnets in PNG in 1979.

A freshly dead dugong (Plate 3) was photographed by Dr Tony Ayling between Snapper Island and Cape Kimberley, on 3

April, 2009. Tony was studying coral at Snapper Island at the time. He found the freshly dead dugong in apparently excellent condition floating just a few hundred metres away from where he had observed an "offshore" netter fishing for the previous few days. Close examination of the enlarged photograph reveals regular line-like depressions in the skin corresponding to large mesh net marks.

A press report states the netter involved emphatically denied being responsible for the dugong's death, claiming it must have drifted in from the south since "*there was a strong northerly current*". However the very reason he was able to fish the narrow channel between Cape Kimberley and Snapper Island at that time was because it was neap tides. It had been flat calm for the previous week so it was probable there had been **no** strong current.

Government has given the Douglas community the opportunity to participate in new fisheries co-management talks that may take three years to deliver results. Without appropriate and immediate action, this period may well see the final demise of this Snapper Island Fishery. As a condition of continuing co-management talks, we are calling for a three year moratorium on all out-of-town netting in the Port Douglas Smooth and Partially Smooth Waters.

### References

**Cameron, D & G. Begg 2002.** *Fisheries biology and interaction in the northern Australian small mackerel fishery. Final report to the Fisheries Research and Development Corporation Projects 92/144 & 92/144.02. Fisheries Research & Development Corporation, NT DPI&F, QDPI&F. 210p.*

**De Lacy, Ralph 2005.** *The North Queensland Fishing Eldorado, Memoirs of a Gulf Fisherman. Sid Harta Publishers, Hartwell, Victoria. 372p.*

**Mackie, M. and Lewis, P. 2001.** *Assessment of gonad staging systems and other methods used in the study of the reproductive biology of narrow-barred Spanish mackerel, Scomberomorus commerson, in Western Australia. Fisheries Research Report No. 136, Department of Fisheries, Western Australia.*

**Welch, D. et al. 2009.** *Determination of management units for grey mackerel fisheries in northern Australia. Final Report, Fisheries Research and Development Corporation Project 2005/010, Fishing and Fisheries Research Centre Technical Report No.4. James Cook University, Townsville, Australia. 158p.*

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