

The Nature Coast Marine Group Inc (NCMG)



Submission on the Discussion Paper for Grey Nurse Shark Protection

The Nature Coast Marine Group Inc (NCMG) is a community organisation based in the Eurobodalla (Batemans Bay to Narooma) area of the NSW South Coast. The NCMG was established in 2006 and has approximately 200 members, most of whom are local residents. Its objectives are to promote awareness and conservation of the marine environment. It maintains a wide range of activities, including scientific research, school excursions, rock shelf walks, snorkelling, kayaking and other outings, film nights and talks, maintenance of a website (www.ncmg.org.au) and public information through the media and preparation of educational materials.

Our area is near to two grey nurse shark aggregation sites, the Tollgate Islands and Montague Island. Some NCMG members are scuba divers and have had opportunities to observe the sharks in their natural habitat. The NCMG has been following the situation of grey nurse shark conservation for some years and hosted a public information meeting several years ago in Moruya, at which representatives of Fisheries NSW made a presentation outlining research on and the status of the sharks. As an organisation committed to conservation of the marine environment, the NCMG is concerned that every effort should be made to ensure the survival of the grey nurse shark.

Proposed protective measures

The Nature Coast Marine Group considers that the following measures should be taken to protect the grey nurse shark population so as to give it a chance to grow. Anything less risks condemning the species to extinction within the next few decades:

- The number and location of critical grey nurse shark habitat sites should be reviewed so that all sites at which significant numbers of sharks aggregate are afforded the highest level of protection. The Fisheries NSW *Discussion Paper for Grey Nurse Shark Protection* lists ten aggregation sites that were declared in 2002 as critical habitat and that are afforded varying levels of protection. These, however, cover only part of the grey nurse shark population. The Cardno population study indicated that there is a number of sites where significant numbers of sharks were found but which were not previously regarded as critical and that therefore are not covered by any protection measures at all. The Nature Coast Marine Group proposes that these sites should also be declared as critical habitat and afforded the same level of protection as other sites. We note that the Cardno study gave undertakings of confidentiality to certain informants who provided the location of some of these sites. NSW Fisheries should enter into discussion with these informants so that these confidentiality undertakings should not frustrate the need for adequate protection. In the light of the

danger to sharks from accidental hooking, it would clearly be inappropriate for sharks at some sites to be exposed to potentially harmful fishing activity.

- The set of critical habitat sites should be kept under review. Any positive developments relating to grey nurse shark conservation, such as an increase in numbers at particular sites, an extension of the time at which sites are used or the identification of new sites should be accompanied by a corresponding extension of protection measures.
- Protection measures should be consistent across for all aggregation sites. The minimum protection measure should be that all fishing with bait should be prohibited for a sufficient area around the critical habitat site so that it would be unlikely that a shark would suffer accidental harm. In view of the fact that the characteristics of the sites vary in terms of the numbers of sharks that use them, the time of year at which they are used and whether or not they are in marine parks, we recognise that the objective of consistent protection across all aggregation sites could be achieved by a regime of measures that vary from one site to another. Where a critical habitat site with a permanent grey nurse shark population is located within a marine park, that site should be designated as a sanctuary zone with boundaries preferably set well outside the critical habitat site.
- The Cardno population estimate protocol should be repeated at regular intervals to provide an authoritative picture of the effectiveness of protection measures.
- The NSW Government should provide adequate resources to maintain an effective research program on all aspects of grey nurse shark biology and status. This should include:
 - the impact of fishing and diving on grey nurse shark populations
 - the status and availability of grey nurse shark prey species
 - the artificial breeding program.
- The NSW Government should take action to encourage consistency with other relevant jurisdictions, i.e. Queensland and the Commonwealth, to ensure that comparable high levels of protection measures are applied in waters for which they are responsible.
- The system of marine parks in NSW should be expanded and strengthened, so as to promote a generally healthier and more natural marine environment.
- The NSW Beach Meshing (Bather Protection) Program should be reviewed, with the objective of removing the risk it poses to grey nurse sharks and other marine animals.
- The NSW Government should support a public information program, targeting both the general public and interest groups, to encourage wider awareness of the plight of the sharks and measures being taken to protect them.

The broader picture

The NCMG believes it is important that the discussion about protection of grey nurse sharks should not get sidetracked into quibbles about the precise size of the shark population or the merits of various anecdotal claims. In the past, this has diverted the discussion from a properly robust approach to what needs to be done to address the central problem. Having reviewed most of the major scientific papers produced over the past 15 years, the NCMG considers the broad facts of the situation are clear:

- The grey nurse shark is a slow-growing and slow-reproducing species that is vulnerable to human impact. As an apex predator, it occupies a key role in maintaining marine ecosystems.
- The number of grey nurse sharks has plummeted over the past 50 years. They were once plentiful on the East Coast of NSW but various fishing practices and the beach shark netting program has reduced their numbers. The most recent and authoritative estimate (Cardno Ecology Lab study) presents several numbers, depending on assumptions and degree of confidence, but all are below the level desirable for long term persistence of the species. While there is still a long way to go, it is encouraging that the new estimate suggests that the population of grey nurse sharks is not as low as it was believed to be a few years ago.
- The grey nurse shark is listed as ‘critically endangered’, by which is meant ‘faces an extremely high risk of extinction in the immediate future’.
- Grey nurse sharks will take baited hooks, with potential lethal consequences. Their reproductive rate is so slow that non-natural fatalities will prejudice the survival of the species.
- Fish Rock is a major aggregation site. It does not enjoy protection from fishing with bait. The incidence of hooking observed at Fish Rock is higher than that at other sites.
- There is still much that is not well-understood about grey nurse shark biology.

The need for robust protective measures

Australia has a sorry history of allowing many species of fauna to become extinct, largely as a result of human action. Australia’s people and governments are now committed to protecting the country’s biodiversity. In addressing terrestrial species, the NSW Government has stated that ‘the conservation of biodiversity, and in particular threatened species, is an important part of protecting our natural heritage’. Reflecting the reality that grey nurse sharks move between various jurisdictions, Australia has a national grey nurse shark recovery plan. So far, however, the action taken has been inconsistent, in that different levels of protection apply from one place to another.

Options for protective measures that are both realistic and likely to be effective are limited. The most important step that can be taken is to reduce the risk of accidental hooking. In seeking to build community support for action to protect the sharks, it is natural and desirable that there should be a process of consultation with interested organisations and individuals. However, the consultation should not become a negotiation that seeks to find

compromise outcomes. The only scientifically valid approach is to work from the science and afford the maximum realistic level of protection to the grey nurse shark population. Such an approach should not be watered down to suit non-scientific interests. The NSW Government has stated that it wishes decisions on marine conservation to be based on sound science. The science – and the problem – is very clear.

There may be claims that, by limiting fishing in some areas, protection measures will adversely affect the economies of coastal communities. These claims should not be accepted at face value. Similar claims were made about the introduction of marine parks (in our area, about the Batemans Marine Park) and experience has shown these to be largely without foundation. Tourism in our area has continued to prosper, with many people seeing the existence of the Marine Park as a value in itself.

Indeed, grey nurse sharks have an eco-tourism value. In many places where they aggregate it is easy for scuba divers to observe them. In some places in Australia and elsewhere, the presence of other species of shark has become a major tourist attraction. If the numbers of grey nurse sharks were to increase, there is a prospect that this could bring benefits to coastal communities. This would imply a need for on-going monitoring to ensure that the visitations by divers did not disturb the shark populations.