Submission

Jervis Bay Marine Park
Zoning Plan Review

June 2008

The Recreational Fishing Alliance of NSW

"Promoting Sustainable Fishing"

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The Recreational Fishing Alliance of NSW greatly appreciates and acknowledge the efforts of those organisations and fellow recreational fishers who support the greater recreational fishing fraternity and take time out from their chosen recreation to provide or produce responses to such public enquires.

We wish to congratulate other organisations such as ANSA NSW, the NSW Fishing Clubs Association, the Underwater Skindivers & Fisherman's Association and The Australian Land Based Anglers Association for all their efforts.

This submission has been prepared from email correspondence and discussions with recreational fishers, advisory committee members, who do or have fished the Jervis Bay area over the past several decades and would like to continue doing so for many more years to come.

RFANSW Position surrounding Marine Protected Areas

The Recreational Fishing Alliance of NSW (RFANSW) continues to work with agencies and research organisations to promote sustainable fishing practices, as many recreational fishers do support the conservation of fish stocks through fair and equitable access, along with sustainable use of a states publicly owned resource.

The Alliance do also acknowledge the aims and objectives of the Marine Park Act 1997, to conserve marine biological diversity and marine habitats, as well as providing for ecologically sustainable use of natural resources such as fish and marine vegetation in marine parks, by all person that wish to partake in recreational and commercial activities within a parks boundaries.

We believe that prior to the declaration for any Marine Protected Area the Government, its Departments and Independent organizations must instigate a lengthy and thorough series of surveys and investigations which will identify and detail all the marine habitats and activities, recreational and commercial within a proposed bio-region/area. Along with the state based environmental and climatic change impact research and surveys, the material will form a database baseline data set, that will be used to initiate thorough consultation with all stakeholders' user groups and the wider NSW public relating to any proposed changes to the areas activities.

Once this baseline data is established, additional risk assessments and modeling relating to the proposed 'shift of effort' from these zones to other areas along should occur and be supported with rigorous ongoing research, of the overall environment and habitat for the protected zones. It is important to capture through social and economic studies these impacts relating to such changes due to the 'shift of effort', as stakeholders should be offered a range of ongoing compensation strategies associated with these impacts and changes.

RFA do not support the current 'percentage base process' of total park area 'locked up' using zoned areas such as sanctuary zones. However like all user groups should good and rigorous research document clearly the impacts and changes providing such justification and other socio and economic factors must also be considered such as providing safe and accessible habitat for all stakeholder groups as well.

The Alliance will support the protection of representative areas of critical habitats using sanctuary zones, providing the scientific research and data supports protecting specific ecological communities, critical habitat or specific species, and these are not being used as de-facto fisheries management tools by the Marine Parks Authority or Government.

RFA believes that once specific research has identified a need for additional regeneration of marine biological diversity and marine habitats, then the process may also be accomplished using a variety of other methods in lieu of a 'total lock out', modeled to accommodate all stakeholders, such as;

- ***Rotating sanctuary zones when regeneration is complete,***
- ***Seasonal closures for spawning or migration of species,***
- ***Seasonal access to pelagic species,***
- ***Localised recovery plans for specific species,***
- ***Stock enhancement through localised breeding programs,***
- ***Habitat enhancement through the use/creation of artificial reefs,***
- ***Stock enhancement and recruitment through the use of fish aggregating devices;***
- ***Multi use sanctuary zones.***

Jervis Bay Marine Park

The Recreational Fishing Alliance has reviewed the submission document and makes the following general recommendations and comments relating to the proposed draft zoning plan

Access

The issue of safe access in all weather conditions is especially relevant to recreational fishers who fish the rocks and beaches within any Park and target seasonal, or highly migratory pelagic and other fish species. These fishers who practice activities like rock fishing and land based game fishing (LBG) move with the seasonal changes and migrating patterns of fish along the coastline. Whilst shore based and boat fishing is a year round activity, land based game fishing generally only occurs in a 4-6 month season when the pelagic fish are following the Eastern Australian Current (EAC) and being pushed close in around deep ocean rock platforms.

Access for LBG fishers within the Park is severely limited by de-facto closures imposed by external agencies. Access to the Habitat Protection Zone on the eastern, ocean side of Beecroft Peninsular is greatly reduced by the Department of Defence and access to the Habitat Protection Zone off Bherwerre Peninsular on the south side of Jervis Bay is severely limited under the Booderee Park Management plan although is has occurred there for many years.

Currently access to the Habitat protection Zones for LBG fishers from Crookhaven Bight to Wreck Bay is greatly restricted with approximately 70% of the ocean rock platforms within the Park and 30% off limits within Sanctuary Zones. Once you assess and include Department of Defence Land and over protective National Park management plans, LBG fishers have access to only 30% of the Parks fishable waters along ocean rock platforms. The overall reality is to access the deep ocean areas which that represents only 2% of accessible rock platform are suitable for LBG fishing.

The majority of fishers who are new to the sport cannot afford a boat and will always start fishing ocean rock platforms. Alternative spots are needed so fishers targeting these highly mobile pelagic fish are not concentrated and limited to one or two small areas. Safe, protected areas from the prevailing weather conditions are needed. LBG must not be forced to fish unsafe locations when the weather shifts or changes. The work that Alliance and RFANSW are doing surrounding rock fishing safety in conjunction with the NSW Government has revealed that safe, alternate rock fishing spots are needed to save lives, these fishers are not afforded the luxury of having a boat to fish elsewhere within Park boundaries. These rocky headlands need to allow easy safe access for fishing to at least 200m of the adjacent waters without any major gear restrictions.

Multi-use sanctuary zones:

Multi-Use specific sanctuary zones should/must be considered. Seasonal access to pelagic and seasonal fish stocks will allow fishers the opportunity to fish these areas during a specific period within a window that constitutes a Land Based Gamefishing season. November to April currently sees the East Australian Current pushing into Jervis Bay and along the ocean rocks. Multi-Use Sanctuaries like at Byron Bay MP and Great Lakes MP and similar to the Grey Nurse Shark Critical Habitats are already in operation within NSW and there is no scientific evidence linking interaction between these endangered species and the methods used by LBG fishers.

These current sanctuaries need to allow fishers to fish baits and lures that stay high in the water column and target the highly migratory pelagic fish species such as tuna and marlin that have made Jervis Bay a world renowned land based gamefish port.

Recommendations:

- There should be no major changes to the parks current zoning plans or boundaries unless sound research and methodologies, along with the scientific data completed to date fully support such a change. The documents provided for this review fail to deliver this and continue to be a rather large concern within the scientific community and respected scientists.
- Promoting Park Activities – RFA wish to seek changes to the way the park management guide the public in what activities maybe partaken within park boundaries. Recreational fishing whilst being the largest participation sport/recreation in NSW hardly rates a mention in any tourism or awareness material.
- Advisory Committee representation – RFA would support improving the way committee members engage the broader stakeholder groups that they represent. We understand that it is difficult to represent all stakeholders interests accurately, however the Marine Parks Authority needs to look at it consultation processes in with an aim to be more transparent to the public.
- Compliance and Infringement process – RFA's position is that the public are totally confused with this issue. We suggest changes to the Marine Parks Act, whilst it maybe acceptable for a large corporation to attain a large fine, it is different for an individual to accept if they challenge an infringement notice in a court of law that they may walk away with a criminal record for life, from a minor breach of a park rules or infringe a zone boundary.
- Sanctuary Zones (SZ) - RFA's position that the locations of all zones within JBMP remain in situ whilst more detailed and targeted research is completed and that a small portion of the sanctuary zones be modified to allow boat and land based fishers to target pelagic fish species, as detailed in this submission.
    - In general, SZ boundaries should be clearly identified where ever possible, they may require additional buoys and signage allowing all users (in particular visitors) to become more aware and are often found slightly inside the zone and are therefore liable to penalty. It is understood that GPS points should only be used as a reference, recent media and the government debate has highlighted the accuracy issue and several others surrounding such requirements for boaters or shore based fishers to acquire an accurate electronic GPS device.
    - St Georges to Steamers - RFA supports the suggestion to alter the Eastern SZ boundary to go due south from Brooks rock, allowing fishing in the shelter of Steamers Bay in strong NE winds.
    - Point Perpendicular to Crocodile Head - RFA supports the suggestion to alter this SZ to a 'special purpose zone' allowing the seasonal trolling of lures by boat based fishers seeking pelagic species that frequent the area. A similar zone was is in use in eth GLMP. Closure of the Weapons Range

has severely limited terrestrial access to the Habitat Protection Zone north of Crocodile head. Detailed consultation with Defence Force and fishers will be necessary to determine a course of action. It is also requested that the southern boundary be designated more clearly by additional buoys and signage allowing visitors to become more aware and who are often found slightly inside the zone and are therefore liable to penalty.

- Huskinsson – RFA supports the suggestion to introduce a 150m Habitat Protection Zone off Sharknet Beach to allow families to fish from the beach in this zone. The people who would use this area are holidaymakers often with limited skill and equipment and would have very little, if any, impact on stocks or habitat. This is no different to a similar zone in the Byron Bay MP south of the Brunswick River.
- Access for Land Based Game Fishes - The Marine Park Act allows for ecologically sustainable use of natural resources (fish) and provides for public enjoyment of marine parks. Fisheries management of the recreational fishing sector is constantly being reviewed, and with no impacts on sedentary or inactive recreational fish species and with no recreational species under threat of collapse, the ecologically use of fish within marine parks should be allowed to continue. The targeting of pelagic and migratory fish stocks is sustainable under the current regulations. Critical Habitat Zones are already in operation and Habitat Protection Zones are used extensively within the marine park.

- General Use Zones (GUZ). RFA supports no changes as these zones were initially established to allow minor commercial fishing activities to continue within the park boundaries. Recreational line fishing within the NSW Bag, Size and Possession limits does not have the devastating effect of trawling or other commercial fishing activities. There are ongoing issues with trawlers extending their turnaround into adjacent Habitat Protection Zone and trawling occurring outside designated areas which should require additional park compliance activities and strategies. It is noted that some marine parks have been supported with no trawling and limited commercial fishing access, if this is case and altered for JBMP, then any commercial fishers must be duly compensated.
- Special Purpose Zones (SPZs) – RFA has no objections to the current SPZs but serious consideration should be given to other comments made within this submission when making provision for a SPZs, where appropriate boat maintenance & safe mooring facilities can be developed. Jervis Bay is utilized by many small boat owners who are perhaps not maintaining their vessels appropriately and could see issues of pollution from damaged or unseaworthy boats, death or disablement of vessel crews if boats are used in unsafe condition, or from accidents/incidents that cause damage to vessels. The access to the mouth of Currambene Ck is problematic due to the shallowness of the entrance. Dredging or removal of rocks should be undertaken to provide safe entry & egress from the only place where sewer pumpout & transfer of fuel, supplies or passengers can be undertaken by medium to large vessels.
    - Fish Attracting Devices (FAD's) – RFA is supportive of NSWDPI's and the NSW Recreational Fishing Trusts forward planning to look at and manage

the implementation of artificial habitats, for inshore or off shore areas. These type of devices assist greatly with the creation of new habitat for all marine life, as well as spreading 'fishing effort' from SZ and other areas across these additional new habitat areas.

- Rotating no-takes zones. The Legislation is rigid in terms of no-takes zones, a far greater benefit would be gained from no-takes zones that would be rotated, allowing for the recovery of certain degraded areas. These no take, regeneration zones could also exceed the prescribed 20% paper model that the Government has relied upon. Rotating zones would utilise artificial reef systems and FAD's to regenerate areas. The rotating no-take zones would rely on additional, relevant research to determine the degree of rejuvenation before rotating and targeting another area for rebuilding.
- Multi-use no-take zones. Current Habitat Zones (CHZ) for Grey Nurse Sharks (GNS) see multi use zones utilised to effectively manage the interaction fishers have with the GNS. Regulations ban the use of wire and bait at anchor within the CHZ, but allows trolling, lure fishing, fishing off the rocks and a myriad of other activities, including spearfishing. There are also multiple use areas within the New South Wales Freshwater fishing regulations, with Blue Ribbon Catch and Release Rivers, Fly or Lure only sections and several different bag limit regulations for the same species. The same principles need to be applied to any sanctuary or special use zone within a marine park.

Other issues that must be addressed in detail within the plan include;

- Stock and habitat enhancement,
- Providing safe and accessible access to fish habitat,
- Localised recovery plans,
- 'Shift of effort' from proposed/current sanctuary zones.

RFANSW will attempt to clearly show that the lack of any significant benefit that the sanctuary zones have delivered clearly indicates that more time is needed to observe. RFANSW is also concerned that no effective base line or pre-sanctuary zone based research has been completed prior to these zones being declared.

Other patterns observed over the monitoring period included divergence between fished and non fished zones for the abundance of invertebrate gastropod Astralium tentoriformis and the total cover of the common kelp Ecklonia radiata. As for the fish results, more time is required to properly determine the biological significance of these trends. (Barrett et al. 2005)

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett et al. 2005)

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett et al. 2005).

RFANSW notes that no protection can be offered to the highly migratory pelagic fish species within the confines of the JBMP.

It is the RFA's position that the locations of all the zones within JBMP remain in situ whilst more detailed and targeted research is completed and that a small portion of the zones be modified to allow boat and land based fishers to target pelagic fish species.

Lynch and Barret have both clearly demonstrated that more time is needed and that the opportunities to protect migratory pelagic fish stocks within the Park are limited or non-existent.

The race for a percentage based Marine Park meant that sound research was overlooked and due process was ignored. RFANSW does not want a repeat of the same situation where the JB MP is seen to be playing catch up with other percentage based Marine Parks in NSW. One of the most concerning aspects of this whole scenario is that key JB MP staff are on record as saying **"that fishers "won" the submission process, with few heavily fished areas closed to fishing"** with regard to the last submission process and RFANSW is extremely concerned that the JB MP will now attempt to play catch up and lock up even more areas to recreational fishing without any sound or current research.

The Alliance continues to consult with many local fishers in the area and many of its affiliated associations and fishing clubs. It will continue to undertake further consultation with the Marine Park Authority in order to achieve a satisfactory outcome for recreational fishers of NSW and the biodiversity in the regions zoning plans, attempting to preserve, protect and manage such areas.

The following comments are in response to the invitation from the Marine Parks Authority (MPA) to provide a submission on the Draft Zoning Plan (DZP) for the Jervis Bay Marine Park (JBMP). The submission layout has followed the format provided on the submission form.

This submission is not confidential.

This submission is being made by the Recreational Fishing Alliance of NSW and will be made available to the following Recreational Fishing Peak Bodies:

ANSA NSW

Recfish Australia

NSW Advisory Council on Recreational Fishing (ACoRF) and its sub committee's

RFA also acknowledges that the members and fishers it represents will not be limited in making their own, unique submissions on issues that affect their own member's exclusive interests within the DZP.

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Introduction:

The RFA is supportive of the introduction of the Jervis Bay Marine Park; however we have always been concerned with the initial way it was implemented, and the associated timeframes and planning processes.

This concern still remains today as detailed information and research establishing basic baseline data remains questionable in many areas. Without sufficient rigorous scientific data that quantifies the areas biodiversity within its boundaries and current zonings, and the ongoing minimal commitments by the Marine Parks Authority to eliminating gaps will continue to hinder the process forward.

Recreational fishers generally interact with the oceans habitat and specifically relates to the many fish species and their abundance in an area, these maybe travelling or sedentary type species, however the majority of fish generally associate themselves with food sources and reproductive habitats.

Recreational fishers will always oppose any challenge to restrict access or exclude recreational fishing from any areas in NSW, unless the gathered evidence, scientific or other, irrefutably indicates that a real and current threat to marine species, biodiversity, natural features or natural processes exists and that restricting access or closure is the only way to remove the threat or abate it.

It is claimed by a number of eminent scientists around Australia and the world that the research into and outcomes for Marine Protected Areas to date remains flawed in its methodology, results and conclusions, due to the associated impacts from mother nature and climate change caused by the human footprint on our environment.

Recreational fishing is deemed to be a 'soft target' by government, departments and conservationists. However this is changing and fishers along with the industries associated with fishing are becoming organised and united, they are embarking on their own research projects or engaging consultants to prepare and fight this common cause and the recreation they love, to retain their 'access rights' for the future.

The current use of fish species and their abundance in Sanctuary Zones are not necessarily the way to proceed as this locks out the community particularly if it involves recreational fishing. The lack of any research on fish stocks prior to any DZP being released is of major concern. This practice relegates the true science of a sanctuary zone succeeding to a system of estimates on pre-sanctuary stock assessments of fish species.

A survey report was prepared for the NSW Fishing Saltwater Trust Expenditure Committee in March 2005 by Dominion Consulting Pty Ltd. In part the executive summary stated, *"the message from the survey of fisher expenditure is that small coastal towns which are popular fishing sites can be highly dependent on the expenditure generated by visiting recreational fishers and in the case of the;*

Bermagui—Narooma postcode area approximately 10.65% of all employment is derived from recreational fishing based on tourism. It is important that recreational fishing managers, policy makers and the tourism industry realize the role with tourism research presents opportunities for future study, investigating way towns could gain from additional tourism, could be beneficial"

This is no different to the summary and outcomes that were provided in another similar socio and economic report commission by the Australian Fishing Tackle and Boating Industries

Associations by Ernst and Young relating to the creation and impacts from the proposed Great Lakes (GLMP) and Batemans Bay Marine Parks (BBMP).

Although it has been stated that the Marine Parks is not only about “fishing”, it is clear that recreational fishing groups within the community are greatly affected in the short and long terms. Others within the community that don’t fish have little or no interest or are not aware of the current consultation processes/period.

It is noted in the DZP there are only four Zones – Sanctuary Zones, Habitat Protection Zones, General Use Zones and Special Purpose Zones, to date the later has rarely being used or considered to accommodate stakeholder groups concerns.

1. The Sanctuary Zone prevents all commercial and recreational fishing, and bait collecting activities.

2. The Habitat Protection Zone is complex and allows various activities for commercial and recreational fishers. It also includes Recreational Fishing Havens which were created by through the buying out of commercial fishing effort in an area by recreational fisher funds.

3. The General Use Zone allows activities for both commercial and recreational fishing with in a permit structure.

4. The Special Purpose Zone generally excludes recreational fishing making it a de-facto Sanctuary Zone, however we have seen some limited expansion of its terms in the BBMP and GLMP.

The MPA have followed a standard process for this MP that has been used in other locations. There has been no new initiative that demonstrates any new approach to date. There appears to be no proposals that take into consideration the delicate tourism issues for the South Coast although this was pointed out in the “Dominion” and “AFTA” reports. The opportunity to develop something original for the southern area of NSW, which reflects “best practice”, has not been proposed in any of the papers reviewed. Although there has been some consultation, the community belief is that their comments and suggestions are being disregarded once again.

Fish Species within Jervis Bay Marine Park:

A high diversity and list of fish species was encountered during the Jervis Bay surveys, with 216 species recorded over the 6 survey periods. Species richness was relatively stable with an average of 115 species recorded in any given year. However, large variation between years was evident in the actual fish species sighted with over half (111) recorded in only one or two survey periods. This variation is largely due to intermittent encounters with uncommon pelagic species (Barrett *et al.* 2005).

LBG fishers and many boating fishers exclusively target these uncommon pelagic fish species Barrett refers to and factors such as prevailing currents, baitfish abundance and many other seasonal variations are indicators that play a vital role in determining the likelihood of these pelagic fish swimming into any Sanctuary Zone (SZ) within this specific marine park. There are no underwater sea mounts, upwelling of nutrient rich currents or known aggregation factors within any of the JBMP SZ for pelagic fish.

The most abundant fish species were generally schooling species such as *Trachinops taeniatus* (eastern hulafish), *Trachurus novaezelandiae* (yellow-tail scad), *Atypichthys strigatus*

(mado sweep), and *Schuettia scalaripinis* (eastern pomfret), with these species dominating the assemblages at many locations. Another schooling species, *Chromis hypsilepis* (one-spot puller), was abundant only at wave-exposed sites. Other common and widespread species included *Pempheris compressa* (small-scale bullseye), *Parma microlepis* (white-ear), *Opthalmolepis lineolata* (maori wrasse) and *Notolabrus gymnogenis* (crimson-banded wrasse). A substantial number of additional species were locally abundant but showed no clear patterns in distribution, suggesting that they either had tight habitat preferences or that counts were affected by chance encounters with aggregations or schools. A notable species with strong site affinities was *Girella tricuspidata* (luderick), a fish only encountered in significant numbers at the most wave-exposed sites (Barrett *et al.* 2005).

Two species of particular interest to fishers are the bream *Acanthopagrus australis* and the snapper *Chrysophyrs auratus*. Bream numbers were trending upwards in 2005 surveys, although this change was non-significant. Significance tests for these species were negatively affected by the highly variable nature of counts between sites and between years, possibly reflecting the mobile nature of juveniles. Few adults were recorded in Jervis Bay during surveys. (Barrett et al 2005)

The surveys provide a comprehensive description of the resident reef fishes, large mobile invertebrates and cover forming plants and animals of the inshore reefs within the Jervis Bay component of the Jervis Bay Marine Park (JBMP). Many of the more common species surveyed displayed relatively stable population structures over time. The major exceptions were schooling or pelagic fish species and tropical fish recruits (Barrett et al 2005).

Benefits of Sanctuary Zones in the Jervis Bay Marine Park:

We have had the benefit of observing the JBMP Sanctuary Zones over a period of time and whilst the issue of more study is decreed, the desired “spill over” effect that fishers were sold has not eventuated. Most of the science and observations of the benefits of SZ relate to species and taxa not accessable or harvested by LBG fishers and boat fishers eg: invertebrates, algae and resident reef fish. The lack of any studies prior to the Park SZ being implemented is also concerning.

RFA is concerned that misrepresentation by the MPA of the science of these zones is being exaggerated when dealing with the impacts of all recreational fishing and especially LBG fishers within the Park.

No substantive differences between sanctuary and non-sanctuary zones were observed over the one and a half years that no-take zones have been enforced in the JBMP. While two exploited species, red morwong and bream, did exhibit trends for population increases in sanctuary zones relative to fished zones (trend was statistically significant for the red morwong but not bream), changes were relatively small and more time will be needed to determine the biological significance of this trend. (Barrett *et al.* 2005).

Other patterns observed over the monitoring period included divergence between fished and non fished zones for the abundance of invertebrate gastropod *Astralium tentoriformis* and the total cover of the common kelp *Ecklonia radiata*. As for the fish results, more time is required to properly determine the biological significance of these trends. (Barrett *et al.* 2005)

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005).

What are your main interests in the Marine Park?

Recreational Fishing

General Angling Practices

Which include Rock, Estuary and Beach, Boat and Spearfishing

Access to all areas with conditions in place to adequately ensure protection improving fish stocks

Specific Angling

Land Based Game Angling

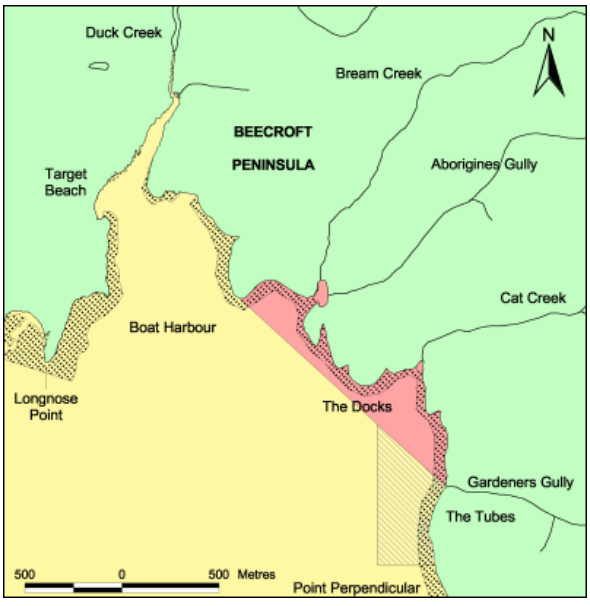
> A common fishing technique by shore based fishers is to suspend live baits, such as the slimy mackerel (*Scomber australasicus*), under balloons and float this rig—connected by a monofilament line to the fisher's rod a considerable distance out from the shoreline. (Lynch et al. 2004).

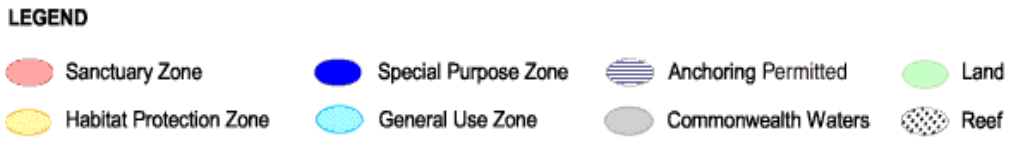
Comments on the Zones.

1. The Docks Sanctuary Zone

1.1 The Docks

The zone extends from the mean high water mark on the northern side of Gardeners Gully north west to the southernmost extremity of the headland 400m west of Bream Creek (Boat Harbour), then generally south east following the mean high water mark to the point north of Gardeners Gully, including all creeks, bays and tributaries to the mean high water mark and to the tidal limit.





Habitat protection zones (HPZ) cover 72% of JBMP and allow recreational fishing (Barrett *et al.* 2005). In terms of Land Based Game (LBG) fishing this figure is less that 2% of the total JBMP HPZ with accessable deep water rock ledges within the park suitable for LBG fishing. These same ledges have a historical and traditional usage by fishers chasing the seasonal pelagic species encountered in this form of fishing.

Land Based Game Angling

The words and images Land Based Game at Jervis Bay are not only recorded on best selling DVDs and published literature predating the JBMP, the phenomena that is LBG is sold nationally and internationally by many agencies outside the fishing sphere. The most consistent producer of striped and black marlin caught off the rocks any where in the world; the current land based all tackle marlin world records from our rocks. (www.tourismjervisbay.com.au/tourism_jervis_bay_visitors_centre.asp)

When the warm East Australian Current extends into JBMP waters during summer, the headlands provide a consistent location for the capture of **pelagic gamefish**. Targeted species include kingfish (*Seriola lalandi*), tailor (*Pomatomus saltatrix*), tunas such as bonito (*Sarda australis*) and yellowfin (*Thunnus albacares*), and both black (*Makaira mazara*) and striped marlin (*Tetrapturus audax*). Due to the unique nature of the coastline around the headlands of Jervis Bay, these species can be targeted from both game-fishing boats and also by fishers fishing from the shore. A common fishing technique by shore fishers is to suspend live baits, such as the slimy mackerel (*Scomber australasicus*), under balloons and float this rig connected by a monofilament line to the fisher's rod a considerable distance out from the shoreline. (Lynch *et al.* 2004).

Habitat protection zones (HPZ) cover 72% of JBMP and allow recreational fishing (Barrett *et al.* 2005). In terms of Land Based Game (LBG) fishing this figure is less that 2% of the total JBMP HPZ with accessable deep water rock ledges within the park suitable for LBG fishing. These same ledges have a historical and traditional usage by fishers chasing the seasonal pelagic species encountered in this form of angling. Shore fishers mostly fished from a single rock ledge on the Beecroft Peninsula and accounted for the fisheries most intensely fished and the overall maximum fishing party size of 27 (Lynch 2006).

The ability of fishers to target game fish from the shore means that the fishery is unusually egalitarian. This rare chance for shore fishers to target game fish means that capital investment in successful fishing gear can include individual rods deployed from shore, as well as large game fishing boats with multiple rods and teasers. To attempt to solve the conflict through a gear restriction for example, by banning shore based balloon fishing would exclude fishers on the basis of their access to expensive gear. It was also clear that shore fishing gear prohibitions would be perceived as discriminatory towards those with the capital to engage large sports fishing vessels (Lynch *et al.* 2004).

Transfer of Effort Due to Re-zoning of the Docks

Sanctuary zones have always been appealing to divers, and whilst mitigating measures are often in place to limit the impact, they result in the transfer of effort by recreational fishers and further limit recreational angling opportunities. A baseline study conducted 11 years previously was also used to gain a limited perspective on change in user numbers. Comparison between study periods indicated dive numbers had remained similar, while the number of dive charter trips was significantly less. The numbers fishers, for the four months compared, had doubled and tripled. (Lynch et al 2004)

Changes in user allocation in response to MPA zoning are poorly understood. It is possible that protected status may result in new environmental impacts or conflicts, due to the transfer of now prohibited activities from high use to previously low use areas, although, if effort had generally increased, the cost of minor transfers from small MPA would be absorbed by the overall rate of growth. From the available information, angling, unlike recreational scuba diving, appears to have increased compared to the 1989–1990 data set. (Lynch et al 2004)

LBG angling has historically been practiced at the Docks, and the zoning effects approximately 20% of the fishers and 8% of divers observed in the Docks area. (Lynch et al 2004).

The majority of live-bait ballooning shore anglers were in at the Tubes subdivision of the Docks area. The distribution results show that this type of fishing is constrained into a small area, suggesting that few sites are suitable. (Lynch et al 2004)

The numbers of sports divers and fishers are disproportionately concentrated around the headlands of Jervis Bay during summer. Upon categorization of fishers into game-fishers and others fishers, this disproportionate use was even more apparent. This concentration of recreational effort may not only produce cumulative environmental impacts but also exacerbate conflict between user groups. (Lynch et al 2004)

Biodiversity of The Docks Area

"The main biodiversity consideration in zoning the Docks area was observations of the critically endangered grey nurse shark and their potential as fishing by-catch and the recent re-sighting of several grey nurse sharks within a sanctuary area at Jervis Bay Marine Park is an encouraging sign and may indicate that general protection from fishing will allow for some recovery for this endangered species".

The existing evidence on the size and stability of the east coast population of grey nurse sharks is very limited and considered that the population is most likely to be somewhere between 500 and 1,500. However, it might be more (AAT Decision Para. 94)

The propensity of grey nurse sharks to congregate near reefs, caves and gutters has lead to known and suspected aggregation sites being subject to specific study. Dr Otway has been very involved in this work. Ten sites are recognised by the NSW Department as "critical habitat sites" under the *Fisheries Management Act 1994* (NSW). (AAT Decision Para. 15)

The Conservation Council has identified sixteen sites, including sub-sites, which it says are critical aggregation sites for grey nurse sharks and which require greater protection. It also seeks greater protection for two Commonwealth sites further offshore. The total number of sites is, accordingly, eighteen. (AAT Decision Para. 16)

The sites and sub-sites claimed by the Conservation Council are as follows:

(Source: annexure NMO-6 to the statement of Nicholas Otway affirmed on 13 March 2007):

1(a) Julian Rocks (off Byron Bay);

1(b) Spot X (off Byron Bay);

2 Manta Arch (off South Solitary Island);

3 The Steps/Anemone Bay (off North Solitary Island);

4 The E Gutters (off North West Solitary Island);

5 Fish Rock and Green Island (off South West Rocks);

6 Mermaid Reef (off Crowdy Head);

7 Latitude Rock and Spot A/Latitude Reef (off Forster);

8 The Pinnacle (off Forster);

9(a) Big Seal Rocks and Little Seal Rocks;

9(b) White Top Rocks (Seal Rocks);

9(c) Inner and Outer Edith Breaker (Seal Rocks);

9(d) Skeleton Rocks (Seal Rocks);

9(e) Sawtooth Rocks (Seal Rocks);

10 Little Broughton Island (off Port Stephens);

11 Foggy's Cave (off Terrigal);

12 Magic Point (off Maroubra);

13 Long Reef (off Sydney);

14 Bass Point (off Shellharbour);

15 Tollgate Islands (off Bateman's Bay);

16 Montague Island (off Narooma);

17 Cod Grounds (off Laurieton) (Commonwealth site); and

18 Pimpernel Rock (off Brooms Head) (Commonwealth site)

(AAT Decision Para. 18)

No mention is made of the Docks area

LBG Target Species

Many of the more common species surveyed displayed relatively stable population structures over time. The major exceptions were schooling or pelagic fish species and tropical fish recruits (Barrett et al 2005). LBG fishers exclusively target the *highly migratory* pelagic fish species. There are numerous papers and studies from around the world that even the MPA has relied upon that state that highly migratory species demonstrate any benefit from protection in reserves (Bennett and Attwood 1991), and that catch rates of highly migratory species did not increase in a marine reserve following its proclamation (Bennett and Attwood 1993).

Changes to The Docks Zoning For LBG Fishers

LBG angling has historically occurred at the Inner Tubes and Docks as a means of escaping the overcrowding of the Outer Tubes prior to the MPA being declared. These two spots offered an alternative for the highly experienced fisher who was will willing to undertake the arduous walk into these two isolated platform. Fishers at these two spots could embrace the quite enjoyment of LBG without the crowds that the Outer Tubes brings. Having already discussed the targeted species (highly migratory pelagic fish) and the minimal protection any sanctuary zone within the Park offers them and the lack of any collaborating data that suggest the Dock is a legitimate GNS aggregation site it is the intention of RFANSW to recommend

that the Docks and Inner Tubes be opened for LBG fishers on a seasonal basis from November to April each year.

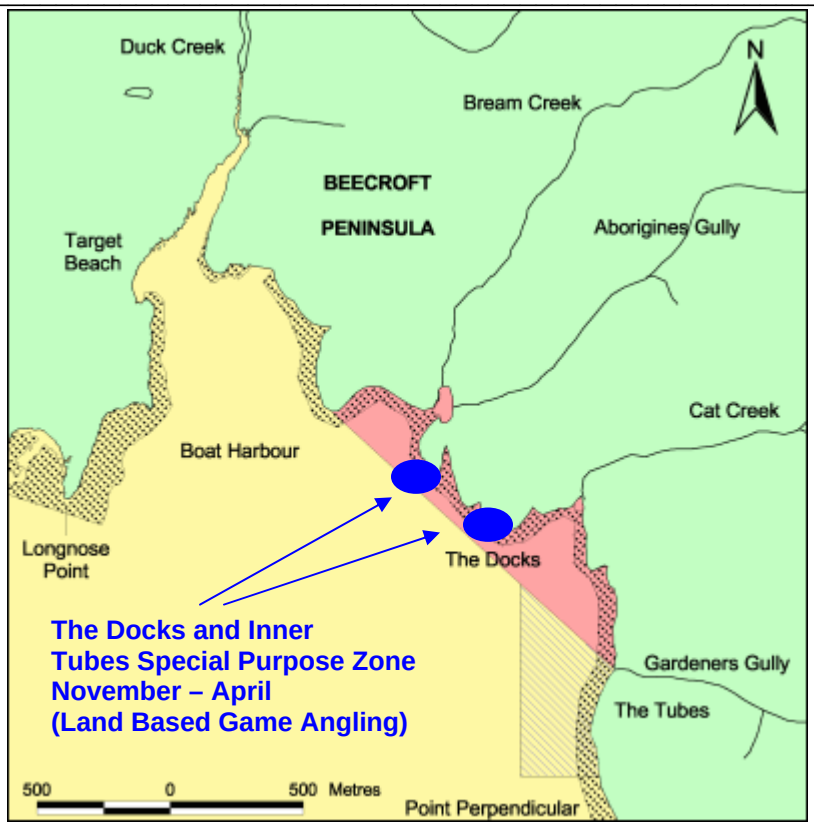
Both these platforms offer easy access to the Habitat Protection Zones just outside the Sanctuary Zone, and with fishers often suspending baits a fair distance off shore, in many instances the baits would themselves be transients within the SZ.

GNS Critical Habitat guidelines could be used to control the tackle used off these platforms, e.g. no wire traces and RFANSW is confident that even regulating the types of hooks used, e.g. non offset circle hooks would be embraced by LBG fishers. Regulations that encompass the use of suspended baits only and lure casting would also be a means to limit any possible interaction with any transient GNS in the area.

With the NSW Government currently criminalising the throwing of projectiles at cars and boats the need for the JB MPA to use the Docks SZ as a way of conflict resolution between fishers and divers is an issue that will be better handled by the NSW Police and will negate the need for MP staff to respond to any potential conflict and potential put these rangers in danger.

In the summer season of 2000–2001, conflict occurred between divers and shore-based game fishers at a site known as the Docks area, which is located in the lee of Jervis Bay's northern headland. After one particularly violent interaction, where dive boats were attacked with lead sinkers fired by fishers from a high-powered slingshot, a dive operator filed a complaint to the police (NSW police report E10957104). A subsequent local newspaper article and editorial gave the fisher's viewpoint that the divers had been deliberately scaring the fish away and that some formal delimitation of access rights may be needed (Wright 2001, South Coast Register 2001). Following this incident, the authority identified reduction or elimination of the Docks area conflict as a priority issue. (Lynch et all 2004).

RFANSW and LBG fishers are prepared to co-exist with the divers that share the rescource in the Docks area. There are ways of mitigating conflict and avenues to open discussions with local dive operators in ways of sharing the Docks area during the narrow window that the LBG season offers these fishers.



The Docks as a Multi-use Sanctuary Zone for Divers and LBG Fishers

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to the Docks Sanctuary Zone;

- Seasonal access for LBG fishers to use the Inner Tube and Docks platforms to enjoy LBG angling within the JBMP,
- Work with recreational peak bodies to formulate a code of conduct between fishers and local dive boat operators with a review process annually,
- RFANSW and RFANSW would seek funds to move and increase the dive moorings closer to Shark Rock within the Docks Core Bay.
- Accept the Docks as a site where GNS occur occasionally and ask NSWDPI to implement CHZ regulations for all LBG fishers on these platforms and encourage the use of non-offset circle hooks.

2. Hammer Head Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

3. Black Creek Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

4. Drum and Drumsticks Sanctuary Zone

Many of the more common species surveyed displayed relatively stable population structures over time. The major exceptions were schooling or pelagic fish species and tropical fish recruits (Barrett et al 2005). LBG fishers exclusively target the *highly migratory* pelagic fish species. There are numerous papers and studies from around the world that even the MPA has relied upon that state that highly migratory species demonstrate any benefit from protection in reserves (Bennett and Attwood 1991), and that catch rates of highly migratory species did not increase in a marine reserve following its proclamation (Bennett and Attwood 1993).

Other patterns observed over the monitoring period included divergence between fished and non fished zones for the abundance of invertebrate gastropod *Astralium tentoriformis* and the total cover of the common kelp *Ecklonia radiata*. As for the fish results, more time is required to properly determine the biological significance of these trends. (Barrett *et al.* 2005)

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005).

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- Access to pelagic fish species within this zone and appropriate tackle restrictions in place that allow trolling lures and baits
- More effective and targeted research in this specific sanctuary zone

5. Point Perpendicular – Crocodile Head Sanctuary Zone

Many of the more common species surveyed displayed relatively stable population structures over time. The major exceptions were schooling or pelagic fish species and tropical fish recruits (Barrett et al 2005). LBG fishers exclusively target the *highly migratory* pelagic fish species. There are numerous papers and studies from around the world that even the MPA has relied upon that state that highly migratory species demonstrate any benefit from

protection in reserves (Bennett and Attwood 1991), and that catch rates of highly migratory species did not increase in a marine reserve following its proclamation (Bennett and Attwood 1993).

Other patterns observed over the monitoring period included divergence between fished and non fished zones for the abundance of invertebrate gastropod *Astralium tentoriformis* and the total cover of the common kelp *Ecklonia radiata*. As for the fish results, more time is required to properly determine the biological significance of these trends. (Barrett *et al.* 2005)

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- Access to pelagic fish species within this zone and appropriate tackle restrictions in place that allow trolling lures and baits
- More effective and targeted research in this specific sanctuary zone

6. Groper Coast Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

7. Hare Bay Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

8. Upper Currembene Creek and Mudflats Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

9. Huskisson Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Questions have been raised as to why this Sanctuary zone was placed there and why it suddenly appeared on the JBMP zoning when on the Jervis Bay Marine Reserve Draft Management Plan devised in 1994 it didn't exist there at all. This plan shared almost the identical criteria as JBMP and shared many of the Sanctuary zones as JBMP but not the one adjacent to Huskisson.

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone
- Consideration for the location of a boat Harbour

10. Moona Creek Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

11. Hyams Beach Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

12. Bowen Is Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

13. St Georges Head Sanctuary Zone

Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett *et al.* 2005)

Listed below are the outcomes that RFANSW would like to see delivered in conjunction with the changes to this Sanctuary Zone;

- No Changes
- More effective and targeted research in this specific sanctuary zone

14. Other Comments

14.1 Boating

RFANSW is of the opinion that boating facilities in JBMP and the ability for owners, crews, passengers to enjoy JBMP are limited, especially for boats that draw over 1 meter in depth. Other than three (3) visitors mooring in 22, 450 hectares of JBMP, little else has been done to actively provide opportunities for the public to appreciate and enjoy JBMP as regards to boating in the park.

There are effectively no facilities for deeper draught vessels in JBMP. No pump out facilities, no facilities to tie up to in any tide to load/offload passengers, supplies, fuel, mechanical repairs, rubbish and emergency services.

At times this can become desperate and RFANSW can only postulate at the thought of an emergency arising where a vessel is unable to find refuge in JBMP, because there is none, and an ensuing tragedy occurring.

This lack of boating facilities in JBMP precludes many enjoyment opportunities in Jervis Bay. Some of these being:

- It prevents many, many boaters from considering a visit to Jervis Bay especially from Sydney and passing vessels.
- It prevents many people, especially locals to JBMP, considering the purchase of a deeper draught vessel.
- It prevents many aged, handicapped and less able people from enjoying the JBMP as they are unable to board/alight vessels using dinghies and ladders.
- It makes owning a boat/yacht a very difficult assignment having to use a tender to get on board people, supplies, fuel etc. and having to seek slipping. Antifouling, mechanical repairs in places like Ulladulla, Batemans Bay, Greenwell Point & Sydney. This can also be a dangerous task as the average size of the yachts in Jervis Bay would be much less than 30 feet long.

Jervis Bay is indeed a magnificent area despite it being host to many human activities over a long period of time. It has had a major Naval Base here, HMAS Creswell, since 1915 with a boat harbour, slipway and repair facilities. It had numerous permanent vessels stationed there. The navy has conducted and still conducts major exercises in and from the bay and

many a flotilla of warships are to be seen on a regular basis. Naval aircraft both fixed wing and helicopters have done countless exercises over the bay and today helicopters are also frequently seen. The Nowra based Defence Force Parachute school use Jervis Bay regularly for training.

Four larger commercial vessels, mostly shallow draught vessels, one for dive groups two for dolphin/whale watching and one for day cruises operate in the bay in addition to a small number of smaller vessels mainly for dive groups.

In the past Jervis Bay was one of the ports for a robust coastal passenger service and the Wool Wharf (now gone and located at present day Vincentia) was the port for the shipment of all the wool from Canberra and southern NSW prior to the Hume highway becoming a more viable concern.

Have these human activities permanently degraded Jervis Bay? Jervis Bay today is one of the most pristine of coastal areas. The Defence Force and the commercial operators have proven to be responsible managers.

There appears to be a school of thought that the only way to conserve an environment is to keep people out of it. People are part of the environment and one of the best ways to conserve an area is to allow people to appreciate and enjoy it – a principle of ecotourism – providing that the use is sustainable.

Basic boating facilities are sustainable and can actually help to conserve environments eg pump out facilities. Responsible boating is also sustainable.

Listed below are the outcomes that RFANSW would like to see delivered with regard to boating in the JBMP;

- JBMPA to work with Shoalhaven City Council (SCC) to extend the length of the Callala Bay jetty so as vessels could tie up at any tide.
- Consideration for a suitable location of a boat harbour in Jervis Bay. For over three decades the SCC (the local council to Jervis Bay) has procrastinated on boating facilities in Jervis Bay and has commissioned numerous expensive studies into this. In each case the one suitable location has been identified and that is the area off Shark Net Beach adjacent to Huskisson.

14.2 SCUBA Diving

Listed below are the outcomes that RFANSW would like to see delivered with regard to SCUBA diving within the JBMP;

- JB MP consider adopting a fee system for individual SCUBA divers to contribute to the management of the Marine Park, in a similar way as NSW Recreational Fishers pay a fee and assist the NSWDPI and the Government improve its knowledge and research capabilities.

15. Conclusion

RFANSW has clearly shown that the lack of any significant benefit that the sanctuary zones have delivered clearly indicates that more time is needed to observe. RFANSW is also concerned that no effective base line or pre-sanctuary zone research has been completed prior to these zones being declared.

Other patterns observed over the monitoring period included divergence between fished and unfished zones for the abundance of invertebrate gastropod Astralium tentoriformis and the total cover of the common kelp Ecklonia radiata. As for the fish results, more time is required to properly determine the biological significance of these trends. (Barrett et al. 2005)

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Variation between sanctuary and non-sanctuary zones for common fish species based on survey results from 2003, 2004 and 2005. For the majority of species no clear differences in abundance arose between the protected and fished sites (Barrett et al. 2005).

RFANSW has clearly shown that no protection can be offered to the highly migratory pelagic fish species within the confines of the JBMP.

It is the RFA's position that the locations of all the zones within JBMP remain in situ whilst more detailed and targeted research is completed and that a small portion of the zones be modified to allow boat and land based fishers to target pelagic fish species.

Lynch and Barret have both clearly demonstrated that more time is needed and that the opportunities to protect migratory pelagic fish stocks within the Park are limited or non-existent.

The race for a percentage based Marine Park meant that sound research was overlooked and due process was ignored. RFANSW does not want a repeat of the same situation where the JB MP is seen to be playing catch up with other percentage based Marine Parks in NSW. One of the most concerning aspects of this whole scenario is that key JB MP staff are on record as saying **"that fishers "won" the submission process, with few heavily fished areas closed to fishing"** with regard to the last submission process and RFANSW is extremely concerned that the JB MP will now attempt to play catch up and lock up even more areas to recreational fishing without any sound or current research.

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Otway, N. M., and Parker P. C. 1999.
A review of the biology and ecology of the grey nurse shark (*Carcharias taurus*) Rafinesque 1810. Fisheries Research Report Series 1. NSW Fisheries, Cronulla, NSW.

Register of Critical Habitat - required under the Fisheries Management Act, found at:
http://www.fisheries.nsw.gov.au/threatened_species/general/register_of_critical_habitat

Marine Park Authority
A review of benefits of Marine Protected Areas and related zoning considerations
http//www.mpa.nsw.gov.au/pdf/MPA-review-benefits.pdf

THE PROS AND CONS OF MARINE PROTECTED AREAS IN NEW SOUTH WALES: WHO'S BEEN HOODWINKED?
(Address to The Australian Society for Fish Biology, Canberra, 12/9/07)
Bob Kearney PhD, DSc AM
Emeritus Professor of Fisheries
University of Canberra

Administrative Appeals Tribunal of Australia
Nature Conservation Council of NSW Inc and Minister for Environment and Water Resources and Ors [2007] AATA 1876 (18 October 2007)