

**Environment and Conservation Organisations of NZ Inc
&
Royal Forest and Bird Protection Society**

21 February 2005

Submissions on the Ministry of Fisheries’:

**Draft Statement of Intent for 2005/08;
the Fisheries Services Proposed for 2005/06;
and the Stock Strategies Document.**

Introduction:

Thank you for the opportunity to make submissions on these documents.

The Environment and Conservation Organisations of NZ Inc (ECO) is the national alliance of 62 organisations with a shared concern for the environment and for conservation. The Royal Forest and Bird Protection Society is a large national organisation with 58 branches established and active throughout New Zealand. The Society was established in 1923 but since then its domain of interest has spread from the largely terrestrial to encompass the marine environment and global processes.

Both ECO and Forest and Bird would like to take this opportunity to welcome new CEO of the Ministry of Fisheries.

Submissions:

Environmental Performance

We support the flagged intention in the documents to pay more attention to the environmental impacts of fishing and the environmental performance of the fisheries sector. We submit that the money provided for this is substantially inadequate and that the institutional evolution proposed will prevent effective environmental management “to avoid, remedy or mitigate any adverse effects of fishing on the aquatic environment” (S 8).

In particular we note that the Strategy to Manage the Environmental Effects of Fishing has largely disappeared from view in the SoI and that the remnant of this, the idea of national level management plans in some instances does not deal with the local and regional effects of fishing or with impacts on particular but not national ecotypes.

Institutions, Devolution, Obligations and Submissions

We have read the documents and rather than simply follow these on a page by page basis, which would presume our agreement with the Ministry's intentions for institutional redesign, for devolution of fisheries management and research to fishers and for the conceptions of "rights" there-in, we want to make these points and invite much greater attention to:

- Recognition of the unqualified obligation on New Zealand to "protect and preserve the marine environment " {UNCLOS Art 192] – and to give statutory recognition to this with robust environmental procedures, publicly controlled and informed spatial planning and environmental protection mechanisms.
- Conversion of the philosophy and basis of fisheries management to adopt these principles and practices:
 - 1 Ecosystem based management – that recognises ecosystem functions, processes and services as both essential and largely irreplaceable and therefore the first object of sustainable management.
 - 2 Stock management is important but must be done in the context of primary reference to stocks in their ecosystem functions and context – this is essential to maintaining the marine environment in a healthy functioning state.
 - 3 That maintenance of the natural capital of the marine environment is an essential part of complying with the sustainability requirements in the Purpose of the Fisheries Act 1996 that the potential of fisheries resources be maintained to allow future generations to meet their reasonably foreseeable needs for fisheries resources. We see massive losses of natural capital.
 - 4 We note with continued dismay an absence in any of the documents of any reference to the needs of future generations or how these needs will be defined or met.

We have in the past provided the Ministry with material and a seminar that addressed these matters and we invite the Ministry to engage with us as to a) why the Ministry remains silent on this aspect of your mandate; and b) how provision for these needs might be made.

- Recognition that the public of New Zealand and future generations, subject to Treaty of Waitangi and international obligations, are the fundamental rights holders. Harvesting rights are permits issued subject to sustainability and other requirements. The language of the documents suggests that “stakeholders” have lesser “rights” than so-called “rights holders” but in fact the public has the ultimate rights and has the right to intervene and contain actions that damage the environment, the interests of future generations and the benefits from fish in the sea. We invite the Ministry to re-think its attitudes and language. We suggest that the Ministry substitute the term “permit holders” for the term “rights holders” to make this relationship apparent. We are happy that there be reference to “Treaty rights holders”.
- Over-fishing of deep water and some other stocks. We urge a halt to the continued issue of TAC and to fishing when these stocks go below Bmsy. We draw your attention to the requirement of S 13 of the Fisheries Act that stocks (except bycatch) be managed to “at or above Bmsy”. We do not agree that you are entitled simply to regard this as a target that you habitually allow to be overshot.

We believe the Ministry should comply with section 13 the Act and that fishing should not be permitted when stocks decline below Bmsy. If stocks do go below this, then rebuild must be provided for and stopping fishing is the quickest way to achieve that.

It will often be the case that the economically most efficient stock level, from society’s point of view, is that stocks be maintained well above Bmsy. Bmsy is a harvesting term and it does not allow for ecosystem relationships – for that reason too, Bmsy would also allow stocks to go too low to provide for ecological relationships and functions to be maintained.

It is our view that the Ministry must allow **public** discussion of the TAC and TACC levels so that ecological concerns, non-harvesting uses and objectives, environmental costs, concerns for equity for future generations and the lower discount rates of society compared to harvesters can be taken into account.

- The Ministry's desired institutional evolution is not acceptable to our organisations and their membership. These matters have been discussed and condemned at every AGM our organisations have held in the past few years and we do not agree that the Ministry is correct in its belief that the institutional evolution will allow for more responsible fishing in many of the fisheries.

The Ministry has never provided a proper study of the pros and cons of the institutional evolution proposed. It has never engaged with us on our reasons for believing that the combination of variables (as for instance identified by Elinor Ostrom) that would allow for successful common pool resource management are not present in the New Zealand fisheries, that narrow commercial objective functions and that high commercial fisher discount rates will mean commercial fishing interests will for many species mean over fishing and insufficiently controlled environmental damage. We hold this view notwithstanding the Ministry's view that standards will provide the safeguard against such overfishing. Our view is that the institutional forms and specification of standards will be such that failure is guaranteed.

We urge a review of the policy of devolution of fisheries services and research to the industry with a view to terminating this.

Our reasons for rejecting the proposed devolution of fisheries management and research via the mechanism of "fisheries plans" or other means are:

- 1 We can readily identify a number of situational and stakeholder characteristics (as classified by Ostrom) that make successful management of the kind proposed extremely unlikely.
- 2 The evidence of the depletion during the last 20 years of the operation of the QMS of the deepwater fisheries. This shows that property rights are not sufficient incentive to avoid depletion and may actually make forbearance more difficult to achieve because of the illusion created that fishers have more right to call the tune.
- 3 The strong depletion of fish stocks and the damage to the host environment reflects the domination of the high discount rates held by "footloose" and mobile fishing interests over any incentives to preserve stocks. This is especially true of those stocks whose capital value grows at a rate less than the net return of funds in the next best commercial application. That result is both a core prediction of natural

resources theory and is borne out by the evidence of the past 20 years of fish stock declines. There has been a rapid mining of natural capital in the form of lost fish stocks and damaged environments and an unwillingness of officials and/or Ministers to stand up to pressures from fishers.

The Ministry's proposals in the Statement of Intent to rely on Fisheries Plans prepared by fishing interests and judged against Standards prepared by the Ministry do not acknowledge the pervasive and sustained effect of high discount rates on the part of fishers; the compromise to information and knowledge that fishers commissioning research will generate and the difficulties that the Ministry, stakeholders and the public will face if so much of the control and information is handed over to fishers.

Our concern about this is because the Ministry has nowhere demonstrated that it really has the ability to sufficiently specify the standards or to obtain and command independent information needed for these standards. This is hard enough now but much more important when the institutional arrangements are such that there are systematic biases on the information which is controlled by the industry.

These biases are real: We have attended many meetings that are part of the stock assessment processes, the research planning processes and the sustainability rounds. The biases are real and persistent. The current discussions on the state of the orange roughy stocks are an example: all the issues and technical disputes raised by the industry are focussed on increasing the stock assessment. If the disputes were truly unbiased we would see at least about 50% being to the effect that the stock assessment is too high, but in fact the interventions are that the stock assessments are too low. Similarly the industry frequently objects to research projects on impacts of fishing, tries to defer or defeat such projects going ahead and has objected to scientists speaking to the management implications of the science.

These pressures are a large part of the reasons for the overfishing and environmental damage continuing. They are bad enough in the current institutional arrangements but will matter much more if the industry commissions and presents the information and controls the pen of fisheries plan writing, with other parties reduced to making submissions to them. We reject such arrangements. We have raised these concerns many times. The Ministry has never seriously addressed these.

- The over-fishing and damage to the environment has persisted in part because of the lack of public knowledge of and awareness of the stocks' state and environmental impacts in part because the Ministry itself has lent itself to the obscuring of the true state of the

stocks and the environment. The Ministry continues in the documents critiqued here to obscure the true state of the stocks.

- In this context we will send under separate cover material from a paper by Cath Wallace and Barry Weeber which is in press. We ask that this material be considered by the Ministry but not published or circulated until the paper from which it comes has been published by the publishers to whom it has been submitted. We are happy to receive comment on this paper.
- Establishing mechanisms for public input into fisheries management rather than the current focus on “rights holders” and “stakeholders”. Nowhere in the documents did we find any recognition of the public or the future as rightsholders to the marine environment, its ecological services, the natural capital or the amenity, existence and bequest values associated with fisheries resources in the sea.
- Recognition of the need to capture resource rentals and to deploy these for society’s purposes including enabling the community to engage effectively in fisheries management and research decision making.
- Responding to the concerns of our groups and the expressed concerns of the scampi inquiries, including that of the States Services Commission about the institutional and cultural mind set of the Ministry in its relations with commercial fishers. In particular we see nothing that addresses the SSC Inquiry concerns or how the Ministry can avoid capture by industry interests. The institutional arrangements are an essential element of how relationships and incentives will be determined yet there is no discussion of how capture will be avoided. Instead, the Ministry continues to promote the industry agenda for greater industry control of fisheries management and research.
- We oppose the resumption of moves to further define the attribution of costs for cost recovery. In our experience this process has been a potent mechanism of industry capture of the Ministry.
- Not-with-standing the above we consider that there is a range of expenditure planned that the industry should have to contribute to. This includes costs relating to Ross Sea fisheries management, observation and research.

We have read the documents and find that they lack sufficient detail, precision or robust content to have confidence in the direction of the standards proposed or stock strategies that the Ministry is signalling its intent to pursue.

It is a commonplace of environmental and natural resource management that the success or failure of mechanisms lies in the details and incentives and adjustability of the measures set in place. We have not been provided with anything like enough information for this consultation on the use of standards and stock strategies to be effective.

We acknowledge the idea that setting standards and leaving fishers to meet these standards has an appeal for efficiency but this is only true if those standards are very easily specified, enforced and applied. We do not think that is true and we suggest that the endless wrangles now besetting the orange roughy stock assessment is a good example of the contestability of every aspect of an apparent standard, such that the Ministry would open itself to intense litigation if it pursues this path.

Thus we think it is a good idea for the Ministry to develop standards but not that this be the only function of the Ministry or that these be applied in the context of judging fisher written fisheries plans against these.

Relationships and Representation

We note the recognition in the documents of the need to improve relationships with non-commercial and non-harvesting stakeholders. We would like to underscore for the Ministry that the continued dismissal of our concerns both about the Ministry's attitude to the environment and its reckless disregard for the need to maintain fish stocks at the legal limits and to maintain environmental standards lie behind the poor relationships. It will only be when the Ministry acts to manage on an ecosystem based management basis, takes seriously the Purpose of the Act and its provisions and moves to provide statutory expression of the operation of the environmental and future regarding aspects of the Purpose that relationships will improve. We want to see rapid action to improve fish stocks and to reduce environmental damage. Blandishments and continued handing of power and control to the fishing industry will not achieve any improvements.

The Ministry speaks of establishing representative organisations to represent environmental concerns. We are representative organisations and we caution the Ministry against the establishment of GAENGOS (government appointed environmental NGOs) or CAENGOS

(Corporate appointed environmental NGOs). We invite the Ministry to discuss any plans with our organisations early on.

Utilisation and Users

The Ministry frequently refers to “user groups”. We point out to you that there are many in-situ uses of fisheries and that the Ministry must get out of the mindset that only extractive users should be considered. We remind you again of the many submissions that we have made on this point and of the definition of Utilisation in the Fisheries Act, that it includes conservation and that the pursuit of social and cultural well being and non-market economic values are part of the requirement under the Purpose of the Act. You are not entitled to consider only harvest uses or to confine the notion of economic wellbeing to consideration only of harvest and/or market values.

In particular you suggest that with stock strategies there may be only one set of users – the commercial users. In no case will there be only one set of users. There will always be those with in situ uses and the associated economic, social and cultural values.

FISHERIES RESEARCH SERVICES FOR 2005/06

PROPOSED PROJECTS FOR 2005/06

The research services proposed for 2005/06 financial year are supported but we have an ongoing concern at the narrow range of projects, under-funding of aquatic environment projects, and the failure of the Ministry management to implement the results of many projects.

Current funding of around \$20 million dollars is still well below 1991 research funding levels especially if adjusted for inflation. If research funding had kept pace with inflation the level of funding would now be about \$30 million per year. In addition, since 1991 there has been an expansion in the number of species in the quota management systems which should have required more research.

The Ministry should promote:

- The need for more aquatic environment research: The Ministry is still not responding to the report of the Parliamentary Commissioner for the Environment on “Setting Course” and Section Five of the Fifth Report to Parliament for 1999 of the Controller and Auditor General. Both reports stressed the need for more research on the aquatic environment and the adverse effects of fishing on it, as well as on the matters in the Environmental Principles, section 9.
- There has been a dramatic shift over the last 10 years away from trawl surveys which is reducing the capacity to monitor trends in fish population and the impact of fishing on non-target and commercial species.
- To date the Ministry has yet to adequately fund or give high priority to the impacts of fishing on the aquatic environment. The current funding is similar to that allocated in

1995-96. The proposed projects are more comprehensive than in past years but often the big costs projects are withdrawn eg ENV2004/07.

- More research on new species recently added or to be added to the quota management system.
- Greater observer coverage. We supported moves 2 years ago to increase observer coverage to assessed sea bird captures in fisheries. We welcome increased observer coverage in this year's business plan and the move to consult on observer coverage but the increases proposed will be insufficient to monitor the NPOA and other non-fish bycatch.
- Greater assessment of non-fish by-catch in fisheries. We welcome moves this year for more comprehensive projects in this area.
- If research is not carried out into a fish stock then a management response consistent with precautionary management should be to reduce catch limits.

The groups are concerned at projects being cut due to later consultation with the fishing industry over costs. We understood that the cost recovery process was under review 18 months ago but that review has not been started. We look forward to Ministry consulting widely on this issue and not just with the fishing industry.

Our Ranking System:

Our priority ranking system is based on 5 points:

- 4-5 - high priority
- 3 - medium priority
- 2- low priority - could be deferred to a future year.
- 0-1 - Of doubtful scientific merit

We have also included a commentary on some of the projects.

ANTARCTIC FISHERIES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our</u>
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			<u>Priority</u>
ANT2005/01	Fishery characterisation of the toothfish fishery	High	5
ANT2005/02	Aspects of the biology of fishes in the toothfish fishery	High	5
ANT2005/03	Stock Assessment of toothfish	High	5
ANT2005/04	Modelling of the ecosystem effects of fishing in the Ross Sea	High	5
	<i>Internationally the Ross Sea has been recognised as a special area (see report of the Worlds Parks Congress IUCN 2003 and IUCN 2004 RES 029 RESWCC3.036 Antarctica and the Southern Ocean). If fishing continues in the Ross Sea then it is critical that the impacts of fishing on the marine environment is well considered.</i>		
ANT2005/05	Population estimation for non-target fish species in Antarctic fisheries	High	5
ANT2005/06	Seabird and marine mammal interactions with the Ross Sea toothfish fishery	High	5
	<i>All these projects should be cost recovered from Antarctic fishers. Fishing industry effort in the Ross Sea is currently being subsidised by the Crown.</i>		
OBS 2005/02	Research Observer Days - Antarctic	High	5
	<i>This project is a requirement of CCAMLR conservation measures.</i>		

DEEPWATER FISHERIES

Code	Title	Priority	Our Priority
CDL 2005/01	Cardinalfish stock assessment	High	5
	<i>Cardinalfish is overdue for an assessment.</i>		
DEE2005/01	Age validation of black oreo, smooth oreo, and black cardinalfish using bomb radiocarbon techniques	High	5
DEE2005/02	Age validation of orange roughy and black cardinalfish using radiometric techniques	High	5
OEO2005/01	Estimation of the abundance of black oreo and smooth oreo in selected areas	High	5

This project is strongly supported. Research on oreos has been haphazard over the last few years as surveys are cut due to industry vetoing costs.

OEO2005/02	Oreo stock assessment	High	5
ORH2005/01	Estimation of the abundance of orange roughy in selected areas	High	5
ORH2005/02	Orange roughy stock assessment	High	5
ORH2005/03	Stock assessment of orange roughy fisheries outside the New Zealand EEZ	High	5
ORH2005/04	Maturity and vulnerability of orange roughy fisheries	High	5
OBS 2005/01	Research Observer Days – Deepwater fisheries	High	5

This project is supported but additional observer coverage should be considered to determine seabird captures in deepwater fisheries and provide robust oreo and black cardinalfish coverage.

HOKI AND MIDDLE DEPTHS FISHERIES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
HOK2005/01	Hoki population modelling and stock assessment	High	5
	<i>The description should note the work in the current year to investigate prediction of year class strength from environmental variables. This is a crucial aspect for future management of this fishery.</i>		
	<i>We note that the project to look at stock structure of hoki was withdrawn.</i>		
HOK2005/02	Estimation of hoki and middle depth fish abundance on the Chatham Rise using trawl surveys	High	5
HOK2005/03	Estimation of spawning hoki biomass using acoustic surveys	High	5
HAK2005/01	Stock assessment of hake	High	5
LIN2005/01	Stock assessment of ling	High	5

MDT2005/01	Estimation of hoki and middle depth fish abundance on the Southern Plateau using trawl surveys	High	5
MID2005/01	Determination of catch at age in hoki, hake and ling fisheries	High	5
MID2005/02	Catch sampling and ageing of hoki and ling in the Cook Strait fishery	High	5
SBW2005/01	Stock assessment of southern blue whiting	High	5
SBW2005/02	Biomass estimation of southern blue whiting using acoustic surveys	High	5
OBS 2005/03	Research Observer Days – Hoki and middle depth fisheries	High	5

We support this project but increased observer coverage is necessary so that non-fish bycatch can be more accurately assessed.

This coverage also collects biological information on SWA and WWA.

INSHORE FINFISH FISHERIES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
BCO2005/01	Characterisation of the blue cod fishery in BCO4	High	5
	<i>We note the project looking at abundance of blue cod in area 5 has been dropped apart from Paterson Inlet.</i>		
BNS2005/01	Validation of growth zones in bluenose otoliths	High	5
EEL2005/02	Monitoring commercial eel fisheries	High	5
FLA2005/01	Productivity of yellow belly flounder	High	5
	<i>Productivity of all flounder species need to be assessed and moves take to split the eight species.</i>		
GUR2005/01	Monitoring GUR 1	High	5
GUR2005/02	Relative abundance of red gurnard in GUR2	High	5

INS2005/01	Monitoring the length and age structure of commercial landings of alfonsino, gemfish and Rubyfish.	High	5
INS2005/02	To estimate relative abundance of GUR, JDO, TAR and other inshore stocks around northern New Zealand	High	5
	<i>We welcome work to assess trawl surveys in the north. It is essential that the other benefits of trawl surveys in gaining non-target information about fish populations and trends over longer periods eg 10 years or more.</i>		
JDO2005/01	Monitoring JDO 1	High	5
SNA2005/02	Estimation of snapper year class strength in SNA 1	High	5
SNA2005/03	Estimation of snapper year class strength in SNA 8	High	5
SPD2005/01	Relative abundance of spiny dogfish in SPD 3 and 5	High	5
	<i>We strongly support further work on this important shark species.</i>		
SPE2005/01	Characterisation of Chatham Rise sea perch fisheries	High	5
TAR2005/01	Monitoring the length and age structure of commercial landings of tarakihi in TAR 1	High	5
	<i>1. We look forward to future proposals for observer in inshore fisheries. 2. We look forward to the development of future trawl surveys. This includes the reinstatement of the Southland trawl survey.</i>		

SHELLFISH FISHERIES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
COC2005/01	Stock assessment of Snake Bank cockles	High	5
	<i>We support the cockle projects continuing on an annual basis.</i>		
CRA2005/012	Rock lobster recruitment	High	5
	<i>We strongly support this project and strongly urge</i>		

this information be used more as an input into stock assessments. Currently this information is rarely used, in particular in forward projections.

The rock lobster proposals are supported.

OYS2005/01	Foveaux Strait oyster stock assessment	High	5
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The proposal to look at factors affecting Bonamiosis in Foveaux Strait oysters should have been continued. This is a key issue in the management of the oyster stock. The assessment of closed areas must be part of any assessment process.

PAU2005/02	Stock assessment of paua 5D	High	5
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PAU2005/03	Stock assessment dive survey PAU5A	High	5
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SCA2005/01	Stock assessment of Coromandel scallops	High	5
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SCA2005/02	Stock assessment of Northland scallops	High	5
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Both scallop projects are strongly supported.

SCI2005/01	Measuring the abundance of scampi	High	5
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It is essential that further assessments are carried out in the scampi fishery. The focus needs to move from who got quota to whether the current catch limits are sustainable. We doubt that they are sustainable.

We note that these are all important projects.

NON-COMMERCIAL FISHERIES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
AKI2005/01	Intertidal shellfish monitoring in the Auckland Fisheries Management Area	High	5
BCO2005/02	Abundance of blue cod in Paterson Inlet (BCO5)	High	5
BCO2005/04	Stock assessment of blue cod <i>We question that this is only a non-commercial assessment.</i>	High	5

EEL2005/02	Management of customary eel fisheries	High	5
EEL2005/03	Estimation of the national mortality of eels associated with hydro passage and waterways clearance	High	5
<i>We support this project. The Ministry need to take a stronger advocacy position on these issues.</i>			
REC2005/01	Estimation of recreational harvest of priority fish stocks	High	5
REC2005/02	Marlborough Sounds recreational fishing survey	High	5
REC2005/03	Rock lobster recreational catch estimates	High	5
REC2005/04	Survey of marine recreational fishing in selected areas	High	5
REC2005/05	Intertidal shellfish around Banks Peninsula	High	5
REC2005/06	Monitoring recreational fishing effort and catches in QMA1	High	5
REC2005/07	Monitoring scallops populations in the Kaipara harbour	High	5
SNA2005/04	Selectivity of recreational catches in SNA 1	High	5
TOH2005/01	Distribution and abundance of toheroa on Ninety Mile Beach	High	5
<i>We support the early development of standards and specifications for recreational fishing surveys which is supposed to be carried out via a workshop.</i>			

AQUATIC ENVIRONMENT

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
ENV2005/01	Estimation of the nature and extent of incidental captures in New Zealand fisheries	High	5
ENV2005/02	Estimation of the nature and extent of marine mammal capture in New Zealand fisheries	High	5
ENV 2005/04	Identification of marine mammals captured in New Zealand fisheries.	High	5
ENV2005/05	Characterisation of marine mammal captures in New Zealand fisheries	High	5

We strongly support this project which completes the full picture of captures of marine mammals apart from cetacean captures in the jack mackerel fishery and hector's dolphin captures.

OBS2005/04	Research Observer services to estimate the nature and extent of incidental captures of protected species in New Zealand fisheries.	High	5
ENV2005/06	<i>We strongly support this project.</i> Estimation of protected species captures in longline using electronic monitoring	High	5
	<i>While supporting this project we have questions over the usefulness of electronic monitoring. Results to date presented in New Zealand have been equivocal at best. To be effective it would require law changes and management issues to be sorted out. It is essential that this assessment be carried out by the Ministry of Fisheries and/or Department of Conservation.</i>		
ENV2005/08	Experimental design of a programme of indicators of protected species population performance relative to fisheries mortality and fisheries management activities	High	5
	<i>With the demise of the Ministry for the Environment's indicators programme it is essential that this work produces indicators that are durable.</i>		
ENV2005/09	Data collection to estimate key performance indicators in the Chatham albatross, <i>Diomedea eremita</i> population, relative to fisheries mortality and fisheries management activities	High	5
ENV2005/13	Assessment of risk to Yellow-eyed Penguin <i>Megadyptes antipodes</i> from fisheries incidental mortality in New Zealand fisheries and definition of information requirements for managing fisheries-related risk	High	5
ENV2005/14	Feeding relationships in New Zealand protected species higher predators	High	5
ENV2005/15	Information for managing the effect of fishing on physical features of the deep-sea environment	High	5
ENV2005/16	Investigate the effects of fishing on physical features of the deep-sea environment	High	5
ENV2005/17	Estimation of non-target fish catch and both target and	High	5

	non-target fish discards for jack mackerel trawl fisheries		
ENV2005/18	Estimation of non-target fish catch and both target and non-target fish discards in orange roughy trawl fisheries	High	5
	<i>Project 17 and 18 are ongoing projects which should be used to assess trends in discards.</i>		
ENV2005/20	Benthic invertebrate sampling and species identification in trawl fisheries	High	5
ENV2005/21	Threat status of associated OR dependent species	Medium	5
ENV2005/22	Relative effects of fishing and environmental degradation of northern harbour fisheries	Medium	5
ENV2005/23	Monitoring recovery of the benthic community between North Cape and Cape Reinga	Medium	5
	<i>This should be a high priority project given the high level of biodiversity at risk in this area.</i>		
	<i>All of these projects are supported.</i>		

PELAGIC FISHERIES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
ALB2005/01	Stock monitoring of albacore	High	5
EMA2005/01	Development of fisheries dependent indices of abundance for blue mackerel	High	5
EMA2005/01	Investigation of blue mackerel ageing error	High	5
JMA2005/01	Status of <i>Trachurus symmetricus murphyi</i> in New Zealand fisheries waters	Medium	5
KAH2005/01	Stock assessment of kahawai	High	5
KAH2005/02	Stock monitoring of kahawai – recreational catch	High	5
KAH2005/03	Stock monitoring of kahawai – commercial catch	High	5
PEL2005/01	Characterisation of pelagic fisheries using observer data	High	5
STM2005/01	Stock monitoring of striped marlin	High	5

TRE2005/01	Stock monitoring of trevally	High	5
TUN2005/01	Characterisation of the New Zealand tuna fisheries	High	5
TUN2005/02	Development of a commercial catch sampling programme for highly migratory species	High	5
OBS2005/05	Research Observer Days – Pelagic fisheries	High	5

We strongly support this project.

STOCK ASSESSMENT METHODS

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
SAM2005/01	Catch-age-age estimation	High	5
SAM2005/02	Effects of climate on commercial fish abundance	High	5

This project is strongly supported.

OTHER SERVICES

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
SAP2005/01	Stock assessment process	High	5
IFA2005/01	Scientific support for international obligations related to fishing	High	5
IPA2005/01	Technical input to policy advice	High	5
SEC2005/01	Social, cultural and economic research	High	5
CUS2005/05	Estimation of customary Maori harvest	High	5

We note that all these projects are 100% crown funded.

RESEARCH DATA MANAGEMENT

<u>Code</u>	<u>Title</u>	<u>Priority</u>	<u>Our Priority</u>
DAT2005/02	Research Data Management	High	5

The research data management and other services are strongly supported.