



Agreement on the Conservation of Albatrosses and Petrels

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**Suggestion on data requirements on incidental capture of
seabirds in fisheries of ACAP parties**

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Suggestion on data requirements on incidental capture of seabirds in fisheries of ACAP Parties

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The following paper has been prepared to advance discussions on the submission of data to the ACAP Secretariat on the incidental capture in fisheries of albatross and petrel species listed in Annex 1 of the Agreement on the Conservation of Albatrosses and Petrels. During the meeting of the Advisory Committee 1 of ACAP in 2005, New Zealand tabled a paper on the seabird captures in New Zealand fisheries (ACAP AC1 Info16). Several Parties commented that it would be useful to develop data submission requirements for ACAP Parties in relation to captures of seabird species in their own fisheries, using that paper as a basis for information submission requirements.

The objective the ACAP agreement is to “achieve and maintain a favourable conservation status for albatrosses and petrels”. In developing the agreement, the contracting Parties noted “the threats posed by fisheries by-catch in general to a wide range of species, and in particular albatrosses and petrels”.

Under Article III of the ACAP agreement, Parties are required to develop and implement measures to prevent, remove, minimise or mitigate the adverse effects of activities that may influence the conservation status of albatrosses and petrels. Article V section a) of the Agreement requires Parties to cooperate to “develop systems for collecting and analysing data, and exchanging information”.

The collation of information about fisheries incidental take of albatrosses and petrels is consistent with these principles and articles of the Agreement. Collection of data on fishing mortality of albatrosses and petrels by ACAP Parties to assess the risk to species from fisheries mortality and other threats. Conservation action for any species needs to be focussed on the threats that pose the highest risk to species conservation status, and collation of information on bycatch of species in fisheries that overlap with their distribution will assist in the development of appropriate conservation actions.

In order for ACAP Parties to derive most benefit from the collation of data on incidental catch of seabirds, the objectives of any data submission process need to be clearly set out. We propose that data on incidental captures of seabirds (and particularly species listed in Annex 1 of the ACAP agreement) should be submitted with the following objectives in view:

- a) *To enable analyses of species-level risk from interactions with different fisheries¹ around the world;*
- b) *To provide standard formats and metrics in which Parties should submit information to the ACAP Secretariat e.g. catch rates that are comparable, effort statistics that span national boundaries; and*

¹ The definition of a fishery needs to be developed.

- c) *To examine mitigation efficacy at a regional level and the role of this in mitigating risk to ACAP species populations.*

An additional second-tier objective is:

- d) *To provide a comprehensive repository of data on incidental catch of seabirds for Parties².*

The details of data to be submitted in any data exchange programme need to be developed in discussions between Parties. We have provided Appendix 1 as a basis for discussing the development of any sharing agreement on seabird incidental catch data.

We recognise that there is a need for Parties to agree the level of detail that is required if such reporting is implemented. This will affect the format in which data will need to be submitted, considerations for storage and publication of the data, as well as determining the kinds of analyses that are possible to undertake using the data.

With the level of detail suggested for data submission in Appendix 1, the following analyses should be feasible:

- Identification of fisheries, fishing-methods and areas in which fisheries mortalities of ACAP species are currently documented;
- Identification of areas where potential risk to ACAP species populations may be occurring;
- Enumeration of minimum rates of seabird bycatch in observed fisheries for which data are submitted (at the level of total, estimated seabird captures);
- Collation of information on the implementation of mitigation methods in observed fisheries; and
- Qualitative analysis of relative risk to species from different fishing methods and in different areas, based on observed numbers of birds per species.

Significant databases of fisheries-catch effort information and some seabird bycatch information are collated by Regional Fisheries Organisations (RFMOs), or data sharing agreements are currently being negotiated. Working with the RFMOs to avoid duplication of effort in data submission will be vital. Commission meetings are upcoming in late 2006 for key RFMOs, in particular CCSBT (October 2006), WCPFC (December 2006), IATTC (July 2006).

² Summary data at a fishery level only are envisaged.

Recommendations to the ACAP Advisory Committee

New Zealand recommends that the ACAP Advisory Committee considers the information presented, and implements the following:

i) Establish a data exchange programme for seabird incidental captures in fisheries by:

EITHER:

a) Establish a small working party to develop data submission requirements for seabird incidental catch information for ACAP Parties, using the suggested data submission requirements in Appendix 1 as a basis for discussions;

OR:

b) Consider working with alternative groups or institutions that can provide summary information on incidental capture of seabirds and the risk from fishing mortalities to ACAP species;

OR:

c) Rely on published estimates of captures of seabirds and commission a periodic review of these studies to inform the Advisory Committee.

ii) Write to Commissions of relevant Regional Fishery Management Organisations requesting summary seabird and catch-effort data, and mitigation information before they next meet.

Appendix 1: Data submission on seabird incidental mortalities in fisheries of ACAP Parties

1 Purpose

The purpose of the data submission on seabird incidental mortality in fisheries of ACAP Parties is to:

- a) Examine the risk to individual ACAP species from interaction with fisheries;
- b) Allow comparison and collation of fishery catch statistics to assess total or minimum captures of ACAP species; and
- c) To examine mitigation efficacy at a regional level and the role of this in mitigating risk to ACAP species populations;

The data submission will additionally enable:

- d) Qualitative assessment of the fishery risk to ACAP species through collation of a comprehensive dataset on seabird incidental mortalities throughout their ranges.

2 Seabird-capture statistics

2.1 Describing the fisheries concerned and dataset

The following categorisations are required to enable an assessment of the scale of fishing operations and quality of information about any observed seabird incidental catch.

- a) Describe the main fisheries concerned, briefly describe the characteristics of those fisheries (e.g. fleet size, season, area of activity, fishing method);
- b) Describe briefly any other fisheries that are likely to be catching seabirds, but for which there are few data;
- c) Discuss the extent and representativeness of observer coverage and any constraints of these data for allowing estimation of seabird mortality totals for the fisheries concerned; and
- d) Where estimates of total seabird captures are provided, discuss estimation methodology and where possible provide a reference document fully detailing the method

- e) Provide information on mitigation methods in use, level of compliance, existence of Codes of Practice or Regulations under which mitigation measures are promoted or enforced.

2.2 Data to be submitted

The following information requirements will allow examination of which fisheries pose a risk to particular seabird taxa, and the potential seriousness of this risk in increasing the severity of conservation threat status for the species.

Suggested minimum mandatory data submission requirements include:

- a) Total observed captures for all seabirds;
- b) Total observed captures by species;
- c) Total effort expended and observed by area, season, method for a fishery³;
- d) Percentage and total effort observed by area, season, method;
- e) Information on mitigation used in the fishery, and likely effects of this on bycatch rates or totals, quantitatively where possible; and
- f) Append any regulations / standards used to describe the mitigation measures, above.

With additional, optional data submissions, a more quantitative assessment of fishery level risk to seabird species may be possible. These could include:

- g) Estimated total captures of birds by area, season, method;
- h) Estimated percentage observer coverage level; and
- i) Technical description of the estimation technique used to produce the above estimates.

The following tabulated information requirements provide a suggestion for how data may be formulated to enable the purpose of the data collection to be met. These formats are considered an effective way to ensure data are clear, concise, and readily comparable between different fisheries and regions.

³ Definition of a fishery needs to be developed

Table 1. Numbers of seabirds estimated captured in ACAP Parties' fisheries from observer data (CV in brackets). Note whether mitigation was in use in the fishery and year. Provide details with a footnote.

Fishing year	Fleet 1 effort	Fleet 1 observed cover %	Fleet 1 observed captures	Fleet 1 Estimated captures (number, CV)	Fleet 1 Rate of capture (mean, CV)
Yr 1					
Yr 2					
Yr 3					
Fishing year	Fleet 2 effort	Fleet 2 observed cover %	Fleet 2 observed captures	Fleet 2 Estimated captures (number, CV)	Fleet 2 Rate of capture (mean, CV)
Yr 1					
Yr 2					
Yr 3					
Totals					

Table 2. Note whether mitigation was in use in the fishery and year. Provide details with a footnote.

<i>Fishing year</i>	<i>Mitigation type used⁴</i>	<i>Capture rates with mitigation (mean, CV)</i>	<i>Capture rates without mitigation (mean, CV)</i>	<i>% compliance with mitigation requirements (% effort)</i>
Fleet 1				
Yr 1				
Yr 2				
Yr 3				
Fleet 2				
Yr 1				
Yr 2				
Yr 3				
Totals				

2.3 Discussion of data interpretation

Analysing any dataset, whether summary data or raw data, requires meta-data about the information which is being reviewed. For example it is necessary to know whether there have been changes to fishery practice or areas of operation, before assessing whether changes in reported seabird catch rates are real or apparent. The following characterisations are suggested as minimum requirements for meta-data about submitted information, before comparisons can be meaningfully undertaken.

- a) Discuss trends or constraints on comparison of the data between years. Can a trend be determined from the data in different years?;

⁴ Mitigation type includes fishing practices, such as night setting

- b) If it is not possible to estimate total captures (e.g. due to low or unrepresentative observer coverage), include information on capture rates and effort; and
- c) Which observed changes in capture rates or totals relate to different fishing practices and mitigation efforts?

3 Species caught in ACAP Parties' fisheries

For ACAP Parties to assess whether fisheries mortality has potential to adversely affect particular species' conservation status, detailed information about species-level captures is required. The following suggested data submission requirements recognise that species-level estimation of total captures is often unavailable. It is therefore necessary to work with observed capture totals.

3.1 Data submission requirements

The following suggested mandatory data submission requirements are considered the minimum necessary to prove a qualitative assessment of risk to species conservation status from fishery incidental catch:

- a) Enumeration of species caught (observed seabirds) by year, for each fishery, including ACAP species and other non-ACAP species as relevant; and
- b) Discussion of methods used for identification (e.g. observer or onshore).

With additional data, suggested below, more quantitative assessments may be possible of fisheries effects on seabird species' populations. It is recognised that for most species and many jurisdictions, the level of data suggested below are not routinely available:

Suggested optional data submission requirements include:

- c) Sex and life-stage information about captured individuals;
- d) Whether carcasses were retained or discarded;
- e) Whether individual birds were released alive, and any relevant injury status information; and
- f) Species-level estimates of captures (rates and totals by fishery)

The following tabulation of species-level information is suggested as a concise and efficient way to report species level capture information across ACAP taxa. We suggest that these be reported by fishery (e.g. by fishing method, season and area), as different fishing methods have variable propensity to catch different species of albatross and petrel.

Table 3. Species recovered from fishing operations in the ACAP Party's area by year (data on sex and adult/juvenile, and injury status to be included where available)

<i>Numbers returned from ACAP Parties' fishing operations in year x</i>			
	<i>Fishery 1</i> <i>e.g. Trawl</i>	<i>Fishery 2</i> <i>e.g. Surface LL</i>	<i>Fishery 3</i> <i>e.g. Bottom LL</i>
Albatrosses			
	Species 1		
	Species 2		
Petrels			
	Species 1		
	Species 2		

3.2 Discussion of the data interpretation

In order to appropriately interpret information about species-level captures of seabirds, some meta-information about the quality, coverage, and reliability of the submitted information is required. The following characterisations are suggested to meet these meta-data requirements.

- a) Briefly discuss the implications of the capture results by species / fishery by year. Data for most recent years is sought, but historical data is equally important; and
- b) Discuss how many incidental captures are documented to have occurred in other than within-zone commercial fisheries (e.g. recreational or customary fisheries, IUU fishing)

4 Seabird interactions in high-seas fishing by ACAP Party's vessels

A regard over high-seas fisheries effects on seabirds via incidental mortality is necessary to provide a comprehensive (if not complete) picture of the effects of fisheries mortality on species conservation status. The following characterisation is suggested as a first step towards providing qualitative information in this area. More quantitative information is not generally available for high-sea's fisheries, with some notable exceptions.

- a) Discuss fishing related mortalities that may arise as a result of fishing activity by national vessels or vessels registered in the country, fishing out side of the Economic Zone of the country. Quantify these where possible.

5 Discussion

We consider it useful for Parties submitting information to provide an interpretation of the data submitted. The following areas of detail are suggested.

- a) Provide a brief summary of the information in the report, any interpretations or constraints on inference in the information provided; and
- b) Indicate areas of most concern for managing fisheries related mortalities, and management actions that are being undertaken/ planned to address these.