



Agreement on the Conservation of Albatrosses and Petrels

Fourth Meeting of Advisory Committee

Cape Town, South Africa, 22 – 25 August 2008

Prioritising ACAP actions:

A proposed short-term approach

New Zealand

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SUMMARY

The objective of the Agreement on the Conservation of Albatrosses and Petrels (ACAP) is to achieve and maintain a favourable conservation status for albatrosses and petrels. In this paper, we propose an approach to guide the development of the work programmes implemented under the Agreement to best achieve this objective. We use principles for prioritisation which include:

- prioritising species for action based on their conservation status, and
- prioritising management action against threats by assessing resource requirements and the likelihood that actions will be successful and beneficial.

We then set out a methodology for applying these principles and illustrate our approach using ACAP-listed species that breed in New Zealand.

While prioritisation can be carried out on a single species basis, multiple ACAP species will often co-occur at a breeding site, or in a specific ocean area, and thus obtain benefit from the resolution of a particular threat. Consequently, we consider that the priority of actions benefitting more than one ACAP-listed species should be elevated. In dynamic environments, priority-setting will always be an iterative process. We propose that a review of priorities occurs at every meeting of the ACAP Advisory Committee and session of the Meeting of Parties. The approach we present is intended to guide decision-making using principles that are clearly linked to the objective of ACAP, rather than to remove any opportunity to make more subjective decisions when these are required.

The Advisory Committee is requested to:

- **note** the proposed approach to guiding prioritisation of the Advisory Committee Work Programme described in this paper,
- **agree** to develop and recommend to the Meeting of Parties a set of principles and a proposed methodology for prioritising the Advisory Committee work programme
- **agree** to prioritise the Advisory Committee work programme taking into account the agreed principles and methodology
- **note** that the proposed approach recommends a review process to ensure priorities remain relevant and the progress of actions is monitored, and,
- **note** that the proposed methodology is based on currently available information and is therefore interim in nature. It is recommended to move to developing more information-rich prioritisation frameworks as relevant knowledge becomes available

INTRODUCTION

The objective of the Agreement on the Conservation of Albatrosses and Petrels (ACAP) is to achieve and maintain a favourable conservation status for albatrosses and petrels¹. In multilateral international agreements such as ACAP, the complexity and diversity of actions required to progress objectives necessitates clear evaluation of the costs and benefits of alternative work streams. Further, when implementing management actions is constrained by resource availability, including limited money, expertise, and remit, competition for resources necessitates the setting of priorities.

Ideally, priority-setting should be undertaken through a clear analysis of the relative contributions of work to progressing the objective of the Agreement, with respect to the resources consumed. Management and other actions undertaken should be those maximising progress on the objective, while minimising consumption of resources.

Past ACAP meetings have identified a range of priority work areas. For example, the second session of the Meeting of Parties noted the importance of both land- and sea-based threats, building capacity to implement the Agreement, and identifying information needs². To date, work executed through ACAP has included information collation, and identification of actions, e.g. databases of the Status and Trends and Breeding Sites working groups, production of ACAP Species Assessments, a strategy for engaging with Regional Fisheries Management Organisations, work on capacity building in South America, and the waved albatross Action Plan. While these

¹ ACAP Agreement Text Article II, Objective and Fundamental Principles: The objective of this Agreement is to achieve and maintain a favourable conservation status for albatrosses and petrels.

² MOP2 Final Report, paragraph 6.1.22: Parties identified several issues that they considered to be of high priority in the Advisory Committee Work Programme. This included, in no particular order, capacity building, working with RFMOs to reduce seabird-fisheries interactions, addressing the impacts of non-native species, collecting better information on seabird population status and trends and “ACAP Species Assessments”

priorities offer broad guidance, in the future, with likely increasing demands on a limited body of funding, it would be beneficial to undertake assessments of the priority of more specific work areas or tasks relative to each other, and with reference to listed species and the Agreement objective.

Given that achieving the goals of ACAP requires a multi-year ongoing approach, and that activities in any one period will be restricted by fiscal limitations, we propose separating priorities over time, into those most effective in progressing the objective of ACAP in the short-, medium-, and longer-term. Obvious ways to separate actions temporally are to complete the simplest/cheapest actions and those addressing the most severe threats as soon as possible, and delay attending to both simple and more complex actions of higher cost relating to less severe threats.

In this paper, we propose an approach by which actions relevant to progressing the objective of ACAP may be identified and prioritised, guided by objective criteria. The framework we propose reflects both the conservation status of ACAP-listed species and the operational context within which actions addressing threats must be executed. We draw primarily on ACAP-listed species breeding in New Zealand as examples for our approach. Work undertaken under the Agreement will always be affected by factors outside any proposed framework, e.g. the domestic priorities of Parties, relationships between newly proposed and existing work, emerging information, barriers to progress external to the Agreement, and other subjective matters. However, we propose a simple process through which the development of priorities for work programmes can be instigated, prior to overlaying more detailed subjective considerations. We envisage that such a process could be applied in the

short-term, given current levels of knowledge. However, over time, a different approach may well be required, based on a much richer and broader knowledge base. We note that a numeric scoring process has also been proposed for identifying new species to add to Annex 1 of the Agreement³.

Below, we propose some key principles for identifying priority management actions.

Prioritisation principles

ACAP applies to the (currently) 19 recognised albatross and seven petrel species listed in Annex 1 of the Agreement. While the conservation status of albatrosses and petrels is assessed at some level of taxonomic unit (typically species, or subspecies), this status is determined by threats and any actions against threats. Threats often operate at scales smaller than the entire species. Hence, the prioritisation of management actions needs to involve consideration of species conservation status, to flag the species of greatest concern, as well as key individual threats and solutions to those threats.

Principle 1: Prioritising species using conservation status

If one considers that the objective of ACAP is to achieve and maintain a favourable conservation status for albatrosses and petrels⁴, extinction of listed species could represent ultimate failure of the Agreement. Therefore, a robust first step to prioritising work on ACAP species can be made by an examination of IUCN threat status⁵. This classification system uses clearly specified criteria applied through a

³ ACAP AC3 Document 18: Listing of new species

⁴ ACAP Agreement Text Article II, Objective and Fundamental Principles: The objective of this Agreement is to achieve and maintain a favourable conservation status for albatrosses and petrels.

⁵ www.redlist.org

documented process, e.g. including taking into account population declines of a specified magnitude and contraction of geographic range⁶. Note that while ACAP parties may also have their own domestic threat classification systems⁷, given the global nature of ACAP, we will only consider the IUCN classification here. The species listed in Annex 1 include those ranging in status from critically endangered to near threatened.

Thus, we propose that, all other things being equal, the most threatened species should be considered the highest priorities for conservation actions. Coincident with this approach, the IUCN Red List of Threatened Species has been agreed by the second session of the Meeting of Parties as an interim headline indicator of the success of ACAP, in the absence of other approaches emerging from the working groups of the Agreement so far⁸.

Principle 2: Prioritising management actions to conservation problems

After ascertaining conservation status, the next step in our prioritisation process is to identify the most pressing threats to species, and the most appropriate actions to address threats. Seabirds may be threatened by a range of agents, both on their breeding sites and at sea when foraging, and the work programmes of the working groups associated with ACAP reflect this. Threats affecting ACAP-listed seabirds at their breeding sites are described in some detail by site in the database developed by the Breeding Sites Working Group. The scope and severity of threats on seabirds is

⁶ www.iucnredlist.org/info/categories_criteria2001

⁷ e.g. <http://www.doc.govt.nz/upload/documents/science-and-technical/sap236.pdf>;
<http://www.doc.govt.nz/upload/documents/science-and-technical/sap236a.pdf>

⁸ Agreement on the Conservation of Albatrosses and Petrels: Report of the Second Session of the Meeting of Parties, 2006, Annex 8, Resolution 2.8

also recorded in this database⁹. For at-sea threats, 'sites' in which threats apply will almost certainly be larger scale as well as less clearly defined than in terrestrial settings, but are nevertheless generally broadly identifiable. For example, seabirds may move through and focus foraging activities in the certain areas of ocean, and encounter known threats in those areas^{10,11}.

Some threats can be remedied by site-based actions, e.g. climate change. These threats are not pursued further here. The effects of these would be monitored indirectly as part of the Status and Trends Working Group's ongoing database updates¹². However, we recognise that if there are threats affecting a species that cannot be addressed, the importance of implementing actions to resolve addressable threats could increase. Such a situation could affect the prioritisation of actions.

Once threats have been identified as able to be remedied, identifying how readily they can be addressed is key to prioritising actions. We propose that there are three main factors which bear on the likelihood that actions addressing threats will be successful:

- requirement for resources (e.g. funding, availability of required human capacity),
- existence of governance structures through which threats can be addressed (e.g. political context, government bodies etc.), and,
- knowledge (i.e. can existing knowledge be used to address threats or is more knowledge necessary).

⁹ ACAP AC3 Document 13: Report of the Breeding Sites Working Group 2007 to AC3

¹⁰ BirdLife International 2004. Tracking Ocean Wanderers: The Global Distribution of Albatrosses and Petrels.

¹¹ BirdLife International. 2006. Distribution of albatrosses and petrels in the WCPFC Convention Area and overlap with WCPFC longline fishing effort. WCPFC-SC2 NGO-1, Western Central Pacific Fisheries Commission.

¹² ACAP AC3 Work Programme, section 2: Status and Trends

Assessments of these factors will necessarily be subjective, and could be made in a variety of ways, including a qualitative high – medium – low approach. Key knowledge gaps would also emerge from discussions involved in applying this approach, and work required to fill these gaps could be included in ACAP work programmes.

Taking the above principles together, we would afford the highest priority for implementation to actions relating to species with the most severe threat status, and for threats which can be remedied to provide greatest benefit to the species' population with the lowest resource demand.

However, while this combination may deliver the greatest benefit in terms of progressing the objective of ACAP in a single species context, it does not take into account the fact there are breeding sites and at-sea areas where more than one ACAP species co-occur. Consequently, there may be specific actions that will benefit multiple ACAP-listed species, and we consider that the priority of those actions should be elevated. For example, if multiple ACAP-listed species are foraging in the same ocean area, and the risk of bycatch in that area can be reduced through targeted engagement with one nation or RFMO, that engagement would rank at higher priority than for ocean areas occupied by single species.

Examples

Now, we follow through examples of the prioritisation principles above using several species that breed in New Zealand. While these examples are simple, we employ a numeric scoring system to separate out a final list of ordered priorities. This is to

illustrate how the framework we propose might apply to a full consideration of ACAP species and actions. Clearly, an assessment of all ACAP-listed species populations, threats affecting them, and actions to address threats, would be much more complex.

The numeric scoring system proposed relates to the following factors:

- Conservation status
- Ability to remedy threats
- Likelihood that threats will be successfully remedied
- Required resources
- Likely benefits to target ACAP-listed species
- Likely benefits to other ACAP-listed species

Each of these factors is described below.

Conservation status:

Table 1 lists selected ACAP-listed species that breed in New Zealand in order of most severe to least severe IUCN threat classification, and prescribes an arbitrary numeric value for each threat classification category.

Table 1. IUCN threat status of selected ACAP-listed species that breed in New Zealand.

IUCN classifications are ranked using integers, from most severe threat status (critically endangered, assigned a value of 1), through near threatened (assigned a numeric value of 4).

Common name	Scientific name	IUCN Threat status	Category value
Chatham Albatross	<i>Thalassarche eremita</i>	Critically endangered	1
Antipodean Albatross	<i>Diomedea antipodensis</i>	Vulnerable	3
Black Petrel	<i>Procellaria parkinsoni</i>	Vulnerable	3
White-capped Albatross	<i>Thalassarche steadi</i>	Near threatened	4

Ability to remedy threats:

Using the Breeding Sites Working Group database, we now consider whether threats to example species can be remedied (Table 2).

Table 2: Steps to prioritising actions to improve the conservation status of albatrosses and petrels. Threats that can be addressed are potential targets for future work by ACAP.

Species	Threats*+%	Can be remedied?	Impact of threats*
White-capped albatross	Predation by alien species ⁺ Human disturbance ⁺ Fisheries bycatch [%]	Yes Yes Yes	High Low ?
Antipodean albatross	Predation by alien species ⁺ Fisheries bycatch [%]	Yes Yes	Low ?
Chatham albatross	Extraction (for consumption by humans) ⁺ Natural disaster ⁺ Pathogen ⁺ Fisheries bycatch [%]	Yes No No Yes	Medium Med - High Low ?
Black petrel	Predation by alien species ⁺ Human disturbance ⁺ Fisheries bycatch [%]	Yes Yes Yes	Low Low ?

* Terrestrial threats from 2007 Breeding Sites Working Group database, marine threats not included

⁺ Threat occurs at a breeding site

[%] Threat occurs at sea

Most threats in Table 2 can be remedied, however two threats are recorded for the Chatham albatross that cannot. As noted above, this situation may warrant more subjective elevation of the priority of actions remedying addressable threats.

Likelihood that threats can be successfully remedied:

We next score likelihood of success on the basis of governance arrangements and knowledge (Table 3). Where governance structures and knowledge exist and are well developed, this is scored high. When governance and/or knowledge is weaker, scores are commensurately lower.

Required resources:

The resources required to address threats are assessed qualitatively, with a low resource demand scoring the most favourably.

Likely benefits to target ACAP-listed species:

This factor relates to the perceived impact of addressing the threat on the species population. For example, depending on their severity, threats may have slight to very

significant impacts. Consequently, removing these threats would be expected to have slight to significant impacts on the target ACAP species.

Likely benefits to other ACAP-listed species:

A qualitative assessment is generated of whether addressing specific threats may benefit more than one ACAP-listed species.

The above factors are presented numerically in Table 3. Values are multiplied to produce an overall score. The lower the score, the higher we consider the priority for action to be.

Table 3: Suggested steps to prioritising actions to improve the conservation status of albatrosses and petrels. Values are assigned to produce a ranking of threats by species. Priority rankings of threats are generated by multiplying values from the previous columns. The lowest values represent the highest priorities. Note that lack of knowledge may affect the assessments made here considerably.

Species (1=most threatened)	Threats that can be remedied (from Table 2)	Likelihood of success (considering governance and knowledge) (1=Highest)	Resources required to address threats (1=Lowest, 2=Medium, 3=Highest)	Benefits to target ACAP-listed species likely? (1=High, 2=Med, 3=Low)	Benefits to other ACAP-listed species likely? (1=Yes, 2=Maybe, 3=No)	Priority rankings of threats (Lowest number = Highest priority)	Comments
Chatham albatross 1	Extraction (for consumption by humans)	Medium 2	High 3	2	3	36	The extent of illegal harvesting is unknown.
	Fisheries bycatch	Medium 2	High 3	1	1	6	
Antipodean albatross 3	Predation by alien species	High 1	High 3	3	1	27	While very few Antipodean albatrosses breed there, the removal of predators (Norway rats) at Campbell Island may benefit grey petrels. White-chinned petrels were exterminated from their breeding colony on Campbell Island by Norway rats, and would benefit from rat eradication if they consequently recolonised the island.
	Fisheries bycatch	Medium 2	High 3	1	1	18	
Black petrel 3	Predation by alien species	High 1	High 3	2	3	54	The extent of human disturbance and predation by alien species are well known, and not considered to be significantly threatening the species currently. The extent of bycatch is less well known, but certainly accounts for more recorded adult deaths per year than predation by alien species.
	Human disturbance	Medium 2	Medium 2	3	3	108	
	Fisheries bycatch	Medium 2	High 3	1	1	18	
White-capped albatross 4	Predation by alien species	High 1	High 3	2	1	24	While pigs may significantly reduce the breeding success of this species on Auckland Island, the majority of the population breeds on Disappointment Island which is free of introduced predators. Fisheries bycatch is significant, both in New Zealand waters and internationally.
	Human disturbance	High 1	Low 1	3	3	36	
	Fisheries bycatch	Medium 2	High 3	1	1	24	

Thus, the exercise above orders priorities for addressing threats relating to the conservation of four New Zealand ACAP-listed species as follows, from highest to lowest priority:

- Chatham albatross – fisheries bycatch
- Antipodean albatross and black petrel – fisheries bycatch
- White-capped albatross – predation by alien species, fisheries bycatch
- Antipodean albatross – predation by alien species
- Chatham albatross – extraction for consumption, White-capped albatross – human disturbance
- Black petrel – predation by alien species
- Black petrel - human disturbance

With this list in place, any relevant subjective matters, budgetary issues, and a detailed list of specific actions would need to be developed and considered to progress decisions as to what work ACAP undertook.

Review outcomes of actions

Priority setting is an iterative process, and given the dynamic political and natural environments in which ACAP species occur, we consider that frequent review of priorities is essential. Further, actions may take more than one Advisory Committee intercessional period to implement and complete, and so for the outcomes to be known, we suggest monitoring the progress of actions and undertaking a reassessment of priorities at each ACAP Advisory Committee meeting. Progress on actions should also be included as a discussion item at sessions of the MOP (see below).

As reviews occur, successfully completed actions would be removed from the priority task list, and threats and priorities for actions re-evaluated. If considered beneficial, this sort of framework would readily transpose to the framework of indicators of the success of ACAP, which will also be considered again in future by MOP. That is, actions specifically intended to meet the goals of ACAP would have been undertaken, completed and their effects assessed. If actions were not successful as intended, that too could be examined, with modified or alternative plans developed to approach addressing the same threat. An iterative process would also help highlight knowledge gaps where new knowledge would be required to make it possible, or would facilitate, the addressing of threats (Figure 1).

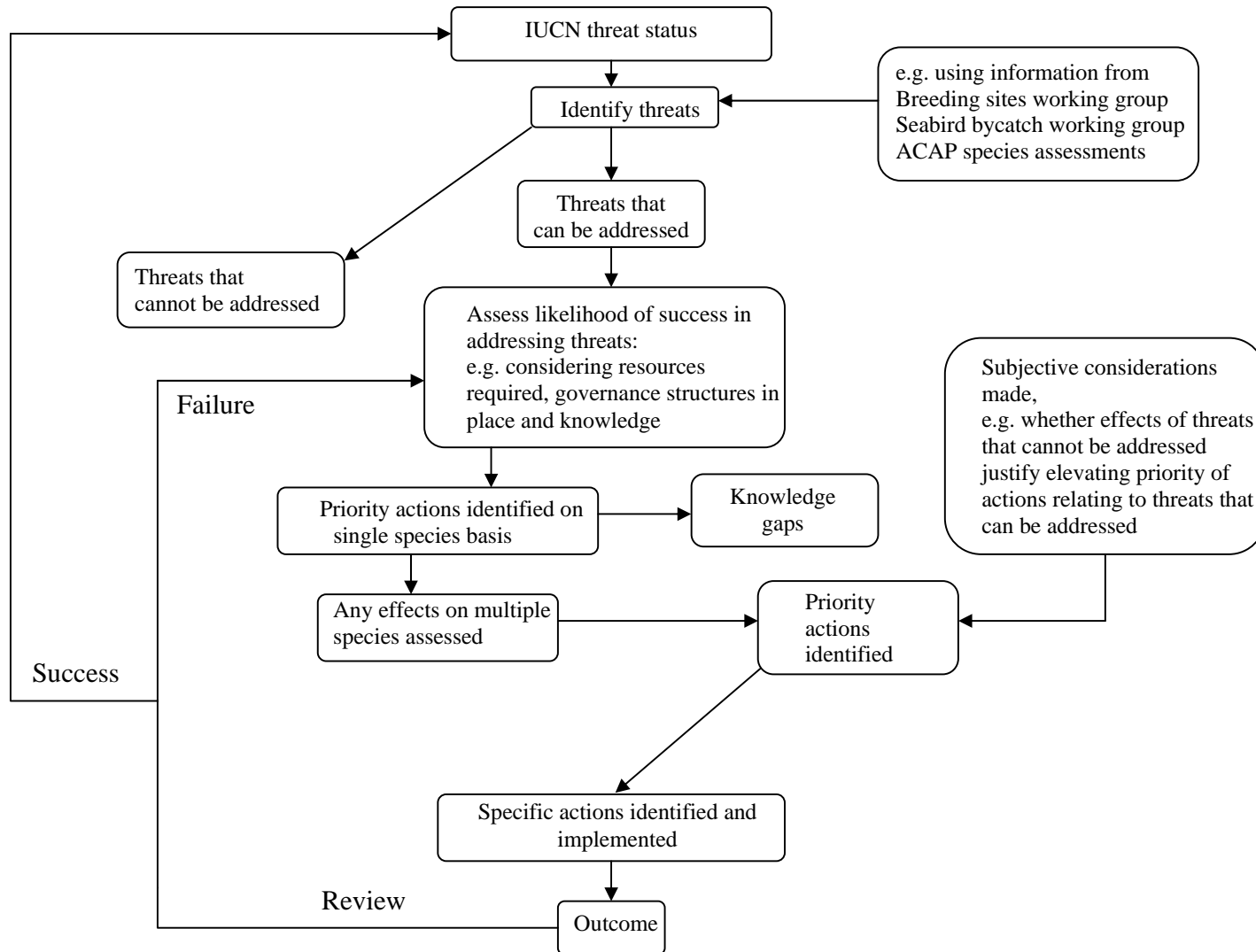


Figure 1. Schematic summary of the proposed approach to prioritisation

Conclusions

There are numerous references through ACAP documents that refer to priorities for work conducted under the Agreement. However, these references are generally to broad areas of work, with no species or threat-based assessment, or separation over time. Given the complexities and numbers of actions required to progress the objective of ACAP, we consider that a more structured approach to setting priorities would be valuable. The approach to priority setting that we suggest above has two main goals: firstly and most importantly, to link the goals of ACAP to specific actions that will improve the conservation status of albatrosses and petrels, and secondly, to develop a stronger framework to support the development of the Advisory Committee Work Programme. However, the setting of priorities always becomes a somewhat subjective matter, even if, at the outset, it is based on a set of objective criteria. The decision to depart from any agreed approach to priority setting may be made at any time, and for many reasons. For example, in the case of more critically threatened species, ACAP Parties may decide to proceed with a set of conservation actions even though these may be expensive, and perhaps have a poor, or unknown, chance of success. Thus, our proposal should not be viewed as one that removes opportunity for more subjective decision-making when that is deemed most appropriate or necessary. Rather, we aim to develop a structure that will deliver strong, clear links between Work Programme tasks undertaken, their results, and progress on the conservation-based objective of the Agreement for listed seabird species.

In summary, the Advisory Committee is requested to:

- **note** the proposed approach to guiding prioritisation of the Advisory Committee Work Programme described in this paper,
- **agree** to develop and recommend to the Meeting of Parties a set of principles and a proposed methodology for prioritising the Advisory Committee work programme
- **agree** to prioritise the Advisory Committee work programme taking into account the agreed principles and methodology
- **note** that the proposed approach recommends a review process to ensure priorities remain relevant and the progress of actions is monitored, and,
- **note** that the proposed methodology is based on currently available information and is therefore interim in nature. It is recommended to move to developing more information-rich prioritisation frameworks as relevant knowledge becomes available