Agreement on the Conservation of Albatrosses and Petrels

Ninth Meeting of the Seabird Bycatch Working Group

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Recommendation on ACAP actions to contribute to Marine Stewardship Council assessment and management of seabird bycatch in marine capture fisheries

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SUMMARY

The Marine Stewardship Council (MSC) is the leading global certification scheme for wild capture marine fisheries. In 2018, 338 fisheries from 38 countries caught over 10 million tonnes of MSC certified seafood, which is 13% of the total global catch by marine capture fisheries. Here we summarize the criteria against which the MSC fisheries standard assesses the sustainability of effects of marine capture fisheries on populations of seabirds and other endangered, threatened and protected species, and provide examples of methods employed to assess population-level effects, management frameworks and information required to support the management system of potential interest to ACAP. The following four recommended ACAP actions would enable ACAP input to the MSC program to pursue employment of ACAP's prescribed best practices for assessing and managing seabird bycatch.

RECOMMENDATIONS

1. Contribute to MSC's fisheries standard review. Every five years, MSC carries out a review of the MSC Fisheries Standard, which presents an opportunity for ACAP to improve the Standard. 16 topics have been identified for review including endangered, threatened and protected species, illegal fishing and ghost gear: https://improvements.msc.org/database/fisheries-standard-review-1
2. Contribute to MSC ongoing advice to Conformity Assessment Bodies on implementation of the fisheries standard.
3. Contribute to MSC governance: Investigate opportunities for ACAP contributions to MSC governance, including the MSC Board of Trustees, Technical Advisory Board, and Stakeholder Council.
4. Participate in stakeholder consultation processes for individual MSC certified fisheries of priority to ACAP: Participate in stakeholder consultation processes of fisheries undergoing full assessment, reassessment, and annual surveillance audits that are a priority to ACAP (i.e., likely have problematic bycatch of ACAP seabird species) to comment on assessment body evaluations of the outcomes, management strategy and information for seabird species, and conditions of certification and client action plans to address identified deficits related to seabird bycatch.

Recomendación sobre las acciones del ACAP para colaborar con el Consejo de Administración del Mar en la evaluación y ordenación de la captura secundaria de aves marinas en la pesca de captura marina

RESUMEN

El Consejo de Administración del Mar (MSC) constituye el principal esquema de certificación a nivel mundial para la pesca de captura —es decir, en estado natural— marina. En 2018, se capturaron más de 10 millones de toneladas de productos marinos certificados por el MSC, lo que representa el 13 % del total de la captura total a nivel mundial efectuada mediante la pesca de captura marina en 338 pesquerías de 38 países . En este documento resumimos los criterios a partir de los cuales el Estándar de Pesquerías MSC evalúa la sostenibilidad de los efectos de la pesca de captura marina en las poblaciones de aves marinas y de otras especies amenazadas y protegidas, y ofrece ejemplos de métodos empleados para evaluar los efectos en los niveles poblacionales, los marcos de ordenación y la información requerida para respaldar el sistema de ordenación que podría ser de interés para el ACAP. Las siguientes cuatro acciones recomendadas del ACAP posibilitarían los aportes del ACAP al programa del MSC en pos de implementar las mejores prácticas recomendadas por el ACAP para la evaluación y ordenación de la captura secundaria de aves marinas.

RECOMENDACIONES

1. Contribuir a la revisión del Estándar de Pesquerías MSC. Cada cinco años, el MSC revisa el Estándar de Pesquerías MSC, lo que constituye una oportunidad para que el ACAP mejore dicho estándar. Se han identificado 16 temas para revisar, entre ellos, las especies en peligro, amenazadas y protegidas, la pesca ilegal y las artes de pesca fantasma: https://improvements.msc.org/database/fisheries-standard-review-1.
2. Colaborar con el MSC a la hora de brindar asesoramiento permanente a organismos de evaluación de conformidad sobre la implementación de los estándares de pesca.
3. Contribuir a la gobernanza del MSC: investigar las oportunidades para el ACAP de contribuir a la gobernanza del MSC, incluida la Junta Directiva, la Junta de Asesoramiento Técnico y el Consejo de Partes Interesadas del MSC.
4. Participar en los procesos de consultas a las partes para cada pesquería MSC certificada que sea prioritaria para el ACAP: participar en los procesos de consulta a las partes interesadas de las pesquerías sometidas a evaluaciones, revisiones y auditorías de supervisión anuales que son prioritarias para el ACAP (por ejemplo, aquellas que tienen una captura problemática de especies de aves marinas del ACAP) para comentar sobre los análisis que efectúan los organismos de evaluación de los resultados, la estrategia de ordenación y la información sobre especies de aves marinas, así como las condiciones de certificación y los planes de acción de los clientes para abordar las falencias en torno a la captura secundaria de aves marinas.

Recommandations sur les actions à prendre par l'ACAP pour contribuer à l'évaluation du Marine Stewardship Council [conseil pour la bonne gestion des mers] et à la gestion de la capture accessoire d'oiseaux de mer dans les pêches de capture marines

RÉSUMÉ

Le Marine Stewardship Council (MSC) [conseil pour la bonne gestion des mers] est le principal cadre de certification mondial pour les pêches de capture marines sauvages. En 2018, 338 pêcheries réparties dans 38 pays ont capturé plus de 10 millions de tonnes de produits de la mer certifiés MSC, ce qui représente 13 % du total des captures réalisées par les pêches de capture dans le monde. Nous présentons ici de manière succincte les critères selon lesquels la norme pour les pêches MSC évalue la durabilité des effets des pêches de capture marine sur les populations d'oiseaux de mer et d'autres espèces en danger, menacées et protégées, et nous fournissons des exemples de méthodes employées pour évaluer les effets sur les niveaux de population, les cadres de gestion et les informations nécessaires pour appuyer le système de gestion pouvant présenter un intérêt pour l'ACAP. Les quatre actions suivantes, recommandées à l'ACAP, permettraient à l'ACAP d'apporter sa contribution au programme MSC afin de maintenir l'utilisation des bonnes pratiques prescrites par l'ACAP en matière d'évaluation et de gestion de la capture accessoire des oiseaux de mer.

RECOMMANDATIONS

1. Contribuer à la révision du référentiel pêcheries du MSC. Tous les cinq ans, le programme MSC procède à une révision de son référentiel pêcheries, qui constitue l'occasion pour l'ACAP d'améliorer les normes. Quelque 16 sujets ont été identifiés pour la révision comprennent les espèces en danger, menacées, et protégées, la pêche illégale et les engins fantômes : https://improvements.msc.org/database/fisheries-standard-review-1
2. Contribuer aux avis émis par le MSC aux organismes d'évaluation de la conformité sur la mise en œuvre du référentiel pêcheries.
3. Contribuer à la gouvernance MSC : Examiner comment l'ACAP peut contribuer à la gouvernance du MSC, notamment le conseil d'administration du MSC, le Conseil consultatif technique et le Conseil des parties prenantes.
4. Participer aux processus de consultation des parties prenantes pour les pêcheries individuelles certifiées MSC qui sont prioritaires pour l'ACAP : Participer aux processus de consultation des parties prenantes issues de pêcheries qui font l'objet d'une évaluation complète, d'une réévaluation et d'audits annuels de surveillance qui sont une priorité pour l'ACAP (c.-à-d. ont probablement un problème de capture accessoire des espèces d'oiseaux de mer inscrits à l'ACAP) pour émettre des commentaires sur les organismes d'évaluation des résultats, de la stratégie de gestion et des informations pour les espèces d'oiseaux de mer, et les conditions de certification et les plans d'action clients visant à combler les déficits identifiés liés à la capture accessoire d'oiseaux de mer.

1. WHAT IS THE MSC AND THE MSC FISHERIES STANDARD?

The Marine Stewardship Council (MSC) is the leading global certification scheme for wild capture marine fisheries. Established by WWF and Unilever, MSC became an independent non-profit non-governmental organization in 1997 (see www.msc.org/about-the-msc/our-history for a detailed historical account). Building on the UN Food and Agriculture Organization (FAO) Code of Conduct for Responsible Fisheries, the UN Fish Stocks Agreement and other international fisheries agreements, from 1996 to 1999 MSC developed their principles, criteria and fisheries standard. Fisheries can achieve MSC fisheries certification if they pass an assessment against the MSC fisheries standard. Assessments are conducted by third parties – MSC does not conduct assessments or certify fisheries, but instead establishes the fisheries standard and processes for assessment and certification. MSC also has a Chain of Custody standard for wild capture fisheries, which is also implemented through third party assessment and certification.

In 2018, 338 fisheries from 38 countries caught over 10 million tonnes of MSC certified seafood, made up of 141 species. This is 13% of the total global catch by marine capture fisheries. The retail market value of MSC certified seafood is about US$8.4 billion.

2. PRINCIPLE 2 PERFORMANCE INDICATORS OF RELEVANCE TO ACAP

Under the MSC fisheries standard, endangered, threatened and protected (ETP) species are designated as follows:

a. Species that are recognised by national ETP legislation
b. Species listed in binding international agreements (including species listed in ACAP Annex 1)
c. Species classified as 'out of scope' (amphibians, reptiles, birds and mammals) that are listed in the IUCN Red List as vulnerable, endangered or critically endangered.

ETP species are evaluated against three performance indicators (PIs), described below. For each ETP PI, we present MSC's scoring guide posts for a score of 60, 80 and 100. The decision rule for MSC certification is that no PI can score below 60, and the aggregate score for each principle, must be ≥ 80 (the aggregate score for each Principle is the sum of the weighted score of each Performance Indicator within that Principle). Not summarized in this working paper, seabird species that do not meet the MSC ETP definition may be assessed against the Principle 2 Secondary Species PIs.

PI 2.3.1. Endangered, Threatened and Protected Species Outcome

PI 2.3.1		**The UoA meets national and international requirements for the protection of ETP species** **The UoA does not hinder recovery of ETP species**		
Scoring Issue		SG 60	SG 80	SG 100
a	Effects of the UoA on population/stock within national or international limits, where applicable			
	Guide post	Where national and/or international requirements set limits for ETP species, the effects of the UoA on the population/stock are known and **likely** to be within these limits.	Where national and/or international requirements set limits for ETP species, the **combined effects of the MSC UoAs** on the population/stock are known and **highly likely** to be within these limits.	Where national and/or international requirements set limits for ETP species, there is a **high degree of certainty** that the **combined effects of the MSC UoAs** are within these limits.
b	Direct effects			
	Guide post	Known direct effects of the UoA are likely to not **hinder recovery** of ETP species.	Known direct effects of the UoA are **highly likely** to not **hinder recovery** of ETP species.	There is a high degree of confidence that there are no significant detrimental direct effects of the UoA on ETP species.
c	Indirect effects			
	Guide post		Indirect effects have been considered and are thought to be **highly likely** to not create unacceptable impacts.	There is a high degree of confidence that there are no significant detrimental indirect effects of the fishery on ETP species.

PI 2.3.2. Endangered, Threatened and Protected Species Management Strategy

PI 2.3.2		**The UoA has in place precautionary management strategies designed to:** • **meet national and international requirements;** • **ensure the UoA does not hinder recovery of ETP species.** **Also, the UoA regularly reviews and implements measures, as appropriate, to minimise the mortality of ETP species.**		
Scoring Issue		SG 60	SG 80	SG 100
a	Management strategy in place (national and international requirements)			
	Guide post	There are **measures** in place that minimise the UoA-related mortality of ETP species, and are expected to be **highly likely to achieve** national and international requirements for the protection of ETP species.	There is a **strategy** in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to be **highly likely to achieve** national and international requirements for the protection of ETP species.	There is a **comprehensive strategy** in place for managing the UoA's impact on ETP species, including measures to minimise mortality, which is designed to **achieve above** national and international requirements for the protection of ETP species.
b	Management strategy in place (alternative)			
	Guide post	There are **measures** in place that are expected to ensure the UoA does not hinder the recovery of ETP species.	There is a **strategy** in place that is expected to ensure the UoA does not hinder the recovery of ETP species.	There is a **comprehensive strategy** in place for managing ETP species, to ensure the UoA does not hinder the recovery of ETP species
c	**Guide post**	The measures are **considered likely** to work, based on **plausible argument** (e.g. general experience, theory or comparison with similar fisheries/species).	There is an **objective basis for confidence** that the measures/strategy will work, based on **information** directly about the fishery and/or the species involved.	The strategy/comprehensive strategy is mainly based on information directly about the fishery and/or species involved, and a **quantitative analysis** supports **high confidence** that the strategy will work.
d	Management strategy implementation			
	Guide post		There is some **evidence** that the measures/strategy is being implemented successfully.	There is **clear evidence** that the strategy/comprehensive strategy is being implemented successfully and is achieving
e	Review of alternative measures to minimize mortality of ETP species			
	Guide post	There is a review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species.	There is a **regular** review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality of ETP species and they are implemented as appropriate.	There is a **biennial** review of the potential effectiveness and practicality of alternative measures to minimise UoA-related mortality ETP species, and they are implemented, as appropriate.

PI 2.3.3. Endangered, Threatened and Protected Species Information

PI 2.3.3		Relevant information is collected to support the management of UoA impacts on ETP species, including: • Information for the development of the management strategy; • Information to assess the effectiveness of the management strategy; and • Information to determine the outcome status of ETP species.		
Scoring Issue		SG 60	SG 80	SG 100
a	Information adequacy for assessment of impacts			
	Guide post	Qualitative information is **adequate to estimate** the UoA related mortality on ETP species. OR If RBF is used to score PI 2.3.1 for the UoA: Qualitative information is **adequate to estimate productivity and susceptibility** attributes for ETP species.	Some quantitative information is **adequate to assess** the UoA related mortality and impact and to determine whether the UoA may be a threat to protection and recovery of the ETP species. OR If RBF is used to score PI 2.3.1 for the UoA: Some quantitative information is adequate to assess productivity and susceptibility attributes for ETP species.	Quantitative information is available to assess with a high degree of certainty the **magnitude of UoA-related impacts, mortalities and injuries and the consequences for the status** of ETP species.
	Information adequacy for management strategy			
b	**Guide post**	Information is adequate to support **measures** to manage the impacts on ETP species.	Information is adequate to measure trends and support a **strategy** to manage impacts on ETP species.	Information is adequate to support a **comprehensive strategy** to manage impacts, minimize mortality and injury of ETP species, and evaluate with a **high degree of certainty** whether a strategy is achieving its objectives.

3. POTENTIAL AREAS OF ACAP INTEREST TO AUGMENT ASSESSMENTS FOR ENDANGERED, THREATENED AND PROTECTED SEABIRD SPECIES

ACAP involvement, in some capacity, in the MSC program could contribute to addressing deficits in how the MSC program assesses fisheries under Principle 2 for effects on bycatch species, identified as a problem by MSC (MSC. 2018. *Program Improvements Database. MSC Requirements on Endangered, Threatened or Protected (ETP) Species*, https://improvements.msc.org/database/etp-review) and BirdfLife International (Crespo, J., Crawford, R. 2018. *Bycatch and the Marine Stewardship Council (MSC): A Review of the Efficacy of the MSC Certification Scheme in Tackling the Bycatch of Non-target Species*).

The MSC fisheries standard would be strengthened from MSC adoption of standardized processes for Conformity Assessment Bodies to employ to determine with high rigor and consistency whether adequate information is available on ETP species. For instance, PI 2.3.3 should be improved to have assessment bodies determine if observer programs (conventional at-sea observers and electronic monitoring systems) are adequately designed to address sources of statistical sampling bias, and have requisite observer coverage rates that employ suitable data collection fields and methods, which depend on: (i) the objectives of analysis, including required levels of accuracy and precision of ETP catch rates, and (ii) aspects of each individual fishery – such as how many vessel classes exist, how many ports are used, the spatial and temporal distribution of effort, the frequency of occurrence of catch interactions for each species of interest, the amount of fishing effort, and the spatial and temporal distribution of catch. In general, variability in precision and biases in bycatch estimates decrease rapidly as the observer coverage rate increases to 20%, assuming that the sample is balanced and there are no observer effects. However, fisheries, including those with potentially problematic seabird bycatch, have been certified against the MSC fisheries standard with extremely low observer coverage rates and with observer program designs that introduce problematic sources of sampling bias. Furthermore, there is a need for improvement in consistency in how assessment bodies determine whether there is adequate information to determine which

individual populations and stocks are susceptible to fishing mortality, a prerequisite often ignored in assessments to determine whether a fishery is risking irreparable harm to affected populations under PI 2.3.1.

There is a need to for improved rigor and consistency in assessment body determinations of whether management frameworks are adequate under principle 2. There has been inconsistent methods employed by assessment bodies to determine whether management systems are adequate to prevent irreparable harm to ETP populations. Ideally, the same criteria employed to assess the adequacy of the management system for target stocks under principle 1 would also be employed for species assessed under principle 2. A robust and precautionary approach for bycatch management under MSC, including for ETP species, would be to require assessment bodies to determine if a robust harvest strategy is in place for ETP species. Elements of harvest strategies include:

a. A management objective for the stock/population
b. Target reference point selected based on ecological and socioeconomic considerations
c. Limit referent point selected to constrain fishing mortality to within safe biological limits
d. Acceptable levels of risk of exceeding thresholds
e. A monitoring strategy to assess performance against reference points
f. A harvest control rule with pre-agreed management actions that are triggered when there is a change in status of a stock/population with respect to the reference points that keep the stock/population near its target and above its limit thresholds, and
g. Management strategy evaluation to evaluate the likely performance of alternative control rules against operational management objectives, including risk assessment, such as uncertainty with stock assessments.

Furthermore, under PI 2.3.2, the MSC standard requires improvements in consistency in assessment body's identification of gear-specific best practices to mitigate bycatch when it requires reduction, by taxa of conservation concern, and that account for cross-taxa conflicts. For instance, if a client action plan includes an activity to introduce night setting to reduce bycatch rates of diurnal foraging seabird species, assessment bodies assess the adequacy of this planned action against MSC guidance on potential cross-taxa conflicts that can result from night setting (see Gilman et al 2019. Robbing Peter to pay Paul: Replacing unintended cross-taxa conflicts with intentional tradeoffs by moving from piecemeal to integrated fisheries bycatch management. *Reviews in Fish Biology and Fisheries* 29: 93-123).

The MSC standard also requires improvement in the rigor and consistency of how bodies assess fisheries against PI 2.3.1 to determine whether a fishery is risking protracted or irreparable harm to individual populations. In many cases, information on which individual populations and stocks that are caught in a fishery under assessment is not available, and robust assessments of effects from direct and indirect fishing mortality in in individual and combined MSC fisheries on affected populations are not undertaken.

Here we present a sample of examples of how Conformity Assessment Bodies have assessed ETP seabird species against MSC PIs 2.3.1, 2 and 3 which may present opportunities for ACAP to pursue more rigorous assessment approaches. Two of the examples refer to the 2018 MSC public certification report for the French Polynesia albacore and yellowfin tuna pelagic longline fishery.

a. PI 2.3.1a: If national and international measures do not set species-specific limits (thresholds) for ETP species, then the assessor does not score against this criterion. The result of this is that, if the management system has deficits that are not accounted for under PI 2.3.2 (which is likely given the current assessment protocols under the ETP management criterion), then there the fishery could pass MSC without there being high certainty that the fishery is not causing protracted or irreparable harm to affected populations and stocks considered under principle 2.

b. PI 2.3.1b: In fisheries that overlap with the distributions of endangered and threatened seabird populations that are susceptible to capture in the gear type in question, lacking information on population-specific risks, assessors have employed qualitative assessments as the basis for determining whether fishing mortality levels are likely to be hindering the recovery of populations of ETP species. For example, the French Polynesia tuna longline fishery, which may annually capture ca. 167 petrels of unknown species (raised linearly from observed petrel species captures: 17 petrels not identified to the species level observed captured in 3 years from 3.4% observer coverage), overlaps with endangered and threatened seabird populations, and has not had semi-quantitative or quantitative ecological risk assessments conducted, was assessed to pass SG 60 (likely to not hinder recovery of any seabird population) based on there being low catch levels of seabirds, providing "some confidence that impacts are likely to be small". A more robust and precautionary approach would be for assessors to employ semi-quantitative or quantitative ecological risk assessments to determine with higher certainty whether risks to populations of ETP species are acceptable and sustainable under the MSC standard. Numerous analytical approaches are available for quantitative ERAs of the effects of fishing to define threshold population sizes and fishing mortality rates beyond which populations are at risk of irreparable harm or extirpation, with a range of data requirements and concomitant range in certainty in outcomes.

c. PI 2.3.1c: Assessors do not comprehensively account for the broad range of potential collateral, indirect effects of capture fisheries on seabird populations, including (e.g., the French Polynesia assessment considered disturbance around nesting and roosting areas):
    - Undetected pre-catch (estimated to be 30-50% of observed catch for seabirds in pelagic longline fisheries)
    - Competition for prey
    - Altered diet from scavenging bait
    - For some seabird species, including albatrosses, fishing mortality of one seabird of a breeding pair typically results in chick mortality by starvation, and the remaining seabird will take several years before mating again, further reducing reproductive output
    - Tunas, and possibly other pelagic apex predators bring baitfishes to the surface; consequently, reducing the abundance of large pelagic predators by fishing in turn reduces the availability of prey to seabirds, contributing to increased vulnerability to starvation and other stressors that could lead to mortality

d. PI 2.3.2. Fisheries identified as having problematic seabird bycatch are not required to be managed by employing ACAP best practices.