 <p data-bbox="213 546 454 584">Agreement on the Conservation of Albatrosses and Petrels</p>	<p data-bbox="555 237 1404 327"><b>Seventh Meeting of the Seabird Bycatch Working Group</b></p> <p data-bbox="887 342 1404 383"><i>La Serena, Chile, 2 - 4 May 2016</i></p> <p data-bbox="544 456 1345 607"><b>Revised National Plan of Action to reduce seabirds bycatch in Uruguayan fisheries (NPOA-Seabirds 2015)</b></p> <p data-bbox="547 629 1345 669"><b><i>Sebastián Jiménez, Oscar Pin, Andrés Domingo</i></b></p>
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### SUMMARY

Uruguay has recently revised the NPOA-Seabirds. The NPOA-Seabirds 2015 establishes the following mitigation measures. Vessels operating with pelagic longline: obligatorily use of I) night setting in combination with at least one of the following two measures: II) bird scaring line and / or III) weight  $\geq 60\text{g}$  attached in the branch lines within 1m of the hook. Vessels operating with demersal longline fishing for Patagonian toothfish (*Dissostichus eleginoides*) and related species: i) Mammals and Birds Excluding Device (DEMA, i.e. drop lines with nets) or II) minimum weight on the line that ensures sink rate  $\geq 0.3\text{m/s}$  at 10m depth, in combination with one of the following two measures: A) bird scaring line or B) night setting. In the event that other demersal longline or semi-pelagic fisheries start operating in the near future, mitigation measures are as follow: I) minimum weight on the line in combination with one of the following two measures: A) bird scaring line or B) night setting. The impact of the trawl fishery for Argentinean hake (*Merluccius hubbsi*) is currently under research. Under a precautionary approach, to reduce seabird mortality in trawl cables the use of the following mitigation measures is recommended: I) bird scaring line and II) reduce discards. In order to reduce the capture of birds on the net the following measures are recommended: I) cleaning up the net before setting and II) reduce the exposure time of the net on the surface of the sea.

## **Plan de Acción Nacional revisado para reducir la captura secundaria de aves marinas en pesquerías uruguayas (PAN-Aves de 2015)**

### RESUMEN

Recientemente, Uruguay ha revisado el PAN-Aves, que para 2015 establece medidas de mitigación según las cuales los barcos de pesca con palangre pelágico están obligados a

implementar I) el calado nocturno en combinación con al menos una de las siguientes dos medidas: II) uso de una línea espantapájaros y/o III) de una pesa  $\geq 60$  g en las brazoladas a un máximo de 1 m del anzuelo. Los barcos de pesca con palangre demersal de merluza negra (*Dissostichus eleginoides*) y especies afines deben usar I) un Dispositivo Excluidor de Mamíferos y Aves (DEMA, es decir, espineles con redes) o II) una pesa mínima en la línea que asegure una tasa de hundimiento  $\geq 0,3$  m/s a 10 m de profundidad, en combinación con una de las siguientes medidas: A) una línea espantapájaros o B) el calado nocturno. En el caso de que otras pesquerías semipelágicas o con palangre demersal comiencen a operar en un futuro próximo, deben aplicarse las siguientes medidas de mitigación: I) una pesa mínima en la línea, en combinación con A) una línea espantapájaros o B) el calado nocturno. El efecto de la pesquería de arrastre de merluza común (*Merluccius hubbsi*) se está investigando en la actualidad. Como enfoque precautorio, se recomienda aplicar las siguientes medidas de mitigación a fin de reducir la mortalidad de aves marinas causada por los cables de arrastre: I) uso de líneas espantapájaros y II) reducción de desechos. Se recomienda aplicar las siguientes medidas a fin de reducir la captura de aves en redes: I) limpieza de la red antes del calado y II) reducción del tiempo de exposición de la red sobre la superficie del mar.

## **Plan d'action national révisé pour réduire la capture accessoire d'oiseaux marins dans les pêcheries d'Uruguay (PAN-Oiseaux de mer 2015)**

### **RÉSUMÉ**

L'Uruguay a récemment révisé le PAN-oiseaux de mer. Le PAN-oiseaux de mer 2015 établit les mesures d'atténuation suivantes. Navires qui pratiquent la pêche pélagique à la palangre : usage obligatoire I) d'une pose nocturne des lignes simultanément avec l'une au moins de ces deux mesures : II) un dispositif d'effarouchement des oiseaux et/ou III) un lest de  $\geq 60$  g attaché aux lignes secondaires à moins d'un mètre de l'hameçon. Navires qui pratiquent la pêche démersale à la palangre de Légine australe (*Dissostichus eleginoides*) et des espèces liées: I) dispositif d'exclusion des mammifères et des oiseaux (DEMA, c.a.d. lignes dormantes avec filets) ou II) lestage minimum de la ligne pour assurer une vitesse d'immersion  $\geq 0.3$  m/s à 10 m de profondeur, associé à l'une des deux mesures suivantes : A) dispositif d'effarouchement des oiseaux ou B) installation nocturne des lignes. Dans le cas où d'autres pêcheries démersales ou semi-pélagiques à la palangre opèrent dans un avenir proche, les mesures d'atténuation suivantes s'appliquent: I) lestage minimum de la ligne associé à l'une des deux mesures suivantes : A) dispositif d'effarouchement des oiseaux ou B) installation nocturne des lignes. L'impact de la pêche au chalutier sur le Merlu austral (*Merluccius hubbsi*) est en cours d'étude. D'après un principe de précaution pour réduire la mortalité causée par les câbles des chalutiers, il est recommandé de suivre les mesures d'atténuation suivantes : I) dispositif d'effarouchement des oiseaux et II) réduction des rejets. Afin de réduire la capture d'oiseaux dans les filets, les mesures suivantes sont recommandées : I) nettoyage du filet avant son installation et II) réduction du temps d'exposition du filet sur la surface de la mer.

## 1. INTRODUCTION

Uruguay has recently revised the National Plan of Action for reduce the seabird bycatch in Uruguayan fisheries (NPOA-Seabirds Uruguay). The NPOA-Seabirds 2015 establishes mitigation measures for the fisheries where bycatch has been detected, research needs, monitoring and control measures, among other actions required for it implementation. The document also reviewed the priority species for the conservation in the Uruguayan fisheries (Detailed in the Annex 4 of the NPOA- Seabirds 2015). Here we summarize the mitigation measures established by the NPOA-Seabirds 2015 for all the fisheries with reported seabird mortality in Uruguay. The full document, in Spanish, can be found at

[http://www.dinara.gub.uy/files/Publicaciones/Pesca/PAN\\_28-8-2015.pdf](http://www.dinara.gub.uy/files/Publicaciones/Pesca/PAN_28-8-2015.pdf)

## 2. MITIGATION MEASURES

The best mitigation measures established for each fishery were determined after a revision of the available information. This is available in detail in the Annex 3 of the NPOA-Seabirds Uruguay 2015. For the pelagic longline fishery, the mitigation measures set out below are based on evidence from studies in Uruguay. For the other fisheries, the results obtained in Uruguay were complemented with results from elsewhere, and are based on internationally recognized best practices supported by scientific evidence. In all cases, it is considered that the mitigation measures established here are currently the best practices to reduce seabird bycatch in Uruguay. The research needs listed in the NPOA-Seabirds 2015 could improve the performance of some measures, and therefore current specifications should be modified. The “*Dirección Nacional de Recursos Acuáticos*” (DINARA) should update the specifications when necessary.

### 2.1. Pelagic longline

The NPOA-Seabirds 2015 establishes the following mitigation measures for vessels operating with pelagic longline: obligatory use of I) night setting in combination with at least one of the following two measures: II) bird scaring line and / or III) weight  $\geq 60\text{g}$  attached in the branch lines within 1m of the hook.

The simultaneously use the three measures is encouraged as the most effective practice. The measures must meet the minimum specifications and recommendations detailed on the NPOA-Seabirds Uruguay 2015 (not detailed in this document, but see a schematic representation in Fig. 1). Additionally, several guidelines are provided. The guidelines for the streamer lines are as follows: It should be dragged from a minimum height, measured at the stern of the boat, of 6 m above the sea level, for which a pole or attachment point should be used. The streamer line should reach an aerial coverage between 75 and 100m from the stern of the vessel. Because the aerial coverage can vary widely by wave action, setting speed, wind intensity and direction, this coverage may reach a minimum of 50 m, provided that the detailed specifications for the streamer lines were followed. In large vessels (> 35m in length) where entangles between the streamer lines and the fishing gear are less frequent, the streamer lines should be dragged from the vessel side where the hooks are being setting, so that the device operates on the area that they sink.

Other weight regimes that are different to a weight  $\geq 60\text{g}$  attached in the branch lines within 1m of the hook should not be considered mitigation measures. When this mitigation measure

is not used, vessels operating with American or Spanish longline styles, in addition to the night setting and use of streamer line should use weight  $\geq 60\text{g}$  on branch lines at a distance of no more than 4.5 m from the hook.

It is recognized that current mitigation measures are not enough to bring seabird mortality to zero. After their implementation, is expected to achieve the objective of bycatch rates:  $\leq 0.05$  birds / 1000 hooks.

## 2.2. Demersal longline

The NPOA-Seabirds 2015 establishes the following mitigation measures for vessels operating demersal longline fishing for Patagonian toothfish (*Dissostichus eleginoides*) and related species: i) Mammals and Birds Excluding Device (MBED, also known as drop lines with nets) or II) minimum weight on the line that ensures sink rate  $\geq 0.3\text{m/s}$  at 10m depth, in combination with one of the following two measures: A) bird scaring line or B) night setting.

The simultaneously use of a greater number of mitigation measures than the minimum established is encouraged. There are also minimum specifications and guidelines for each measurement detailed on the NPOA-Seabirds Uruguay 2015. A schematic representation of the Mammals and Birds Excluding Device (MBED) is given in Fig. 2. When MBED is not used, vessel are required to use the following weight regime, plus either night setting or streamer line: a minimum weight of 5 kg when metal (iron or steel), 6kg when concrete and 8.5 kg when stones, and at intervals not exceeding 40m. Other weight regimes will be considered mitigation measures, provided they achieve sinking rates  $\geq 0.3 \text{ ms}^{-1}$  to 10m depth.

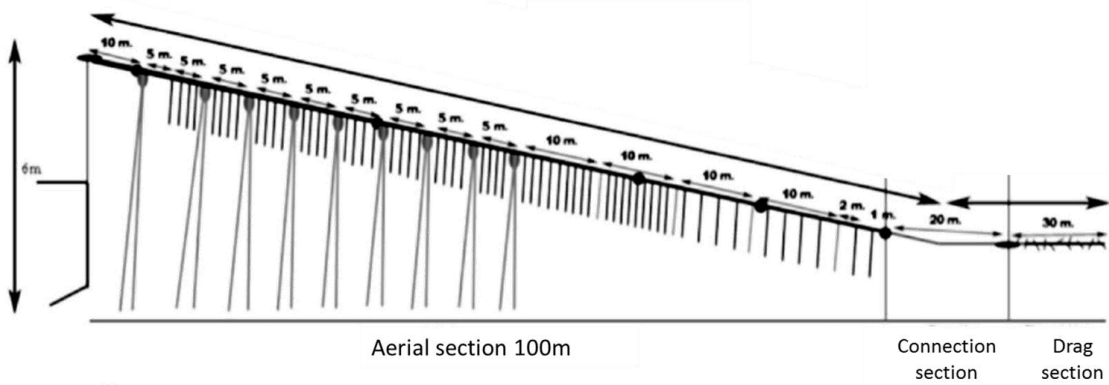
The seabird bycatch in the demersal longline fishery is currently considered to be zero. With the implementation of the mitigation measures of the NPOA-Seabirds 2015 it is expected to keep the null levels of seabird mortality.

## 2.3. Other longline fisheries

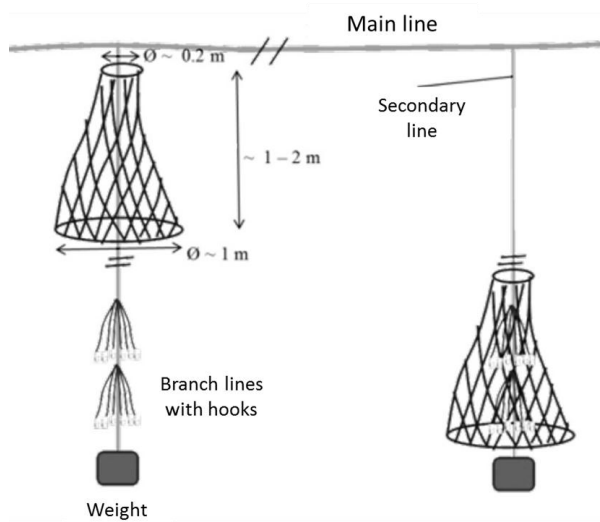
In the event that other demersal or semi-pelagic longline fisheries start operating in the near future, mitigation measures are as follow: I) minimum weight on the line in combination with one of the following two measures: A) bird scaring line or B) night setting. The measures must meet the minimum specifications and guidelines detailed on the NPOA-Seabirds 2015 for demersal longline fishery. In the case that certain specific measures become the best practices for a given fishery, DINARA will set the adequate set of measures along with their specifications.

## 2.4. Trawl fishery

The impact of the trawl fishery for Argentinean hake (*Merluccius hubbsi*) is currently under research. The DINARA will stablish the set of mitigation measures along with their specifications after finishing this research. However, the seabird mortality issue in this fishery has already been detected. Therefore, considering the current recommendations of the Seabird Bycatch Working Group of the Agreement on the Conservation of Albatrosses and Petrels, under a precautionary approach, in order to reduce seabird mortality in trawl cables the use of the following mitigation measures is recommended: I) bird scaring line and II) reduce discards. Additionally, in order to reduce the capture of birds on the net the following measures are recommended: I) cleaning up the net before setting and II) reduce the exposure time of the net on the surface of the sea.



**Figure 1.** Schematic representation of the streamer line.



**Figure 2.** Schematic representation of the Mammals and Birds Excluding Device (MBED).