

 <p>Agreement on the Conservation of Albatrosses and Petrels</p>	<p>Fifth Meeting of the Seabird Bycatch Working Group <i>La Rochelle, France, 1-3 May 2013</i></p> <p>Albatross Task Force: advances in mitigation research</p> <p><i>BirdLife International</i></p>
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SUMMARY

Since 2006, the Albatross Task Force (ATF) has made an important contribution to mitigation measure development and experimental research in pelagic longline, demersal longline, demersal trawl and artisanal longline fisheries in South America and southern Africa. On board monitoring has provided seabird mortality estimates for several fleets where information did not previously exist and comparative trials of mitigation measures against control treatments of no mitigation have repeatedly demonstrated significant reductions in the impact on vulnerable species of seabird with no significant reduction in target fish species. The ATF has also been instrumental in trialling new mitigation technology for pelagic longlines, such as Safe Leads and hook pods.

Albatross Task Force: avances en las investigaciones sobre medidas de mitigación

Desde 2006, la Albatross Task Force (ATF) ha realizado importantes aportes al desarrollo de medidas de mitigación e investigaciones experimentales sobre la pesca con palangre pelágico, con palangre demersal, la pesca de arrastre demersal y las pesquerías artesanales con palangre en América del Sur y África del Sur. El monitoreo a bordo ha proporcionado estimaciones sobre la mortalidad de aves marinas para varias flotas donde no existía información previamente, y los ensayos comparativos de las medidas de mitigación frente a los tratamientos de control sin ninguna medida de mitigación han demostrado reiteradamente reducciones significativas en el efecto en las especies de aves marinas vulnerables, sin ninguna reducción significativa en las especies de peces objetivo. La ATF también contribuyó decisivamente en la prueba de nueva tecnología de mitigación para los palangres pelágicos, tales como el uso de Safe Leads y Hook Pods.

Albatross Task Force: les grandes avancées dans la recherche sur l'atténuation

Depuis 2006 l'Albatross Task Force (ATF) a contribué de manière significative au développement de mesures d'atténuation et à la recherche expérimentale sur les palangriers pélagiques, les palangriers de fond, les chaluts de fond et les pêcheries artisanales à la palangre en Amérique du Sud et en Afrique australe. Le contrôle effectué à bord des navires a résulté en des estimations fiables de la mortalité des oiseaux de mer pour plusieurs pêcheries, alors que cette information n'existait pas auparavant. De plus, des essais comparatifs ont menés pour examiner l'efficacité des mesures d'atténuation, à l'opposé des situations où il n'existe pas de mesures d'atténuation. C'est ainsi qu'il est devenu possible de démontrer que les mesures apportent de manière régulière une réduction importante de la capture accessoire des oiseaux de mer, sans pour autant réduire la capture des poissons ciblés. L'ATF s'est également préoccupé de développer des nouvelles technologies pour les pêcheries à la palangre pélagiques, telles SafeLead et les casiers avec hameçons.

1. INTRODUCTION

The Albatross Task Force (ATF) was established in 2006 to meet the urgent need to reduce the mortality of vulnerable seabirds in longline and trawl fisheries. Since 2006 the ATF has expanded and is now active in eight countries in South America and southern Africa including Argentina, Brazil, Chile, Ecuador, Namibia, Peru, South Africa and Uruguay. The Task Force teams are run by in-country BirdLife partners and/or local NGOs with expertise in marine conservation.

Since 2009, the ATF has conducted experimental mitigation research in target longline and trawl fisheries to identify best practice measures for national fleets and, crucially, collaborate with industry and government to implement these measures through a combination of voluntary uptake and the adoption of regulations.

This report provides a brief summary of the results that have been developed through the joint effort of ATF teams and many ACAP Parties and collaborators. It is designed to simply cross-reference to ATF work contained within documents submitted by Parties.

2. PELAGIC LONGLINE FISHERIES

At the SBWG 4 in Guayaquil, Ecuador in 2011, ATF teams from Brazil and Uruguay presented results that demonstrated that a combination of a single bird-scaring line (tori line), night setting and line weighting significantly reduced the attack rate of seabirds on baited hooks in pelagic longline vessels <34 m (Gianuca *et al.* 2011; Domingo *et al.* 2011). One of the remaining questions in 2011 for pelagic longline vessels was whether the modified line weighting had a negative effect on target species catch rates. Since then, the continuation of comparative line weighting trials have demonstrated that pelagic branch lines with lead swivels placed at 2 m from the hook have no effect of target species catch rate compared with leaded swivels placed at 5.5 m (see [document x] tabled by Brazil).

Safe Lead research in the South African domestic pelagic longline fleet has shown that use of Safe Leads rather than weighted swivels can improve safety conditions for crew on board (Sullivan *et al.* 2012). In Uruguay, pelagic longlines set with Safe Leads placed at 1 m from the hook provided further evidence that changing the position of line weighting has no effect on target species catch rate but is effective at reducing seabird mortality (see [document x] tabled by Uruguay). This work contributes to a growing body of evidence that placement and mass of line weighting has no significant effect on target species catch rates (Gianuca *et al.* 2011; Robertson *et al.* 2013).

Modifications to the single tori line design used in Uruguay has successfully reduced entanglements with fishing gear to 7.7% of sets from 48% previously reported (Domingo *et al.* 2011). Additionally a system was developed to move the tori line from port to starboard (or vice versa) during setting operations (see SBWG5 Doc 49 tabled by Jiménez *et al.*).

The Hook Pod is an emerging mitigation measure for pelagic longline fisheries that places weight directly on the hook while simultaneously protecting the barb and point of the hook. When fishing gear reaches target fishing depth, a pressure mechanism releases the baited hook. Trials in South Africa and Brazil have demonstrated that this measure can be incorporated easily into commercial fishery operations.

3. DEMERSAL LONGLINE FISHERIES

Through at-sea monitoring between 2009 and 2012, the ATF has developed a seabird mortality estimate of 22,821 birds killed per year (14,351 - 32,675) for the Namibian demersal longline fishery (see SBWG5 Doc 40 tabled by BirdLife International). Previous work by the ATF in Namibia demonstrated that seabird bycatch in this fishery could be reduced by 98.2% through the use of a paired tori line or by 86.4% with a single tori line (BirdLife International, 2011a). Further work in 2012 through line weighting experiments showed that 5 kg steel weights reduced seabird bycatch by 75% compared with the standard concrete weights currently used in this fishery (see SBWG5 Doc 40 tabled by BirdLife International).

4. DEMERSAL TRAWL FISHERIES

Through at-sea monitoring between 2008 and 2012, the ATF has developed seabird mortality estimates for three demersal trawl fisheries, Argentina, Namibia and Chile, which combined represent an estimated annual mortality level of over 28,000 seabirds.

The mortality rate for the Argentinean industrial trawl fleet (see SBWG5 Doc 36 tabled by Argentina implies a total bycatch estimate of almost 20,000 seabirds annually (based on data collected from 2008-2010 and fishing effort data kindly provided by the government for the corresponding period). This includes; 13,548 (CI: 8,000 – 19,673) black-browed albatross; 1,232 (CI: 0 – 3,077) cape petrels, 1,847 (CI: 612 - 3,689) Northern giant-petrels, and 2,463 (CI: 612 – 4,306) Southern giant-petrels are killed annually in this fishery.

The Namibian wetfish trawl fleet estimate indicates that 8,088 (CI: 0 – 27,487) birds are killed annually in this fishery (based on at-sea data collected from 2009-2011 and fishing effort data kindly provided by the government for the corresponding period), of which 5,101 (62%) are albatrosses (see SBWG5 Doc 41 tabled by BirdLife International).

Based on at-sea data collected from 2011-2012 and fishing effort data kindly provided by the government for the corresponding period the Chilean trawl fleet is estimated to have killed 890 (CI: 438 – 1,418) birds, including 309 (CI: 138 – 506) black-browed albatross (see SBWG5 Doc 39 tabled by BirdLife International).

In each fishery mentioned above bird-scaring lines have been trialled as a mitigation measure against a control treatment of no mitigation. In all three fisheries the use of a bird-scaring line significantly reduced seabird interactions with trawl cables. In Namibia the use of bird-scaring lines eliminated seabird mortality on trawl warp cables. In Chile, seabird mortality was eliminated through the use of bird-scaring lines on trawl warp cables and netsonde cables (netsonde cables are still used in this fishery and cause 39% of observed mortality).

5. ARTISANAL LONGLINE FISHERIES

In 2010, mortality of the Critically Endangered Waved albatross *Phoebastria irrorata* was identified in the demersal artisanal longline fishery that targets hake *Merluccius gayi* based in the port of Santa Rosa, Ecuador (BirdLife International, 2011b). Since then, experimental mitigation trials have continued throughout 2012 to identify the effect of modified weights on the catch rate of target species and seabird bycatch. The modified line weighting (doubling the mass of standard line weighting) has had no significant effect on target species catch (see [document x] tabled by Ecuador). Interestingly, since 2010 no bycatch has been observed in this fishery on either experimental or standard fishing gear. In a joint workshop with the American Bird Conservancy and Equilibrio Azul, representatives of the fishery indicated that artisanal fishing gear has been slowly modified over the past two years, essentially doubling the weight used from 16 g / m to 30 g / m (see [document x] tabled by Ecuador).

In 2012 the ATF began monitoring the demersal longline fleet which also targets hake in northern Peru for interactions with seabirds. To date there has been no record of seabird mortality in this fishery.

6. FUTURE WORK

The ATF will continue to work closely with industry, governments and NGOs to further refine our mitigation research and recommendations for demersal and pelagic longline fleets and trawl fleets in South America and southern Africa. We are also in the process of launching two new initiatives that further strengthen the links between the work of the ATF and the broader fisheries work of the BirdLife Global Seabird Programme (GSP):

- 1) a new project on gillnet fisheries in the Humboldt Current, which is closely linked with the emerging work of BirdLife Global Seabird Programme to identify, develop and test mitigation measures to reduce seabird bycatch in the world's gillnet fisheries, and
- 2) strong links have been made with the distant water fleets of Korea, Japan and Taiwan through the Regional Fishery Management Organisation (RFMO) advocacy programme of the GSP, and ATF instructors are involved in a series of in-country workshops and in some cases this will include at-sea work to demonstrate best practice mitigation.

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BirdLife in-country partners including Aves y Conservación, SAVE Brazil, Aves Uruguay, Aves Argentinas, CODEFF and BirdLife South Africa greatly facilitate and support the work of the ATF. Crucial collaboration with non-BirdLife Partners, such as the Namibian Nature Foundation, Namibian Ministry of Fisheries and Marine Resources, Proyecto Albatroz, and Proyecto Albatros y Petreles – Uruguay provide a solid foundation for the ATF in respective countries.

None of our work would be possible without the collaboration from the fishing industry, national observer programmes and government departments in each of the countries where ATF teams are active. We appreciate their ongoing support.

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