

Albatross Task Force

Team Highlights

April 2017 – March 2018



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Introduction

It is estimated that an albatross dies in a fishery every 5 minutes. This incidental capture, known as bycatch, is largely responsible for the population declines observed in albatross populations worldwide. As a result of these birds' fatal attraction to baited longline hooks and discarded waste from trawl vessels, albatrosses are one of the most threatened groups of birds globally. With 15 of the 22 albatross species threatened with extinction, every individual lost to a hook or trawl cable has a major impact on the future of this family of birds.

This is not a new issue - it was first identified in the late 1980s, and seminal work by scientists and fisheries managers in Antarctica demonstrated that there were viable and effective solutions. However, for many years, little effort was dedicated to demonstrating these emerging solutions to the fishing crews working at sea. In 2005, the Royal Society for the Protection of Birds (RSPB) and BirdLife International launched the Albatross Task Force (ATF), an international team of seabird bycatch mitigation experts tasked with bridging the gap between science and the fishing industry in some of the deadliest fisheries for albatrosses in the world.

The main objective of the ATF remains to *reduce the bycatch of albatross and petrels in targeted fisheries, and ultimately improve the conservation status of threatened seabirds.*

Over the years, we have progressed from demonstrating bycatch mitigation measures on-board vessels, to working with industry and government to introduce regulations to protect seabirds. With regulations now in place in almost all of the ATF fisheries, our focus in 2017-2018 has been on ensuring these regulations are being implemented and monitored, in order to achieve effective reductions in the number of albatrosses being killed.

We have therefore been provisioning fleets with mitigation measures (particularly bird scaring lines), training national observers in seabird ID, bycatch data collection and compliance monitoring, and increasing awareness of regulations among stakeholders. Furthermore, we have continued to test the effectiveness of innovative mitigation measures and adapt the design of existing ones to facilitate their use at sea.

This work would not be possible without the generous support of the RSPB membership, the David and Lucile Packard Foundation, The National Fish and Wildlife Foundation plus many private sponsors and donors. Thank you for your support!

ARGENTINA

Aves Argentinas

Leo Tamini, Nahuel Chavez & Ruben Dellacasa



Target fisheries

ATF-Argentina works with fisheries targeting hake *Merluccius hubsi*, kingclip *Genypterus blacodes*, hoki *Macruronus magallanicus* and southern blue whiting *Micromesistius australis*. These include the industrial trawl fleet of 23 vessels, which is our main focus; the fresh-fish fleet of 81 side-haul trawlers; and the small southern mid-water trawl fleet, composed of just four vessels.

Team progress

Industrial trawl fleet

The team has a long history of demonstrating to industry and government the effectiveness of using bird scaring lines to reduce albatross bycatch in this fleet. The diligent work of the team has finally paid off, with fisheries regulations now requiring the use of bird scaring lines on all industrial trawlers. In 2017-2018 – a year in which adoption of the new regulations was voluntary, before they come into full force in May 2018 – the ATF has been supporting fishermen with the uptake of these mitigation measures, providing bird scaring lines to over half of the fleet and demonstrating their use to crew members. Additionally, we have been delivering an educational outreach programme in schools surrounding key ports to teach the next generation of fishers (around a third of which have relatives active in the fishing industry) about seabird-safe fishing methods.

Fresh-fish fishery

Net entanglements are the main source of bycatch in this fleet: diving seabirds are caught as they feed on fish in the nets, when the nets sit at the surface before hauling. We are still working to find technical solutions to this problem, and to analyse data to quantify how many birds are caught per year in this fishery. In the meantime, we have identified that training fishermen in handling and releasing techniques could save at least a quarter of the birds caught in the nets.

Mid-water trawl fishery

This fleet is small but has a high impact on albatrosses. Most mortality occurs due to collisions with the 'third wire', a cable which sends an electronic signal to indicate when the net is full. In 2017, the fishery was re-certified as sustainable under the Marine Stewardship Council (MSC). Our input into this process has ensured that the fleet is now committed to resolving this bycatch issue and we will continue working with vessels to test effective solutions for doing so.

Next steps

Following a 12-month voluntary uptake period, industrial trawl vessels are now legally required to deploy bird scaring lines. Moving forward, we will thus focus on supporting the implementation of bird-scaring lines across the entire industrial trawl fleet, working with government to ensure there is adequate monitoring and enforcement of the new regulations.

ALBATROSS TASK FORCE: ARGENTINA

226 days spent at sea

1334 students educated (32% with relatives in the fishing industry)

>60% of fleet supplied with bird scaring lines



Image: ATF Instructor Nahuel Chavez hands bird-scaring lines to fleet manager

Leo Tamini, Aves Argentinas

BRAZIL

Projeto Albatroz & SAVE Brasil

Dimas Gianuca, Augusto Silva-Costa & Gabriel Canini Sampaio



Target fishery

The target fishery in Brazil is the pelagic longline fleet, comprised of 58 vessels in the ports of Santos, Itajai and Rio Grande, targeting tunas, swordfish *Xiphias gladius* and sharks.

Team progress

In 2017 the ATF team has been analysing long-term data sets to examine changes in bycatch rates over the past 10 years – this will be wrapped up in 2018. Additionally, we have been working with government authorities to try to improve compliance monitoring in this fleet. Moreover, we have distributed Hookpods to a number of vessels, assessing the crew's willingness to adopt this innovative bycatch mitigation measure, and collecting data on its effectiveness under long-term commercial conditions.

Regulation compliance and engagement with authorities

In Brazil, it has been mandatory for pelagic longline vessels to use bird scaring lines, night setting and line weighting since 2014. However, in the absence of a government observer agency or strong port inspection system, it has proven difficult to enforce compliance. The team is actively working with government to address this issue, and to this end, ran the first-ever course on albatross bycatch mitigation for port inspectors and the national environment and biodiversity institutes. Bolstered by engagement with the Marine Special Unit of the Federal Police through the National Plan of Action-Seabirds, there has been a commitment to step-up the number of port inspections to check compliance with mitigation measures in this fleet.

Hookpod trials

In 2017, an at-sea demonstration was performed on a commercial fishing vessel. Over 38 000 hooks were observed between May and October 2017, with four seabirds caught. In addition to reducing seabird bycatch compared to control treatments, Hookpods were found to have no adverse effect on fishing operations and crew members gave us positive feedback. The 2000 Hookpods used in these trials have been distributed among the fleet for continued use, alongside 426 LED lights to replace the single-use chemical glow sticks that are used to attract target fish species.

Next steps

In 2018, the team continues to work with government to promote the uptake of bycatch mitigation measures across the fleet, and to analyse reductions achieved to date. In addition to port-based compliance work, we'll be examining the potential of remote-based measures to check for compliance with mitigation measures. In 2018, further work with Hookpods will enhance the potential for this mitigation measure to reduce bycatch of seabirds and other taxa, especially turtles, in this fishery. We will be carrying out at-sea Hookpod trials on 4 commercial fishing vessels in the coming year.

ALBATROSS TASK FORCE: BRAZIL

38,417 hooks observed

2000 Hookpods distributed

26 fisheries inspectors trained



Image: Brazilian fisherman setting baited longline hook with Hookpod

Dimas Gianuca, Projeto Albatroz

CHILE

CODEFF

Luis Cabezas & Cristián Suazo



Target Fisheries

The purse seine fishery that ATF-Chile works with is comprised of 450 vessels targeting sardine *Strangomera bentincki* and anchovy *Engraulis ringens*. The smaller demersal trawl fleets consist of six vessels each. The southern mid-water and demersal trawl targets hoki and southern blue whiting whereas the south-central trawl, our original fishery, catches South Pacific hake.

Team progress

Small-scale purse seine fishery

Following the successful development of nets that reduce seabird bycatch by up to 98%, and save fishermen \$3,000, our work was nominated for the Latin American Green Awards 2018. A major achievement this year – considering the large size of this fleet - has been communicating the effectiveness of these nets to stakeholders such as the National Confederation of Artisanal Fishermen of Chile (CONAPACH) and the Agreement on the Conservation of the Albatrosses and Petrels. The work will be published in the peer-reviewed literature this coming year.

South-central demersal trawl

Albatrosses are caught seasonally in this fleet but we have shown this bycatch can be eliminated with the use of bird-scaring lines. The team has therefore focused their efforts on advocating for regulations requiring the compulsory use of mitigation measures. Legislative changes are largely agreed, and will come into force in 2018, representing an important milestone for this fishery.

Southern mid-water trawl

The national observer programme, run by the Fisheries Promotion Institute (IFOP), monitors this fleet and seabird mortality is linked to net entanglements and cable collisions. Since the team first assessed bycatch in this fishery in 2016, it has been challenging to get back on board vessels to properly estimate seabird bycatch levels and test mitigation. To tackle issues in both trawl fleets, observer training and collaboration with ATF-Argentina are our key next steps.

Observer training

One of the most important roles of the ATF in Chile is to provide technical support on bycatch to national observers, particularly because observer bycatch reporting has been inconsistent in the past. In the last year, 76 observers were trained in seabird identification, bycatch data collection and compliance monitoring.

Next steps

In 2018, ATF-Chile will distribute modified nets to more purse seine vessels, covering key areas for threatened pink-footed shearwaters *Ardenna creatopus* and develop a strategy to encourage their wide-scale adoption across the fleet. For trawlers, we aim to see through bycatch regulations, and the team will work with ATF-Argentina to ensure IFOP's national observers are trained in seabird bycatch mitigation and data collection.

ALBATROSS TASK FORCE: CHILE

76 national observers trained

1st ever presentation on seabird bycatch to the National Confederation of Artisanal Fishermen of Chile

Seabird-friendly nets save \$3000 per vessel



Image: Birds attracted to purse seine vessel around Isla Mocha, south-central Chile

Patricio Ortiz, ATF-Chile



NAMIBIA

Namibian Nature Foundation

Clemens Naomab & Samantha Matjila

Target Fisheries

In Namibia we work with the demersal longline fleet (7 vessels) and the demersal trawl fleet (65 vessels), which target Cape hake species *Merluccius capensis* and *Merluccius paradoxus*.

Team progress

Estimating bycatch reduction

The previous estimate of bycatch in our target fleets was a very worrying 30,000 birds/year. We are now analysing data to calculate new annual bycatch estimates, which look set to show a major reduction since the introduction of seabird bycatch mitigation regulations. We aim to publish this work at the end of 2018.

Demersal trawl

Following the introduction of bycatch mitigation measure regulations in November 2015, the ATF team has collected data on seabird bycatch rates and the use of bird scaring lines on-board vessels to assess whether bycatch has been reduced in this fishery. From April 2017 to March 2018 a total of 84 trawls were observed, with bird-scaring lines used in 89% of cases and no seabird bycatch recorded.

Demersal longline

The team observed over 35 000 hooks being hauled, on-board 5 different demersal longline vessels. Bird scaring lines were used on all sets and the only seabird observed killed during these fishing operations was a single white-chinned petrel *Procellaria aequinoctialis*.

Bycatch and compliance monitoring by national observers and inspectors

The Fisheries Observer Agency has been collecting data on seabird bycatch and compliance in Namibia since July 2017 and sharing this with the ATF. At present, around half of the observers are recording seabird bycatch. The ATF will continue to monitor bycatch and compliance levels at-sea while the Ministry of Fisheries transitions into taking over data collection and processing.

Outreach and engagement

The ATF successfully delivered Responsible Fisheries Alliance training on seabird conservation in conjunction with the UN Food and Agriculture Organisation. The team also provided training to 35 national fisheries inspectors and observers on seabird bycatch monitoring.

Next steps

The major focus in the coming years will be to ensure that bycatch reductions achieved under the new regulations are sustainable. To this end, the team aims to train 100% of the national fisheries observers in target fleets in seabird bycatch monitoring and to support relevant authorities in the enforcement of bycatch mitigation measure use and analysis of bycatch data.

ALBATROSS TASK FORCE: NAMIBIA

0 seabirds caught across 84 trawls

1 seabird caught from 35 000 longline hooks

35 fisheries inspectors/observers trained

90% compliance with use of bird scaring lines in trawl fleet



Image: Shy albatross, in search of its next meal

John Paterson, ATF-Namibia

SOUTH AFRICA

BirdLife South Africa

Andrea Angel & Reason Nyengera



Target Fisheries

The team currently work with the pelagic longline fishery for tuna and swordfish (26 domestic and 3 joint-venture vessels), the demersal longline (35 vessels) and trawl (67 vessels) fisheries targeting Cape hakes.

Team progress

Demersal trawl

With ATF collaboration, this fleet has achieved an astounding 99% reduction in albatross bycatch. In 2017, the team continued to develop vessel-specific Bird Mitigation Plans for >80% of this fleet's vessels. In the 101 trips observed this year, 100% compliance was recorded and no seabird bycatch reported, serving as inspiration for ATF teams globally.

Demersal longline

We re-engaged with this fleet in 2017 after it emerged that there has been some seabird bycatch and a lack of mitigation measure compliance. Trips were conducted to assess bycatch and understand the gear configuration, which can change mid-trip, potentially increasing seabird bycatch levels. Although bycatch has been low on observed trips, we suspect mitigation measure compliance is poor on vessels without observers, owing to skipper and crew concerns about bird-scaring line entanglement with longlines. With similar issues in the domestic pelagic fleet (see below), the team tested several bird-scaring line designs adapted for smaller vessels.

Domestic pelagic longline

ATF instructors have monitored seabird bycatch on 50% of the vessels in this fleet and reported a bycatch rate of 0.118 birds/1000 hooks. This is a relatively high rate, owing to varying levels of mitigation measure uptake across the fleet. The team is confident mitigation compliance will increase in 2018-2019 as the new bird-scaring line design (noted above) is utilised by the fleet and permit conditions (requiring 20% observer coverage) are enforced by government.

Joint-venture pelagic longline

Seabird bycatch remains relatively high in this small fleet (on average 0.06 birds/1000 hooks). However, with 100% observer coverage, permit condition breaches are easily detected and licenses revoked from vessels with elevated levels of seabird bycatch. One such breach was recorded in the past year, and the team was actively involved with the fishing company in developing plans for preventative measures in future years.

Next steps

We will continue to develop vessel-specific Bird Mitigation Plans to maintain negligible seabird bycatch levels in the trawl fleet. Additionally, the team will be collaborating with longline fisheries to determine if bycatch levels are truly problematic in the demersal fleet, and to ensure uptake of modified bird scaring line designs across both the pelagic and demersal fisheries.

ALBATROSS TASK FORCE: SOUTH AFRICA

294 000 hooks observed

0 birds caught in the demersal trawl fishery

100% compliance with bird scaring lines in the demersal trawl fishery



Image: Sunset view from a South African trawl vessel

Heinz Ortmann, ATF-South Africa

CONCLUSIONS

The Albatross Task Force continues to achieve significant results for albatrosses through our small but dedicated teams of expert instructors, who are operating in a variety of bycatch hotspots globally. From our original ten target fisheries, we have been able to secure seabird bycatch regulations in 8, with the prospect of this becoming 9 in the next year. As such, our ATF teams are now focusing on monitoring compliance levels and recording the effect of these legislative changes for seabirds at-sea. We are working alongside national observer agencies to achieve this and hope to report more details on the impact of new fisheries permit conditions and regulations shortly.

Words on paper to action at sea

In Namibia, we have been monitoring the use of seabird bycatch mitigation measures since regulations came into force in 2015. Preliminary analysis of observer data suggests remarkable seabird bycatch reductions following the implementation of these regulations. We aim to publish these results in the next year and, moving forward, our focus in Namibia will be to support the authorities to set up the systems and training necessary to ensure the reductions are maintained for years to come.

Lessons learned from Namibia and South Africa will in turn help inform ATF teams undergoing similar processes in other parts of the world. In Argentina for instance, the persistence of the team has resulted in bird-scaring lines becoming compulsory on industrial trawl vessels after a 12-month voluntary uptake period (May 2017-May 2018). Although the team is confident that compliance levels will remain high in this fishery, our challenge now is to continue monitoring the effective implementation of these new laws and assess what impact they are having on seabird bycatch.

In Brazil, we face a different challenge, with well-established bycatch regulations but no observer coverage and low levels of enforcement. We are responding to this by developing stronger links with the enforcement agencies, and exploring alternative ways to monitor compliance with regulations remotely via Vessel Monitoring Systems.

New fisheries

When the ATF was formed, the initial focus was on nine large scale industrial fleets, which were having huge impacts on seabirds per vessel. As the ATF has established itself in each country, a number of other priority fleets have emerged, including two small but impactful trawl fisheries in Argentina and Chile.

Some of our greatest success this year has come from a fishery that we only started to engage with latterly – and for which there was no established bycatch reduction measure. The innovative work of our Chilean team has helped to identify some hugely successful but simple modifications to purse seine nets, which not only bring about huge reductions (98%) in the bycatch of threatened shearwaters, but also save fishermen money. We received further funding for this work this year from the National Fish and Wildlife Foundation, which will enable us to kit out more vessels with this gear and spread the word among this

large and important fleet. It has been particularly encouraging for the team to have their efforts recognised internationally in the Latin American Green Awards 2018.

We are also working to innovate with better-established seabird-saving measures like bird scaring lines. Our team have identified that lower compliance with this measure on small vessels in South African longline fleets may be the result of technical and design issues with the existing lines. By working in close collaboration with fishermen, we have been able to design a line that is both effective in seabird bycatch reduction and more user-friendly for the crew. The key now is to ensure adoption by the fleets.

The expertise and relationships developed by the ATF over the years puts us in a unique position to continue innovating with mitigation measures and provide feedback to relevant parties, as demonstrated by our work with Hookpods. Engaging in these types of activities is a crucial component of the work we do, as the results of our trials may have strong implications for the development of mitigation measures in fisheries in other parts of the world.

The next steps for the ATF

Over the next two years to 2020, our major focus is on implementation of the regulations that we've fought so hard to establish in our target fisheries. How this looks varies from country-to-country, according to the unique set of circumstances we face in each place – but will include continuation of observer training, port workshops with fishers, providing mitigation measures to fleets and, increasingly, supporting enforcement agencies and ensuring effective data collection systems and national capacity to monitor and analyse seabird bycatch data. This array of activities reflects the expanded role, substantial expertise and proactive attitudes of the conservationists that make up the ATF teams.



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