

Sea Change

BirdLife International Marine Programme newsletter



Arctic tern becomes 100th tracked species

- Hook pods offer hope for seabirds
- Action for black petrels in New Zealand
- Danger zones for threatened shearwaters found

John Paterson



Twin bird-scaring lines keep birds away from the danger zone behind a Namibian trawler

Task Force pushes on in Namibia

Over the past few years, studies by the Albatross Task Force (ATF) in Namibia have shown that trawl and demersal longline fleets targeting hake are responsible for the deaths of around 30,000 birds each year. The majority of these birds are white-chinned petrels.

Fortunately, mitigation measures are proven to be highly successful, reducing the bycatch rate by over 85%. As a result, the ATF have been coordinating the voluntary uptake of mitigation measures, encouraging trawl fisheries to use bird-scaring lines and longline fisheries to use

solid steel weights combined with paired bird-scaring lines.

We hope that this work will encourage fishermen to take up mitigation measures across the entire fleet, saving the lives of many seabirds.

ATF throws its weight behind new regulations in Brazil

Following the introduction of new fishery regulations in Brazil, the ATF has been working to implement the measures across the fleet.

While some vessels are happy to concur, others have questioned the new regulations – which require the use of bird-scaring lines and line weighting positioned no more than two metres from the hook – preferring to maintain the use of weights placed five metres or more from the hook.

To date, there is no evidence that altering line weighting negatively affects the number of fish caught, and the ATF will continue to conduct trips to demonstrate this to industry workers.

The second phase of this work, co-financed through the Agreement on the Conservation of Albatross and Petrels (ACAP) will introduce Sliding Leads (formerly known as Safe Leads): line weights that show how seabird-friendly measures can also improve crew safety.

High hook pod success rate offers hope for seabirds

Recent research results indicate a fantastic success rate for hook pods, offering hope that an end to needless seabird deaths could be on the horizon for pelagic longline fisheries.

A range of different mitigation methods exist to help reduce seabird bycatch across pelagic longline fisheries, and yet these methods aren't being adopted as quickly or as widely as we might like. Why? Because they are too complicated!

To comply with current best practice, a pelagic longline fishing captain should deploy a bird-scaring line, use line weighting within two metres of the hook and set the line under darkness. Many captains are unwilling to use one or more of these methods, and that's where the hook pod comes in.

Originally conceived by the BirdLife International Marine Programme, in collaboration with Fishtek (a British engineering company), this little gadget offers a single solution to seabird bycatch in pelagic longline fisheries.

The device encapsulates the hook and barb of baited hooks within a chamber during setting operations. This means that the hook is protected from foraging seabirds.

Once the pod reaches a depth of 10 m, beyond the dive depth of most seabirds, a pressure release mechanism is triggered and the hook is released.

The hook pod is currently on its eighth prototype, following a series of subtle modifications that have been incorporated as a result of findings from at-sea testing in Australia, Brazil, Uruguay and South Africa, many of which have been reported in previous editions of *Sea Change*.

The most recent round of testing was performed by the ATF in Brazil, in collaboration with Projecto Albatroz.



Dirnas Gianuca

A loaded hook pod

Over 14,900 hooks were deployed in an area of high seabird abundance where high seabird bycatch had been reported in the past. Half of the hooks were set with hook pods and the other half with standard fishing gear.

On the lines set with standard gear, 21 birds were caught (a catch rate of 2.82 birds per 1,000 hooks) compared to just one bird on lines set with hook pods (a catch rate of 0.13 birds per 1,000 hooks). Importantly, the bird caught on a line with a hook pod was on a hook that was not correctly loaded into the chamber during setting, and therefore not protected. These recent results from Brazil, along with other at-sea trials, give us confidence that we are getting very close to a solution that will offer pelagic longline fisheries a simple, cost-effective, one-stop mitigation option.

We have further trials planned for Brazil, South Africa and New Zealand this year and we look forward to reporting results in 2015.

Want to know more?
Please contact Ben Sullivan at ben.sullivan@rspb.org.uk

Danger zone for threatened shearwaters discovered

Luis Cabezas



103 shearwaters have been confirmed dead so far

Through an initiative funded by the National Fish and Wildlife Foundation, the ATF in Ecuador, Peru and Chile have been monitoring small-scale fisheries throughout the Humboldt Current.

After a year of work, results indicate that seabirds interact with fisheries at relatively low levels in Ecuador and northern Peru. However, in Chile, the ATF team discovered that during the breeding season there is a high level of interaction between shearwaters and the purse-seine fishery, since both the birds and fishermen are targeting sardines and anchovies.

On one occasion, 21 birds were observed to be caught in a single set, and 103 have been confirmed dead so far. Eighty-one per cent of these were threatened pink-footed shearwaters – the rest were sooty shearwaters.

This is clearly a high risk fishery for shearwaters, so in the second year of the study the ATF will explore solutions to reduce bycatch by purse-seine vessels.

Want to know more?
Please contact Oli Yates at oli.yates@gmail.com



Ben Lascelles

Hook pods could be the key to improving the fortunes of many seabird species, such as this wandering albatross

Japan and Korea lead with lead weights

The reluctance of fishermen to add weights to their tuna longlines has been a central problem in BirdLife's attempts to reduce seabird bycatch through pelagic fishing. But two pioneering weighting systems may provide a solution.

Adding weight to tuna longlines is one of three recommended measures for reducing seabird bycatch in pelagic fishing, alongside night setting and the use of bird-scaring lines. By July this year, all tuna vessels fishing 25° south of the equator must use two of these three measures. Night setting is not practical in many circumstances, which leaves no option but to add weight to lines to comply with the new regulation.

The problem is that adding weight to lines is a significant change to the fishing gear: an inconvenience that

means many fishermen are unwilling to adopt this measure. There are also real concerns about safety. When a line is hauled in, a very large fish or shark can place it under enormous tension; if the line snaps, it will recoil towards the vessel. With a lead weight attached, this can occur at speeds sufficient to cause permanent injury or even death.

With this in mind, BirdLife and Fishtek have designed a weighting system that overcomes this risk. The Lumo Lead® is clamped onto the line with enough pressure so that it

stays put, but it is designed to slide harmlessly off the end if the line breaks suddenly under tension.

Simultaneously, Japan has been working on a different weighting system designed by a Japanese tuna longline skipper. The Yamazaki double-weight system can reduce seabird bycatch substantially, whilst also addressing crew safety concerns.

In 2013, the fisheries ministry from the Republic of Korea assisted BirdLife in testing Lumo Leads onboard a Korean tuna longliner. This year, Korean officials have gone a step further by recommending to the Korean southern bluefin tuna fleet that they adopt this measure on a trial basis.

Around 40,000 Lumo Leads have been shipped to Korea, along with training materials to ensure that crew know how to fit the leads to the lines. Dr Ross Wanless, BirdLife International Marine Programme Africa Coordinator, is assisting with the training of scientific observers who will be onboard the vessels during the trials.

In Japan, officials have indicated that their fleet will begin using the Yamazaki double-weight system by the middle of this year.

These two major developments show that Japan and Korea are making fantastic progress in ensuring that their high seas fleets are minimising the bycatch of albatrosses and other seabirds.

Want to know more?
Please contact Ross Wanless at ross.wanless@birdlife.org.za



Lumo Leads in use on a Korean fishing vessel

Major breakthroughs with Far East high seas fisheries

In November 2013, the BirdLife International Marine Programme joined up with the Taiwan Fisheries Agency and the Chinese Wild Bird Federation (BirdLife Partner Taiwan) to hold a two-day workshop with Taiwanese tuna longline industry representatives. The aim of the workshop was to help Taiwan to implement seabird bycatch mitigation measures, which are required in almost all areas overlapping with albatrosses.

Sixty participants, including representatives of the Taiwan Tuna Association and experts from BirdLife, Japan and the USA, shared knowledge and discussed issues and concerns around the implementation of mitigation measures.

A number of solid outcomes were agreed, including the development of joint BirdLife Taiwan educational

materials for the Taiwanese industry and input from BirdLife into Taiwan's observer training.

A programme of port-based outreach to captains and crew will also get underway, thanks to collaboration between BirdLife and the Taiwan Fisheries Agency. Yet more positive news from high seas fishing fleets in the Far East!



Workshop participants visiting a Taiwanese tuna vessel

Our thanks go to the ISSF, the David and Lucile Packard Foundation and the Taiwan Overseas Development Fisheries Council whose support made this workshop possible.

Want to know more?
Please contact Cleo Small at cleo.small@rspb.org.uk

Untangling gillnet bycatch

Gillnets are incredibly common fishing gear. Used the world over, they are a relatively cheap means of catching a large variety of fish species. However, as reported in *Sea Change* last year, gillnets also result in substantial seabird bycatch – an estimated 400,000 birds die through entanglement with this gear every year.

Unlike longline and trawl fisheries, there are currently no mitigation measures to reduce bycatch in these nets, but the BirdLife International Marine Programme is on the case.

Together with the American Bird Conservancy, we are organising an international workshop next year that will develop projects to identify effective mitigation measures for birds, turtles, cetaceans and other species that are frequently caught in gillnets.

We have also commissioned scientific reviews to better understand the factors that influence bycatch, which we hope will help us to design effective mitigation measures.

Perhaps most excitingly, we have begun testing specially modified nets with Lithuanian fishermen in the Baltic Sea, a hot spot for gillnet bycatch, where an estimated 76,000 birds are caught each year. These nets are based on designs devised and tested by Ed Melvin of Washington Sea Grant in the USA's Puget Sound salmon fishery. High-visibility white mesh is attached to the top section of a normal net to deter birds from diving in, but allow fish to continue to be caught in the lower section.

This work is in its infancy, but we hope to continue this pilot and ultimately develop a solution that cuts seabird deaths whilst maintaining fish catches.

In the meantime, we intend to form strong partnerships and increase global recognition of this issue, which should lead to more action.



Steller's eider entangled in a gillnet.

Action for black petrels in New Zealand

In New Zealand, black petrels are the species most at risk from commercial fishing operations. To address this, the Ministry of Primary Industries (MPI) in New Zealand is convening an advisory group of scientists and seabird advocates, including BirdLife, to draw up a special action plan.

Agreed activities this breeding season will include: increasing observer coverage in the snapper longline fishery, deploying two liaison officers to work directly with fishermen in an Albatross Task Force style, and developing vessel-specific management plans on bycatch, including for charter boat operators.

Recreational bycatch is also a potentially significant and unquantified source of mortality, not only for black petrels, but flesh-footed shearwaters too. Like black petrels, these shearwaters are highly competitive foragers around

recreational fishing boats, especially when feeding chicks.

Karen Baird, Pacific Coordinator of the BirdLife International Marine Programme, worked with Southern Seabird Solutions and Auckland Council to hold a workshop for frontline Department of Conservation (DOC), Fishery Officer and Council park staff on this issue. As a result of this workshop, Auckland Council will be funding an information leaflet for recreational fishers.

Finally, a new collaborative group is being established to focus on the

issue of bycatch in the bottom longline fishery around northeast New Zealand.

It consists of representatives from all the fishing companies involved, NGOs (including Forest & Bird, the BirdLife partner in New Zealand), key government departments and Hauraki Gulf Forum. This group is developing a list of actions to reduce bycatch in this risky fishery, so watch this space for updates!

Want to know more?

Please contact Karen Baird at k.baird@forestandbird.org.nz



Like flesh-footed shearwaters, black petrels (pictured above) are potentially at risk from recreational fisheries in New Zealand



Chris Knights (rsph-images.com)

Arctic terns undertake the longest migration recorded for any animal

Arctic tern becomes 100th tracked seabird species

The Arctic tern, which undertakes the longest recorded migration of any animal, became the 100th species recorded on the Tracking Ocean Wanderers database.

The BirdLife-managed Tracking Ocean Wanderers database is used by a wide range of seabird researchers to store their data and make it available for conservation.

Over the last two years, BirdLife have actively contacted researchers in a bid to encourage data submission ahead of the Convention on Biological

Diversity and other important marine conservation meetings.

During this time, we passed the 100 species mark – one third of all seabirds – with an Arctic tern dataset from Carsten Egevang, which shows an incredible 80,000 km annual journey between the poles for some individuals.

An overhaul of the database and website is currently underway, and we hope to have the new system up and running by autumn 2014.

Want to know more?

Please contact Maria Dias at maria.dias@birdlife.org

Over 600 new marine sites earmarked for protection

Tracking data contributed by over 150 researchers has helped us to achieve Marine Important Bird Area (MIBA) status for over 600 new sites.

The 2010 Conference of Parties to the Convention on Biological Diversity (CBD COP) called for a set of regional workshops to identify Ecologically or Biologically Significant Marine Areas (EBSAs) in need of protection. This marked a crucial step towards protecting marine habitats and biodiversity, particularly in areas beyond national jurisdiction. Since 2011, ten workshops have been held and, with the exception of just a few areas, the first global EBSA assessment is almost complete.

These workshops have broken new ground by bringing together fisheries management bodies, government-nominated experts and the wider research community to discuss marine biodiversity conservation and agree on the key areas that are in need of enhanced management. The tracking data generously contributed by 150 researchers for over 100 species of seabird have been a critical part of data discussions at all workshops. With this justification we have succeeded in

getting over 600 MIBAs recognised within the EBSAs described to date. A critical next step will be to ensure the sites are approved by the next CBD COP in Korea in October 2014, and then effectively communicated to marine stakeholders to improve management within these areas.

Want to know more?

Please contact Ben Lascelles at ben.lascelles@birdlife.org

Upcoming events



Ben Lascelles

Wandering albatrosses in Ulladulla, Australia

June

17–20 Spatial Ecology and Conservation Conference, University of Birmingham, England

23–28 Convention on Biological Diversity SBSTTA 18, Montreal, Canada

August

14–18 International Marine Conservation Congress, Glasgow, Scotland

September

8–19 ACAP Advisory Committee and Working Groups, Punta del Este, Uruguay

22–26 Fifth Bio-logging Conference, Strasbourg, France

29–17 Oct Convention on Biological Diversity COP12, Pyeongchang, South Korea

October

11–14 Third World Conference on Marine Biodiversity, Qingdao, China

November

2–9 Convention on the Conservation of Migratory Species of Wild Animals COP, Quito, Ecuador

12–19 IUCN World Parks Congress, Sydney, Australia

December

2–4 Arctic Biodiversity Congress, Trondheim, Norway

End notes

The BirdLife International Marine Programme is co-ordinated, on behalf of the BirdLife International Partnership, by the RSPB (BirdLife Partner in the UK).

For more information and to suggest potential articles, please contact Rory Crawford (BirdLife International Marine Programme Senior Policy Officer) at rory.crawford@rspb.org.uk



The RSPB is the country's largest nature conservation charity, inspiring everyone to give nature a home.



The RSPB is a member of Birdlife International, a partnership of conservation organisations working to give nature a home around the world.

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