

 <p data-bbox="231 571 470 609">Agreement on the Conservation of Albatrosses and Petrels</p>	<p data-bbox="564 277 1398 365">Twelfth Meeting of the Seabird Bycatch Working Group</p> <p data-bbox="927 383 1398 421"><i>Lima, Peru, 5 – 7 August 2024</i></p> <p data-bbox="564 499 1337 696">Updates on the Implementation of the Agreement on the Conservation of Albatrosses and Petrels through Brazil's National Plan of Action</p> <p data-bbox="539 723 1366 808"><i>Andrei L Roos, Tatiana Neves, Patricia P. Serafini, Caio Marques, Gabriel Canani</i></p>
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SUMMARY

In Brazil, National Plans of Action for the Conservation of Endangered Species (PANs) are critical management and public policy tools established through specific legislation. Coordinated by the Chico Mendes Institute for Biodiversity Conservation (ICMbio), these plans identify and prioritize actions to address threats to species and their habitats. The development and execution of PANs are participatory, involving various stakeholders, including government agencies, NGOs, civil society, the private sector, experts, and individuals vital to conservation. Regular monitoring and evaluations are conducted to ensure the plans are meeting their objectives, with adjustments made as necessary. The National Plan of Action for the Conservation of Albatrosses and Petrels (PLANACAP) is a proactive government measure addressing the main threats faced by these oceanic birds in Brazil, particularly from industrial fisheries. Initiated in 2006, PLANACAP has undergone several planning cycles, each refining its strategies and expanding its scope. In the past decades PLANACAP has made significant strides in enforcing legislation, educating stakeholders, and fostering research. Despite progress, full compliance with mitigation measures remains a challenge, and the suspension of Brazil's National Program for Onboard Observers has hindered data collection and assessment. Looking forward, the fourth cycle of PLANACAP aims to further reduce the mortality of these birds by focusing on four specific objectives: understanding and mitigating fishing interactions, monitoring the impacts of offshore projects, addressing issues related to pathogens, pollution, and climate change, and enhancing public policy and environmental education. A total of 41 strategic actions have been outlined to tackle these threats. This comprehensive approach underscores Brazil's commitment to the conservation of its endangered species and the ongoing efforts to protect albatrosses and petrels from the myriad of threats they face in national waters.

1. INTRODUCTION

1.1 Action Plans in Brazil

Currently in Brazil, National Plans of Action for the Conservation of Endangered Species (PANs) are recognized by the government as management and public policy instruments and are established through specific legislation. They are coordinated by the government and drawn up jointly with society, identifying and guiding priority actions to combat the threats to species and their natural environments.

Since its establishment in 2007 under Law No. 11,516, the Chico Mendes Institute for Biodiversity Conservation (ICMBio) has been tasked with safeguarding threatened species in Brazil. ICMBio oversees the creation, approval, and execution of National Plans of Action aimed at conserving and managing endangered fauna within the country. This process is coordinated through the Institute's National Research and Conservation Centres (CNPC), which ensure the effective development and implementation of these plans.

The National Plan of Action for the Conservation of Endangered Species - PAN is built in a participatory manner and is used to plan and prioritize actions for the conservation of species and natural environments, with an established objective over a defined time horizon. Since 2012, ICMBio has established a methodology to regulate the procedures for drafting, approving, publishing, implementing, monitoring, evaluating and reviewing PANs (IN ICMBio nº 21/2018).

The PANs are collaboratively implemented by ICMBio in partnership with a diverse array of stakeholders. These include municipal, state, and federal government agencies, non-governmental organizations, organized civil society, the private sector, experts, and individuals crucial to conservation efforts. Each participant contributes according to their specific roles and areas of expertise. These stakeholders may participate as invited observers or take part in the technical advisory group (GAT), through coordination invitation. PANs are implemented through 5-year cycles, in which objectives, actions and progress indicators are defined. The implementation of actions and their follow-up are assessed through annual monitoring meetings coordinated and organized by ICMBio and involve the participation of the GAT set up for each plan. Also, Evaluation Workshops with the GAT take place twice during a PAN cycle: halfway through and at the end. The aim of these evaluations is to check that the implementation of the PAN is leading to the planned objectives, with every action being evaluated and categorised as “Concluded”, “Started but not concluded in planned time” or “Not started or not concluded”. This categorization guides the next cycle, which takes them into account to propose new actions or to exclude the ones taken as unfeasible.

1.2 PLANACAP's history

Since 2006, the National Plan of Action for the Conservation of Albatrosses and Petrels (PLANACAP) has been a very proactive national management instrument in the effort to overcome local threats to Procellariiformes that occur in Brazil, notably by concentrating efforts on mitigating the incidental capture in industrial fisheries, but also including actions towards reducing knowledge gaps, implementing national and international public policies and to raise public awareness about the main threats to the group.

The first cycle of the National Plan of Action for the Conservation of Albatrosses and Petrels - PLANACAP, which ran from 2006 to 2011, was the result of joint work between the Brazilian Institute of Environment and Renewable Natural Resources (IBAMA) and the NGO Projeto Albatroz. The plan covered 13 taxa that interacted with fisheries, as well as two petrels identified as breeding in Brazil. In total, 32 actions were planned, of which 4 were considered completed and other 5 were considered ongoing in the planned time, composing an approximate success rate of 28% of proposed actions.

PLANACAP's second planning cycle was drawn up in 2012 for the 2012-2017 period and included 69 actions related to the general objective of contributing to the long-term conservation of albatrosses and petrels' populations. The list of benefited species was revised in 2012, and included 15 taxa, 10 of which were considered endangered on the Brazilian National List (MMA Ordinance 444/2014): four in the CR (Critically Endangered) category: *Diomedea dabbenena* (Tristan Albatross), *Diomedea exulans* (Wandering Albatross), *Pterodroma arminjoniana* (Trindade Petrel) and *Puffinus lherminieri* (Audubon's Shearwater); three in the EN (Endangered) category: *Diomedea sanfordi* (Northern Royal Albatross), *Thalassarche chlororhynchos* (Atlantic Yellow-nosed Albatross), *Pterodroma incerta* (Atlantic Petrel); three in the VU (Vulnerable) category: *Diomedea epomophora* (Southern Royal Albatross), *Procellaria aequinoctialis* (White-chinned Petrel), *Procellaria conspicillata* (Spectacled Petrel); as well as 5 (five) other taxa categorised as NT, LC and NA: *Thalassarche cauta* (Shy albatross), *Thalassarche melanophris* (Black-browed Albatross); *Calonectris borealis* (Cory's Shearwater), *Calonectris edwardsii* (Cape Verde Shearwater) and *Puffinus gravis* (Great Shearwater).

In the final monitoring of 2017 (the fifth annual monitoring), PLANACAP's second planning cycle presented 51% of its actions completed, 18% started and not completed within the planned period, 31% not started within the planned period. These last two figures are attributed in part to the complexity of dialogue and raising the awareness of the industrial fishing sector to the conservation of marine biodiversity, the government's demobilization of fisheries planning (the extinction of the Ministry of Fisheries - MPA, among others) and the fact that investment had been reduced in recent years for conservation projects, but also because it had an ambitious objective, a national scope and because it involved actions that required a long time to achieve effective results.

The third cycle of the National Plan of Action for the Conservation of Albatrosses and Petrels (PLANACAP) was approved by ICMBio Ordinance No. 378 of 24 April 2018, planned to act between 2018 and 2023, and included seven nationally endangered taxa, with the general objective of "Reducing the mortality of albatrosses and petrels caused by anthropogenic actions, especially by incidental capture in fisheries". In this third cycle, only the migratory oceanic taxa whose incidental capture in fisheries is the main threat were included, while the other threatened seabird species began to be covered by the National Plan of Action for the Conservation of Seabirds, drawn up in 2017. The list of species included 13 taxa, seven of which are considered endangered on the National List (MMA Ordinance No. 444/2014): two in the CR (Critically Endangered) category: *Diomedea dabbenena* (Tristan Albatross), *Diomedea exulans* (Wandering Albatross); two in the EN (Endangered) category: *Diomedea sanfordi* (Northern Royal Albatross), *Thalassarche chlororhynchos* (Atlantic Yellow-nosed Albatross); three in the VU (Vulnerable) category: *Diomedea epomophora* (Southern Royal Albatross), *Procellaria aequinoctialis* (White-chinned Petrel), *Procellaria conspicillata* (Spectacled Petrel).

In addition, five other taxa categorized as NT, LC and NA that were included with justification (they are migratory birds included in the ACAP/CMS): *Thalassarche steadi* (White-capped Albatross), *Thalassarche melanophris* (Black-browed Albatross), *Puffinus gravis* (Great Shearwater), *Macronectes giganteus* (Southern Giant Petrel) and *Macronectes halli* (Northern Giant Petrel). The importance of PLANACAP's list of target species covering only Procellariiformes (albatrosses and great petrels), with a focus on threats that are more oceanic than coastal and insular, is also justified by the international commitments made by Brazil to the United Nations, through the International Agreement for the Conservation of Albatrosses and Petrels - ACAP/UNEP. In the final evaluation carried out in 2023, of the 44 actions that were established, the Final Monitoring management panel showed that 59% of the actions were completed, 23% of actions were started but not completed within the planned period and 18% of actions were not started.

1.3 Results of the 3rd PLANACAP Cycle:

The main results obtained by PLANACAP's specific objectives were:

1.3.1 Specific objective 1: Encourage compliance with current legislation to mitigate the incidental capture of albatrosses and petrels.

- a. Enforcement actions targeting the longline fleet were carried out annually and gradually expanded. Operation Albatross (2019, 2020 and 2021) and Operation Makaira (2023) to inspect the longline fleet.
- b. Training sessions for fishing skippers and fishermen; 34 events organised by SINDIPI in the Port of Itajaí/SC.
- c. Development of a Standard Operating Plan for inspection based on VMS data from the National Programme for Tracking Fishing Vessels by Satellite (PREPs), with identification of night setting.
- d. Pilot project for electronic monitoring of mitigating measures compliance at commercial fishing sets, conducted by ICMBio in a Large Oceanic Protected Areas. Although the equipment did not prove to be satisfactory for the purposes of the first tests, progress was made in the effectiveness of the monitoring method in the following phases.
- e. Creation of a standardised production chain for torilines and other mitigation measures. 38 torilines were produced and commercialised between June and August 2022 and 12 throughout 2023. There is constant monitoring of the torilines produced to check that the material is within specifications.

Even though there was no direct research aiming to assess the actions implementation progress, the results above indicate that there was an improvement towards the compliance with incidental captures mitigation measures use regulations, with engagement actions being carried out in the main longline fisheries landing ports, participation into the training courses with skippers and fishermen and law enforcement through port inspections. Even so, there is still a high resistance from the fishing sector to fully use the mitigation measures. This may be explained by the lack of a permanent on-board monitoring, shortage of public policies

resources and the low inspection capacity due to reduced staff in the main Brazilian environmental agencies (ICMBio and IBAMA). Given that there was no fishing monitoring program during the cycle, data is scarce, and these results may not influence the overall goal to reduce incidental captures.

1.3.2 Specific objective 2: Develop research to diagnose and mitigate threats to the conservation of albatrosses and petrels.

- a. Development and publication of a protocol for analysing plastic and microplastics in albatrosses and petrels in Brazil
<https://doi.org/10.37002/biodiversidadebrasileira.v11i3.1829>;
- b. Development and publication of protocols for albatrosses and petrels rehabilitation and release;
- c. Articles on prevalence and knowledge gaps about the impact of pollution on albatrosses and petrels: DOI: <https://doi.org/10.37002/biodiversidadebrasileira.v12i1.1855> ; <https://doi.org/10.1016/j.envpol.2022.120615>;
- d. Diverse funding and development of national projects: Call for proposals approved via GEF Mar MMA, two projects approved as Small Grants ACAP (Hook Pod and plastic), and Secondment (Caio Marques and Alice Pereira), Albatross Task Force instructors until 2021, Petrobras SocioAmbiental funding for Projeto Albatroz, GEF Species (unsuccessful call for proposals due to the pandemic), Small Grant (pathogens) + AAZV (Plastics), Gabriel Canani PhD project and participation in the PRINT-CAPEs internationalisation program in collaboration with Birdlife International and British Antarctic Survey, and Patrícia Serafini PhD project, Beach Monitoring in Rio de Janeiro State (PMP Campos Basin - Projeto Albatroz and Ambipar execution).

Although the number of publications exceeded the target set, due to the indicator independence of external factors and due to the dedication and commitment of the group, the National Program for Onboard Observers (PROBORDO) has been officially suspended in our country since 2012. That scenario makes data very scarce, or very local, and thus creating difficulties to identify and robustly assess seabird bycatch in relevant fisheries and to broadly monitor the implementation of effective bycatch mitigation strategies.

1.3.3 Specific objective 3: Develop and implement national and international public policies for the conservation of albatrosses and petrels.

Progress was made in implementing public policies (e.g.: Albatrosses and Petrels Monitoring Program - PMAPet, increased compliance monitoring, interface with ACAP, etc.). The action was focused on meeting the indicators for this objective, which included funding acquisition, oil and gas activities impacts monitoring expansion, seabird bycatch monitoring protocols shared between institutions, among others. Of a total of eight actions proposed, six were considered completed. Furthermore, there was a discussion about what was considered current public policies, in addition to PLANACAP, inspection, etc. Current public policies aimed at the pelagic longline fishery have not yet been fully implemented, which makes it difficult to assess whether there is a need for new public policies focused on the conservation of albatrosses and petrels.

Additionally, some fishing fleets, like those using demersal longline gears or small-scale hook-and-line fisheries, operate without any specific public policy guidance or regulation. Although there are recommendations for creating such policies, their actual implementation often falls outside the PAN implementation group's control.

1.3.4 Specific objective 4: Develop and implement environmental education, communication, training and education actions aimed at the conservation of albatrosses and petrels.

- a. Various educational and environmental awareness actions carried out with civil society. More than 78 million views of Projeto Albatroz's social media posts (Facebook and Instagram) between 2018 and 2023 (up to April) with a reach of 511,166 people.
- b. Establishment of the National Albatrosses and Petrels Sample Bank - BAAP, currently involving 19 institutions and more than 10,700 samples.

This specific objective was the one with the best results, with eight of the nine actions being considered completed, and the remaining one considered started but not concluded in the planned time. These results benefit from the fact that all the actions are within the group's governance and in a position to be carried out and completed. We were able to exceed the reach of the actions to communicate and publicize albatrosses and petrels, thanks to various long-term programmes and sponsorships for carrying out the actions. The group suggests replicating the fishermen's training courses (PEP and POP) in ports other than Itajaí-SC. There was an unfulfilled demand to produce a lecture class (Educa+) and virtual PEP POP classes (to be available for courses throughout the country) on the AVA (Virtual Learning Environment) platform.

There is sponsorship (PETROBRAS) for the Albatross Project's environmental education programme, which allows for the hiring of a team to promote the project, as well as boosting posts and partnering with other institutions on posts (ICMBio, R3, IBAMA, among others). These figures only consider social media, and not the initiatives of other institutions, so it's possibly an underestimate.

The partnership with the Albatroz Institute (Projeto Albatroz) is essential to the fulfilment of these activities, and Petrobras' financial support is fundamental to the successful implementation of the actions related to it.

1.3 4th cycle planning (2024-2029)

The planning workshop for the 4th cycle of the PAN Albatrosses and Petrels, was held from 6th to 10th May 2024, in the city of Florianópolis, state of Santa Catarina. The workshop was attended by researchers, technicians, specialists, civil society and public institutions.

Therefore, understanding that the general objective presented still contemplates the positive change expected to occur in five years, the text of the General Objective of the 4th cycle of PLANACAP was defined as: Reduce the mortality of albatrosses and petrels caused by anthropogenic actions, especially by incidental capture in fisheries.

In the end, four specific objectives were outlined for the 4th PLANACAP cycle:

Specific Objective 1: Understanding the interactions and mitigate incidental capture and mortality of albatrosses and petrels in the different national fisheries, with a focus on the

industrial pelagic longline and small-scale hook and line fisheries in the southeast and south Brazilian jurisdictional waters.

Specific Objective 2: Generate knowledge, monitoring and reducing the impacts of offshore projects (wind power, oil and natural gas production, seismic and mining surveys);

Specific Objective 3: Generate knowledge, monitoring and reducing impacts related to pathogens, pollution and climate change.

Specific Objective 4: Development and implementation of public policy, environmental education and communication actions.

A total of 41 priority and strategic actions were drawn up with a view to reducing or eliminating the threats associated with each Specific Objective.