

Country	Region	Locality	Project name	Project number	Fishing gear	Duration	Coordinator and contacts	Summary	Objectives	Results	Website	Notes
Morocco, Tunisia and Turkey	Mediterranean Basin: Aegean Sea, Sicily Channel, Central Aegean & Levantine Basin	NA	Understanding Mediterranean multi-taxa 'bycatch' of vulnerable species and testing mitigation + collaborative approach	LIFE17NAT/PT/000484	demersal trawl, gillnet and longline	2017-2020	BirdLife International, Ana GONZALEZ - Project officer ana.gonzalez@birdlife.org Daniel CEBRAN - IAPBIO Coordinator daniel.cebran@iapbio.org Lolita BEN MOUHIA - Species Programme Officer lolita.benmohia@iapbio.org	Developing and implementing solutions to prevent bycatch, remove external challenges within the absence of a detailed understanding of the spatial/temporal interaction between fisheries and vulnerable species. Solutions to significantly reduce bycatch for some vulnerable species as sea turtles and birds have been developed with some successful trials and implementation of other parts of the work. However, very few investigations have been made to check if those technical solutions can reduce bycatch for multiple taxa at one time. Additionally, some mitigation techniques can be effective for one taxa but inefficient or harmful for others. Furthermore, in the Mediterranean there has been limited work on bycatch reduction solutions, and only in a few locations, made mainly on sea turtles (loggerhead and seabirds (longlines), in order to bring about a step change in the management of fisheries to reduce bycatch of vulnerable species, it will be necessary to understand the fishing operations and fishing gears in detail and test mitigation measures in collaboration with the fishing industry.	Improve knowledge on species and habitats affected by unsustainable fishing practices; Raise awareness of fishers and other target groups; Build capacities of relevant actors (NGOs, fisher organizations, administrators) for implementing sustainable fishing practices; Implement demonstration projects on sustainable fishing practices; Contribute to the development of a Mediterranean strategy and implement a communication campaign.	-	http://www.iapbio.org/ptweb0484/	
Portugal	Iberian Fisheries SPA	Peniche	LIFE BERLENGAS	LIFE17NAT/PT/000484	Purse-seine, gillnet, long-line	2014-2019	Isma Andrade - Portuguese Society for the Study of Birds, National Headquarters Avenida Columbano Bordalo Pinheiro, 87 - 3º andar 1070-002 Lisboa - Portugal joana.andrade@psa.pt	The project LIFE BerleNGAS will contribute to the sustainable management of the BerleNGAS Special Protection Area (SPA), among the conservation of its habitats, seabird populations and endemic plants. To achieve this, the focus will be on developing strategies to minimize or remove the main threats to the natural value of BerleNGAS, both on land and at sea. At the same time the project will promote the sustainable use of the BerleNGAS SPA, focusing on three key activities: fishing, recreational activities and tourism. A framework to prepare and approve an effective management plan for the BerleNGAS SPA will be implemented.	Preserving the endemic plants through the control and evaluation of invasive alien plants; Protection of seabird populations, identification of their foraging areas and minimise potential interactions with boats and fishing gear; Conservation of indigenous plants and seabird populations through the Yellow-legged gull population control and by the removal of introduced mammals; Encourage and establish sustainable practices for the Special Protection Area (SPA) management; raise and raise public awareness for the importance of a proper sustainable management of the BerleNGAS archipelago to preserve its natural and cultural values.	An on-board observer program was implemented to assess the bycatch of seabirds by commercial fisheries operating from the port of Peniche. The target gear was mainly gillnet, demersal longline and purse-seine. This information was complemented by questionnaires to fishing members on the ports of Peniche and Nazaré. Between May 2015 and June 2018, 295 fishing logs were monitored on 18 different vessels and 514 questionnaires were performed. During this period, 85 seabirds were caught in the on-board observer program, mostly <i>Morone bolearum</i> . The highest bycatch rates of this species were observed in the demersal longline operated by vessels with 12.3m length (15.49 birds / fishing day) followed by gill net operated by vessels with a length of 21.2m (12.045 birds / day fishing). The second species with more catches was the Cabotinho Anadromo, with 18 birds caught in the demersal longline (2.2m, resulting in a catch rate of 2.04 birds / day of fishing). The remaining captured birds included 2 shags, <i>Phalacrocorax aristotelis</i> , 1 common Phalarope <i>Phalaropus lobatus</i> , 1 great shearwater, <i>Arenaria interpres</i> , 1 yellow-legged gull <i>Larus michahellis</i> and 1 yellow-legged gull <i>Larus michahellis</i> <i>Larus fuscus</i> . Bycatch in gillnet and purse seine occurred outside the BerleNGAS SPA, while the majority of the demersal longline catches occurred within the SPA, mainly in the Fertile area. Spring and summer have proved to be the times of the year in which there is more seabird bycatch, coinciding with periods of increased fishing efforts. In general, the data collected through the questionnaires corroborated the results obtained by the on-board observer program. Obtaining accurate estimates of fishing effort was one of the major challenges of this work. Although it was possible to arrive at plausible fishing effort values using a variety of sources of information (logbooks, AIS system data and fishing license data). Finally, there is an	https://www.birdlife.org/ptweb0484/	
Portugal	Iberian Fisheries SPA	Peniche	Study on Mitigation Measures to Minimise Seabird Bycatch in the Coast Observance Building	DOAE/BMFF/2015/1.1	Gillnets	2016-2018	Margarite Tarias - BirdLife International The Coast Observance Building Penicheste Street Cambridge CB2 3DZ. birdlife@birdlife.org	The study Mitigation Measures to Minimise Seabird Bycatch in the Coast Observance Building focused on identifying, testing and assessing the effectiveness and impact of two experimental, technical gear modifications on gillnet fishing gear. Bycatch of seabirds and gillnets is a global conservation issue, and currently proven technical solutions do not seem to reduce bycatch from occurring. Furthermore, large gaps exist across Europe in our knowledge of the intensity of seabird bycatch, as data has not been systematically collected by EU member states.	The overall objective of this study was to identify technical solutions, both economically and biologically sustainable, to mitigate the incidental bycatch of seabirds in static net fisheries in EU waters (including the Mediterranean), with a particular emphasis on the Baltic Sea, western North Sea and western waters.	Net lights were shown to potentially reduce bycatch, although the results were not found to be statistically significant, and a larger sample size is needed in order to more conclusively demonstrate their effectiveness. It was not possible to demonstrate if net panels were effective in reducing bycatch from the data available in the study, although results from external studies carried out concurrently suggest that they are not effective as a mitigation measure (at least in the Baltic Sea). Results of the economic impact study indicate that the costs to equip existing gillnets with each of the local mitigation measures (buoyancy coils) were similar. The evaluation of fisheries catches indicates that there was no statistically significant difference between the volume of fish caught by normal gillnets and the volume of fish caught by gillnets equipped with the mitigation measures.	https://www.birdlife.org/ptweb0484/	
Poland	Pomeranian Bay and Puck Bay	NA	Study on Mitigation Measures to Minimise Seabird Bycatch in the Coast Observance Building	DOAE/BMFF/2015/1.1	Gillnets	2016-2018	Margarite Tarias - BirdLife International The Coast Observance Building Penicheste Street Cambridge CB2 3DZ. birdlife@birdlife.org	The study Mitigation Measures to Minimise Seabird Bycatch in the Coast Observance Building focused on identifying, testing and assessing the effectiveness and impact of two experimental, technical gear modifications on gillnet fishing gear. Bycatch of seabirds and gillnets is a global conservation issue, and currently proven technical solutions do not seem to reduce bycatch from occurring. Furthermore, large gaps exist across Europe in our knowledge of the intensity of seabird bycatch, as data has not been systematically collected by EU member states.	The overall objective of this study was to identify technical solutions, both economically and biologically sustainable, to mitigate the incidental bycatch of seabirds in static net fisheries in EU waters (including the Mediterranean), with a particular emphasis on the Baltic Sea, western North Sea and western waters.	Net lights were shown to potentially reduce bycatch, although the results were not found to be statistically significant, and a larger sample size is needed in order to more conclusively demonstrate their effectiveness. It was not possible to demonstrate if net panels were effective in reducing bycatch from the data available in the study, although results from external studies carried out concurrently suggest that they are not effective as a mitigation measure (at least in the Baltic Sea). Results of the economic impact study indicate that the costs to equip existing gillnets with each of the local mitigation measures (buoyancy coils) were similar. The evaluation of fisheries catches indicates that there was no statistically significant difference between the volume of fish caught by normal gillnets and the volume of fish caught by gillnets equipped with the mitigation measures.	https://www.birdlife.org/ptweb0484/	
Germany	Baltic Sea	Schleswig-Holstein	Scientific basis for an Ecosystem-compatible fisheries management in the German EEZ	DOAE/17/2015/1.1	longline, gillnets, traps	2012-2015	Dr. Ina Cornelia Dittell - Teamleiter Meeresschutz Km.Dittell@NABU.de 030-264884-1426; Sven 24126 Neherlein sm@meerzooportal.de	On behalf of the Federal Agency for Nature Conservation (BfN) the NABU with funding from the Ministry of the Environment, Nature Conservation, Building and Nuclear Safety (BMUB) from December 2012, a 3-year research project to alternative fishing techniques to their Sustainability in German coastal waters. At least two alternative fishing gear should be field tested in cooperation with commercial fisheries in sea adjacent to the Baltic Sea. It was examined whether static beam trawls in marine protected areas and other coastal regions can be replaced in the medium term by alternative types of equipment to prevent or reduce unintentional bycatch of seabirds and marine mammals in gillnets and entangled nets. By the intensive research cooperation should increase the acceptance of innovative fishing techniques and German fisheries research will be strengthened and dialogues between fishermen, conservationists and science promoted.	In a 3-year research project, NABU tested various alternative gear such as longlines and jiggers in the Baltic Sea. It collected data on catch yield, possible bycatches and cost-effectiveness.	Fisheries, fisheries research and nature conservation have shown that there is a willingness for constructive and solution-oriented cooperation. The gear are not economically feasible in every configuration, but their basic application in the German Baltic Sea fisheries is proven. Presumably, no single fishing technique can replace gillnets nationwide. It is advisable to further develop different alternative fishing gear - fishing systems, fish traps and large pots - but also possible setting network modifications in parallel. The bycatch of seabirds and porpoises can be minimized by fishing. If technical replacement of gillnets is not possible, the solution lies in combine with operational measures (time-limited inclusion periods) and incentive systems (selective access for environmentally-friendly fishing gear). Market incentives need to be developed to achieve better prices for fish from sustainable fisheries using alternative gear. The data base on avian and marine mammal bycatches needs to be improved. Fisheries research needs to be promoted, financially secured and developed.	https://www.nabu.de/focher/focher.html focher@nabu.de https://www.nabu.de/focher/focher.html	
Portugal	Iberian Fisheries SPA	Peniche	Mediterra Pesca - Medidas para a redução dos capturas acidentais de aves marinhas em áreas de pesca	MAR-G1-DA-02-FEAMP-0033	Gillnets, Longline	2018-2020	Joana Andrade - Portuguese Society for the Study of Birds, National Headquarters Avenida Columbano Bordalo Pinheiro, 87 - 3º andar 1070-002 Lisboa - Portugal joana.andrade@psa.pt	Mediterra Pesca is a project that aims to collect more data on the interaction between fisheries and seabirds in various parts of Portugal, in the area of Peniche, in order to develop and test measures to mitigate bycatch and implement an awareness campaign in partnership with AOCPE - Peniche Development Association.	1) To identify marine SPAs most susceptible to the occurrence of negative interactions between seabirds and commercial fishing, through 1.1) Analysis of the distribution and activity of the various fishing fleets in the five marine SPAs (Avante Nazaré, BerleNGAS, Cabo Raso, Cabo Espichel and Costa Solente); 1.2) Analysis of the overlap between different fisheries and the distribution and abundance of seabirds in the 5 marine SPAs, per season and for each species; 2) To develop and test 2 mitigation measures aimed at reducing seabird bycatch, namely the Balcario Shearwater and the razorbill; (3) assess the effectiveness of the measures tested, including their economic viability; 4) To raise awareness of the fishing community for the protection of marine biodiversity, with special emphasis on the problem of seabird bycatch.	No bycatch incidents were recorded by on-board observations, neither in the Iberian Sea nor Aegean Sea. On the other hand, data collected by questionnaires for fishermen and non-systematic data collected by the MCS and MCS field teams revealed that bycatch involves all major seabird species of conservation concern in Greece, namely the Audubon's Gull, Mediterranean Shearwater, Cory's Shearwater and Yelkouan Shearwater. Based on the impact of the catch on the seabirds in Greece as well as the characteristics of Greek fisheries, a series of existing catch mitigation measures have been identified to be suitable for mitigation of seabird bycatch in Greece.	http://www.sspa.pt/ptweb0484/	
Greece	Ionian and Aegean Seas	NA	Concrete Conservation Actions for the Mediterranean Shearwater and Audubon's Gull in Greece, including the inventory of Relevant Marine BAs	LIFE17 NAR/GR/002036	Longline, gillnets	2009-2012	Jiákos Filis - Project manager, Hellenic Ornithological Society (Hellenic Ornithological Society) Thessaloniki 55, GR 55063 Athina, Greece Tel: +30 210 8237357 - 10 210 823704 E-mail: info@ornithologiki.gr LIFE17 NAR/GR/002036. The seabird bycatch assessment was carried out by the Hellenic Centre for Marine Research (HCMR) and the Technological Educational Institution (TEI) of the Ionian Islands in collaboration with the Hellenic Ornithological Society (HOS) and Hellenic Society for the Study and Protection of the Mous Sea (HDSM).	The primary aim of the present report is to present the results of the by-catch assessment for the project's target species, the Audubon's Gull (<i>Larus auduboni</i>) and the Mediterranean Shearwater (<i>Phaethon rubricauda</i> demersalis) and to propose by-catch mitigation measures for the reduction of the impacts of by-catch on the target seabird species populations. In addition, the present report also assesses the impacts on other seabird species of conservation concern, including Cory's Shearwater (<i>Phalacrocorax melanoleucus</i>) and Yelkouan Shearwater (<i>Puffinus yelkouan</i>) for which by-catch data of incidental catches were also collected during the project.	No bycatch incidents were recorded by on-board observations, neither in the Iberian Sea nor Aegean Sea. On the other hand, data collected by questionnaires for fishermen and non-systematic data collected by the MCS and MCS field teams revealed that bycatch involves all major seabird species of conservation concern in Greece, namely the Audubon's Gull, Mediterranean Shearwater, Cory's Shearwater and Yelkouan Shearwater. Based on the impact of the catch on the seabirds in Greece as well as the characteristics of Greek fisheries, a series of existing catch mitigation measures have been identified to be suitable for mitigation of seabird bycatch in Greece.	https://www.ornithologiki.gr/images/stories/2012/246/68/42-174		
Croatia	Central Adriatic	SPA Lastovo and SPA Pula/Primorje	LIFE Active Project - Seabird Conservation Network in the Adriatic	LIFE17 NAR/HR/000594	All gear	2018-2023	Lidija BIONA, Preradovićeva 34 10000 Zagreb info@bion.hr	The LIFE Active Project is designed to address the main problems of the protection of three marine species: the Audubon's Gull, the Scopoli's Shearwater and Yelkouan Shearwater. Furthermore, the project's aim is to collect as much data as possible (biological data, fisheries data, ornithological data) needed by scientists and designate new areas of importance for birds SPA that will be completely new. This strategy will in the long term contribute to the effective management of the Adriatic Sea in Croatia with the aim to conserve seabird species, by setting up of the new marine SPAs in Croatia, Croatia would join the majority of the EU countries that have already protected such areas.	Identify marine SPAs in sea in southern part of Croatia for the Audubon's Gull, the Scopoli's Shearwater and Yelkouan Shearwater; Understand and assess the main threats affecting seabird populations on land and at sea in the project area and define actions to mitigate them; Evaluate anti-berminal trawling species (by-catch) that negatively impact on Shearwater breeding colonies and control of Yellow-legged gull breeding colonies of Audubon's Gull.	Expected results: Estimation of the presence and level of terrestrial and marine threats to seabird populations (predation, competition with other species, marine litter, disturbance by visitors, by-catch in fishing gear etc); Monitoring of the relevant fishery fleets (at least 20%) operating in the project area to estimate the level of bycatch; Mitigation methods implemented by at least 20% of relevant fishing fleets; Publication and distribution of good practice guidelines for marine birds, with emphasis on rules of behavior when encountering marine birds for tourists, tourists boat owners and fishermen.	http://www.bion.hr/en/homepage/	
Cyprus	Mediterranean Basin	NA	Cyprus Bycatch Project - "Understanding Mediterranean multi-taxa 'bycatch' of vulnerable species and testing mitigation + collaborative approach"	NA	Longline, gillnets	2018-2020	Arian Papadopoulos P.O. Box 11021 2340, Nicosia, Cyprus. arian.papadopoulos@birdlife.org.cy	The Cyprus Bycatch Project aims to better understand the issue in Cyprus and make fisheries more sustainable by testing the impact it may have on priority species, and to improve their status by reducing mortality caused by fishing activities.	Our main goal is to understand the magnitude of the bycatch problem on vulnerable species in longline and gillnet fisheries in polyseined and small coastal fishing boats.	https://birdlife.org.cy/cyprus-bycatch-project/		
Croatia	Central Adriatic	NA	Adriatic Seabird Guardians	NA	Longline	2019-2021	BION/Croatia, Zeljka Rajković - zeljka.rajkovic@bion.hr	This project implemented by Association Bion and supported by Fondation Segré aims to carry out concrete conservation actions in order to preserve the Yelkouan Shearwater, the Scopoli's Shearwater and the Audubon's Gull on the remote archipelago in the southern Adriatic Sea - Lastovo Islands, located halfway between Croatia and Italy.	Reduce the level of seabird bycatch in longline fishery in Croatia by equipping more fishing vessels with bird friendly fishing gear.	https://www.bion.hr/en/page/active-seabird-guardians/		

Country	Region	Locality	Project name	Project number	Fishing gear	Duration	Coordinator and contacts	Summary	Objectives	Results	Website	Notes
Lithuania	Baltic Sea	Curonian Lagoon	Untangling the net: tackling bird bycatch in Baltic gillnet	NA	Gillnet	2017-2020	Lithuanian ornithological society (OO), Lithuania Julius Morkevas julius.morkevas@bioteilka.lt	Seabird bycatch in gillnet fisheries is a global conservation issue and the Baltic Sea is considered one such hotspot, with an estimated 76,000 birds caught annually in the sea basin including threatened species such as the Velvet Scoter and the Long-tailed Duck. There is currently no proven, effective solution to prevent seabirds from being caught in gillnets. This project aims to further understand the bycatch problem in Lithuania, develop and test experimental methods to reduce bird bycatch in nets, along with raise the awareness of decision makers for the need for diverse suitable management strategies.	To benefit threatened Baltic sea ducks, with the main target groups being gillnet fishermen in both Lithuania and Russia and fisheries managers seeking to reduce seabird bycatch in gillnets (particularly within Lithuanian waters, but with high relevance to gillnet fisheries with seabird bycatch issues across the Baltic Sea region and globally).		https://bioteilka.org/taisykla/taisykla/taisykla/taisykla/taisykla/	(partners: ROPB, BirdLife International)
Lithuania	Baltic Sea	NA	Jūros paukščių prapagaudos mažinimo priemonių testavimas Baltijos jūros prakrantėje (Mitigation measures for seabird bycatch testing in Baltic sea coastal area)	NA	Gillnet	2019-2021	Lithuanian ornithological society (OO), Lithuania Morkevas julius.morkevas@bioteilka.lt		To test lines and night setting in coastal Baltic sea areas in Lithuania to reduce bycatch of birds. Together make seabird courts form shore to evaluate mitigation gear effectiveness. Based on results prepare recommendations of mitigation trials.			(partners: Klaipėda University, Fisherman association)
France	Mediterranean Basin	Port Cros	MAVA bycatch Port Cros	NA	All gear	2019-2020	LPO/France – Thierry Micol Thierry.micol@lpo.fr		Collaborate with fishers in Port Cros to collect data on the incidental bycatch of vulnerable species at multi-tasks level (evaluating the GFCM methodology) and to test mitigation measures. To increase awareness on the issue of bycatch via communication activities, national roundtable meeting in France with stakeholders and governments, meeting with Fisheries Department, local authorities, and other relevant government bodies to discuss bycatch.		https://www.lpo.fr/mediterranee/maava/maava/maava/maava/maava/	Funded by MAVA Foundation
France	Mediterranean Basin	Port Cros	??	NA	All gear	2019-2021	LPO/France – Thierry Micol Thierry.micol@lpo.fr		Address seabird bycatch awareness to local fishermen, on-board observations in six boats, testing mitigation measures in 3 boats in Hyeres archipelago in the Port Cros national park which includes three small islands inhabited with 92% of the French Yachouan, exchanging info on activities/uses/measures between French professionals and Spanish people, knowledge transfer to other threatened MPAs in the Mediterranean.		https://www.lpo.fr/mediterranee/maava/maava/maava/maava/maava/	Funded by Mark Constantine YS
Germany	OSPAR and HELCOM region	NA	MERCH - Marine conservation within the context of OS	NA	All gear	2017-2020	NABU /Germany – Gesine Lange & Thorsten Werner Gesine.Lange@NABU.DE Thorsten.Werner@NABU.DE		Analyze, develop and assess conservation measures of OSPAR and HELCOM (topics: MPAs, MPA management, biodiversity, Htar, fisheries, MSP)		https://www.nabu.de/verkehr/maava/maava/maava/maava/maava/	
Germany	Baltic Sea	Schleswig-Holstein	"Fischfangprojekte" (bailed pots)	NA	Gillnet, pots	2018-2019	NABU /Germany – Kim Detloff Kim.Detloff@NABU.DE		Development of and trials with bailed pots in Schleswig-Holstein		https://www.nabu.de/verkehr/maava/maava/maava/maava/maava/	
UK	Baltic Sea	NA	Baltic gillnets	NA	Gillnet	2018-2019	RSPB/UK – Yann Rozuel Yann.rozuel@rspb.org.uk		increase understanding of the bycatch problem in Lithuania, develop and test experimental methods to reduce bycatch in gillnets, and raise awareness among decision makers on management.		https://www.rspb.org.uk/our-work/conservation/conservation/conservation/conservation/conservation/	
Spain	Mediterranean	Cataluña, Comunitat Valenciana, Islas Baleares, Región de Murcia	ZEPAMED II	NA	All gear	2018-2019	SIO/Spain – Pep Arcos & Vero Cortes jmarcos@sio.org vcorcetes@sio.org		Integrating the fishing sector in the management of the Marine SPAs in Spanish Mediterranean by promoting their involvement in collecting data about seabird interactions (logbooks) and testing mitigation methods for reducing seabird bycatch		https://www.sio.org/mediterraneo/mediterraneo/mediterraneo/mediterraneo/mediterraneo/	Funded by EMFF
Spain	Atlantic	Galicia	ZEPAMAR	NA	All gear	2020	SIO/Spain – Pep Arcos & Vero Cortes jmarcos@sio.org vcorcetes@sio.org		To develop further into the strategies to reduce seabird bycatch with the direct involvement and training of fishers and extending the work carried out in the Mediterranean to the Spanish Atlantic, with particular focus on the Spanish marine Natura 2000 network.		https://www.sio.org/atlantico/atlantico/atlantico/atlantico/atlantico/	
Spain	Mediterranean	NA	MAVA Med bycatch II	NA	All gear	2018-2020	SIO/Spain – Pep Arcos & Beatriz Benayas jmarcos@sio.org bbenayas@sio.org		Advocate to Mediterranean decision makers on bycatch fisheries management, data collection, technical mitigation, controls & enforcement, and new EU fisheries policy beyond 2020.		https://www.sio.org/atlantico/atlantico/atlantico/atlantico/atlantico/	
Portugal	Atlantic	Pescadeiro	Asasin	MAR-G2.03.02.41/MAR-GC	Longline	2019-2022	SPEA/Portugal – Joana Oliveira & Joana Andrade joana.oliveira@sipa.pt joana.andrade@spea.pt		Define the certification framework for fishery products caught within the area of the Berlengas Biosphere Reserve (NRES03) applicable to small-scale fisheries and taking into account environmental, economic, and social sustainability criteria		https://www.sipa.pt/pt/actividades/comunicacao/pressao/pressao/	Funded by EMFF
Portugal	Atlantic	Ria Formosa SPA	LIFE Ehas Barreira	LIFE18 NAT/PT/000927	Gillnet, purse-seine	2019-2024	SPEA/Portugal – Joana Andrade joana.andrade@spea.pt		Conserving the Barreira Islands in Algarve to protect priority species and habitats; Evaluation of seabird bycatch and dependency on fisheries discards; Trials of mitigation measures to avoid seabird bycatch.			

