

FUTURE OF BIRD-FRIENDLY MARINE POLICY IN CROATIA



LIFE Artina Project Policy Brief

Biom Association
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Project **LIFE Artina – Seabird Conservation Network in the Adriatic** (2018-2023) is the first project in Croatia that focuses on the conservation of the three endangered species of seabirds - **Yelkouan Shearwater** *Puffinus yelkouan*, **Scopoli's Shearwater** *Calonectris diomedea* and **Audouin's Gull** *Larus audouinii*. One of the three main project objectives was to identify marine SPAs at sea in southern Croatia for these seabird species.

Seabirds depend on the marine environment for food and spend long periods out at sea. They return to islands only to breed and raise their chicks. Seabirds are affected by threats both on land and at sea¹.

On islands these birds are affected by **human disturbance** (such as mooring, light pollution, tourist visitation, egg collecting); **predation by invasive mammalian species** (such as rats, feral cats, mongoose); **pollution with waste/litter** (e.g. plastic, fishing gear); **habitat degradation by humans** (due to building & construction) or **introduced species of plants and animals** (e.g. overgrazing by sheep and goats, wild boars/feral pigs); **negative interactions with other native species** (such as Yellow-legged Gull and stone marten); **Highly pathogenic Avian Influenza virus** (HPAIV); and **climate change**.

At sea they are affected by **disturbance from vessels** passing by (e.g. boat excursions, nautical tourists, jet skis, fishers), in case they speed and produce noise, as well as **light pollution**; **pollution** (e.g. marine litter, petrol, toxic chemicals, discharges, oil spills); **renewable energy infrastructure** (windfarms, floating solar panels); fisheries bycatch (from longline fishery, set net fishery, purse seine fishery, trawl fishery, recreational fishery, traps...); **lack of food due to overfishing**; and **climate change** which causes warming up of the sea (higher sea temperatures are less productive).

All three seabird species are on the **IUCN Red List of Threatened Species**.

Yelkouan Shearwater is categorized as vulnerable (VU) at all four levels – global, Europe, European Union, and Croatia.

Scopoli's Shearwater is categorized as least concern (LC) at global, Europe and EU level and near threatened (NT) at the level of Croatia.

Audouin's Gull is characterized as vulnerable (VU) at global, Europe and EU level and endangered (EN) at the level of Croatia. All three species are also listed on the **Annex 1 of the EU's Bird Directive**.

¹ Dias, M. P., Martin, R., Pearmain, E. J., Burfield, I. J., Small, C., Phillips, R. A., Yates, O., Lascelles, B., Borboroglu, P. G. and Croxall, J. P. 2019. Threats to seabirds: A global assessment. *Biological conservation*, 237, 525-537.

Important Bird and Biodiversity Areas (IBAs) are sites that are significant for the long-term viability of birds, identified using scientifically robust and standardised criteria. The criteria ensure that the sites selected as IBAs have true significance for the international conservation of bird populations and provide a common



currency that all IBAs adhere to, thus creating consistency among, and enabling comparability between, sites at national, continental and global levels. IBAs are identified by the BirdLife Partnership and the **BirdLife Data Zone** stores data on species and sites (IBAs).

A Special Protected Area (SPA) is a site designated under the Birds Directive and forming part of the Natura 2000 network. According to the European Court of Justice ruling C-396 IBAs should be thoroughly considered regarding the designation of SPAs and IBAs have consistently been used as a scientific reference list for the designation of SPAs².

The EU Biodiversity Strategy for 2030 sets to enlarge existing Natura 2000 areas, with strict protection for areas of very high biodiversity and climate value. It seeks to have legal protection for at least 30% of EU sea area and strict protection for at least 10% of EU sea area.

Croatia designated its SPAs in 2013 and the marine SPA network in Croatia covers only 1.4% of marine area (Mitchell et al., 2022). Since then, the European Commission has repeatedly stated that Croatia needed to complete its marine Natura 2000 network, especially regarding at-sea SPAs. Currently, the overlap of IBAs and SPAs in Croatia is 100%, which means that Croatia has designated all its marine IBAs as SPAs².

As part of LIFE Artina, three years of research (2019-2021) was carried out, collecting data regarding the distribution of Yelkouan Shearwater, Scopoli's Shearwater and Audouin's Gull at sea, along the coast and on colonies within the project area.

The methods applied, included censuses of seabird colonies, boat transect counts for recording seabirds at sea, and telemetry by using radio and GPS tracking. GPS tracking was done during the chick rearing stage on 40 Yelkouan and 40 Scopoli's Shearwaters and 25 Audouin's Gulls. Altogether this resulted in the designation of **five new marine IBAs and the extension of two existing ones**³.

The five new marine IBAs are exclusively at-sea and are important for feeding and roosting of these seabirds. The new marine IBAs are Lastovo Channel, Korčula Channel, Hvar Channel, East Mljet Channel, and Northern Adriatic. The two existing IBAs that were extended are Lastovo Archipelago and Offshore Islands, which are at the same time SPAs – Lastovsko otočje and Pučinski otoci.

² Mitchell, D., Vulcano, A. and Dias, M. 2022. Assessment of the protection of Important Bird and Biodiversity Areas for seabirds by Special Protection Areas of the Natura 2000 network. How well are EU Member States protecting seabirds? BirdLife International – Europe and Central Asia. 30 pp.

³ International – Europe and Central Asia. 30 pp.

Zec, M., Engelen, D., Handley, J. and Rajković, Ž. 2023. IBA identification for seabirds in Croatia: supporting designation of marine SPAs. LIFE Artina (LIFE 17 NAT/HR/000594) report for actions C5 and E1. Association Biom (BirdLife Croatia). 21 pp.



Yelkouan Shearwater (Author: B. Vercruysse)

The extension of Lastovo Archipelago deals with important area for Audouin's Gull southeast of Lastovo and 5 km seaward extension around the island of Sušac. The extension of Offshore Islands deals with 5 km seaward extension around the island of Svetac³.

All new marine IBAs and extensions of the existing IBAs will be designated as SPAs by the competent ministry. They will be managed by public institutions for management of protected areas and, in the case of the site in the Exclusive Economic Zone (EEZ) – Northern Adriatic, by the ministry competent for nature protection.

In addition to the designation of IBAs, conservation objectives and conservation measures have been developed by the LIFE Artina project⁴. Conservation objectives deal with trends of the breeding population, the number of breeding pairs, the adult survival rate and the breeding success. They also deal with the suitable habitat, both terrestrial and marine, and include suggestions for ecosystem restoration. Finally, they deal with threats such as non-native mammals, barriers to connectivity, light pollution, fisheries bycatch, waste management, vessel speed, and availability of food⁴.

Management activities and conservation measures deal with monitoring of breeding colonies and threats on land, monitoring the number of mature individual birds using the marine SPAs, determining remaining foraging and congregation areas of other important colonies (e.g. in Pučinski otoci), assessing threats at sea, restricting access to island with breeding colonies, restricting building on seabird islands, removal of non-native mammals, implementation of invasive species control and island biosecurity, restricting anchoring on islands with breeding colonies, education of the local community, promotion of biosecurity practises, reporting of dead birds, cooperation with institutions that manage maritime domain, closing of open landfills and improving waste management, restricting offshore renewables, mitigation of disturbance due to light pollution from land and from vessels at sea, regulating vessel speed during the breeding season, assessing and mitigating seabird bycatch, designation of no-take zones to allow fish stocks to recover, monitoring and removing marine litter, and surveillance and enforcement⁴.

⁴ Rajković, Ž. and Engelen, D. 2023. Proposed management objectives and management measures for proposed marine SPAs in Croatia. Association Biom (BirdLife Croatia). 78 pp.

The competent ministry will use these conservation objectives and measures when designating new SPAs and revising the two existing ones.

Regarding the nature protection sector, management objectives and measures will be prescribed in the Regulation on management objectives and measures for SPAs, which is regularly updated. More measures can be prescribed in the management plans, which have to be developed by management authorities (public institutions and competent ministry) for all SPAs. Currently only Lastovo Islands Management Plan exists (2017-2026) and the new plan will need to incorporate updated management objectives and measures.

Bird-friendly marine policy encompasses many different sectors – nature protection, spatial planning, fisheries, maritime domain, energy, tourism, etc.

All these sectors will need to implement conservation measures. Some of the measures can be implemented without any new regulations, some need to be integrated into other sectors' plans and programs, and some even require amending existing regulations.

For more details regarding seabird bycatch there is another LIFE Artina Project Policy Brief, on Measures for the Mitigation of Impact of Fishing Activities on Sensitive Seabird Species in Croatia.

Management plans for the other SPAs will need to be adopted in the near future. Nature protection sector will continue its efforts to inform and raise awareness of other sectors on seabird issues. The other sectors also need to be consulted on how to best implement conservation measures. This should be done by strong cooperation among competent authorities, the scientific community, and civil society. Cooperation can be achieved through a coordination body which would help discuss the relevant issues and propose joint solutions. The Marine Strategy Framework Directive (MSFD) already has an expert National Committee for marine environment and coastal area management. There are also expert thematic working groups and expert regional committees for the management of marine environment and coastal area, which might be a good place to discuss these multisectoral issues⁵.

Audouin's Gull (Author: B. Ječmenica)



⁵ Program mjera zaštite i upravljanja morskim okolišem i obalnim područjem Republike Hrvatske 2022.-2027. – nacrt. Ministarstvo gospodarstva i održivog razvoja. 244 pp.



Zaklopatica Bay and island Škoj od Zaklopatice
(Author: B. Vercruysse)

Lastly, besides the three seabird species mentioned in this policy brief, it is important that future efforts also consider other seabird species from the [Annex 1 of the EU's Bird Directive](#) - Common Tern *Sterna hirundo*, Little Tern *Sterna albifrons* and Mediterranean Shag *Phalacrocorax aristotelis desmarestii* - in particular to see if the current SPA network in Croatia covers important feeding and congregation sites for these species.

We invite you to implement this policy and strengthen the inter-sectoral cooperation for the benefit of these endangered seabirds.

LIFE Artina Action E.1 Advocacy for designation of MPAs in Croatia
Deliverable: Report about bird-friendly marine policy

Project partners



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