LIFE18 NAT/PT/000927 Project

INTERNATIONAL SINGLE SPECIES ACTION PLAN FOR THE CONSERVATION OF AUDOUIN'S GULL (2025 - 2035)

LARUS AUDOUINII

European Union (EU)

International Single Species Action Plan for the Conservation of Audouin's Gull (2025 - 2035)

Larus audouinii

LIFE18 NAT/PT/000927 Project

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Sociedade Portuguesa para o Estudo das Aves (SPEA) & BirdLife International

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1. INTRODUCTION

The International Action Plan for Audouin's Gull (Lambertini, 1996), hereinafter referred as Species Action Plan (SAP), was published in 1996 and approved by the Ornis Committee. Despite the SAP not being revised since then, its implementation has been reviewed five times, in 2000 (Gallo-Orsi, 2001), 2004 (Nagy & Crockford, 2004), 2007 (Gallo-Orsi & Orhun, 2008), 2010 (Barov & Derhé, 2011) and 2024 (Oliveira et al., 2024).

2. BASIC DATA

2.1 Species and populations covered by the Plan

This Single Species Action Plan covers most of the known range of the Audouin's Gull.

2.2 List and map of Range States

Table 1 | Range states of the Audouin's Gull covered by this Action Plan.

Breeding	Wintering
Algeria (DZ)	Gambia (GM)
Croatia (HR)	Libya (LY)
Cyprus (CY)	Mauritania (MR)
France (FR)	Morocco (MA)
Greece (EL)	Senegal (SN)
Italy (IT)	Egypt (EG)
Morocco (MA)	
Portugal (PT)	
Spain (ES)	
Tunisia (TN)	
Türkiye (TR)	

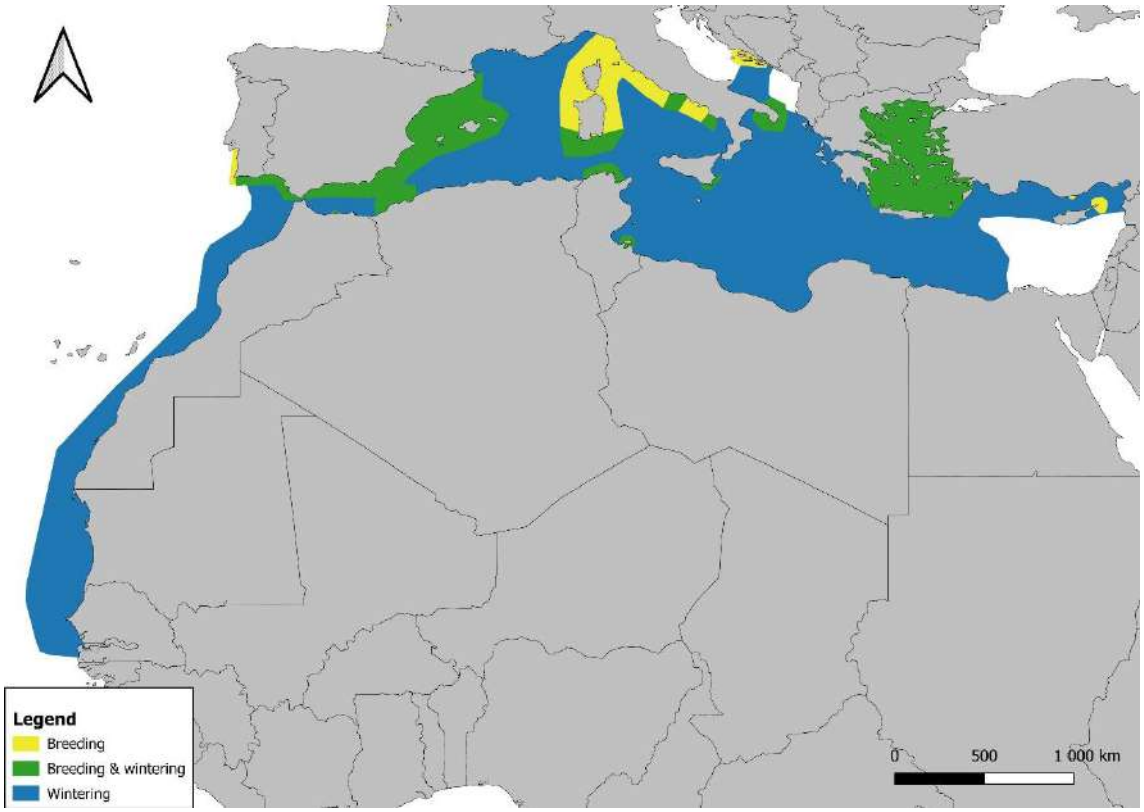

Figure 1 | Global distribution range of the Audouin's Gull. Adapted from BirdLife (2020) and updated under the scope of the present work.

2.3 Global, Regional and sub-regional Red List Status

IUCN Global assessment	Vulnerable
IUCN European regional assessment	Vulnerable

2.4 International Legal Status

Instrument	Relevant section
African-Eurasian Migratory Waterbird Agreement (AEWA)	Column A, category 1a 3a
Convention on Migratory Species (Bonn Convention)	Appendices I & II
Barcelona Convention	Annex II
Bern Convention	Appendix II
EU Birds Directive	Annex I

3. FRAMEWORK FOR ACTION

For background information, see the following:

- Annex 1. Biological Assessment, page 29
- Annex 2. Problem Analysis, page 32
- Annex 3. Conservation Status by Country, page 39

Goal

To restore the global population of the Audouin's Gull (*Larus audouinii*) to a favourable conservation status and remove it from the threatened categories on the global IUCN Red List.

Purpose

Significantly reduce negative anthropogenic impacts on survival and breeding success, conserve suitable habitats in order to promote the expansion of the species' range and understand the drivers of regional decline by 2035.

The detailed framework for Action of this SAP is presented below in Tables 3.1 to 3.5.

Table 2 | Scales definition.

Threat assessment	Action priority	Action timescale
Critical - causing or likely to cause very rapid declines and/or extinction	Essential	Immediate - launched within the next year
High - causing or likely to cause rapid decline leading to depletion	High	Short - launched within the next 3 years
Medium - causing or likely to cause relatively slow, but significant, declines	Medium	Medium - launched within the next 5 years
Low - causing or likely to cause fluctuations or minimal change	Low	Long - launched within the next >5 years
		Ongoing - currently being implemented and should continue
		Rolling - to be implemented perpetually

Table 3.1 | Framework for action for Objective 1 (Increase breeding success and survival rates).

Direct problem: Additive anthropogenic perturbation and mortality	Objective 1: Increase breeding success and survival rates				
Underlying problems	Result	Action	Priority	Time scale	Organisations responsible
Depletion of food resources	1.1 – Prevent or invert overfishing in the feeding areas and at the colonies' surroundings.	1.1.1 – To influence EU fisheries policies and regulations for the benefit of biodiversity conservation in the Mediterranean, namely the ones related with overfishing prevention (EL, FR, HR, IT, PT, ES). 1.1.2 - To influence fisheries policies and regulations to prevent overfishing at the breeding grounds in the Mediterranean outside EU (DZ, CY, MA, TN, TR) 1.1.3 – To influence international fisheries policies and regulations to prevent overfishing at the wintering grounds (GA, GM, LBY, MR, MA, SN). 1.1.4 – Fishing moratoria in a way that is compatible with the subsistence of the major breeding colonies (EL, FR, HR, IT, PT).	High	Short	European Commission, State conservation and fishery agencies, RFMOs, NGOs.
Changes in fishing practices	1.2 – Prevent an abrupt effect of the EU discard ban	1.2.1 – Define and adopt proper management and adaptation strategies to avoid a sudden food shortage (CY, EL, FR, HR, IT, MA, PT, ES).	High	Short	European Commission, State conservation and fishery agencies.
Negative interactions with mammals	1.3 – Predation by native (e.g. foxes and badgers) and non-native fauna (e.g. cats, rats and dogs) is	1.3.1 – Humane control or relocation of foxes, stray cats, badgers, and stray dogs is implemented to protect colonies (CY, EL, ES, FR, HR, PT, TR).	High	Medium	State conservation agencies, NGO

	minimised, and where possible, eliminated.	1.3.2 – Humane rat control programmes are implemented when egg and/or nestling predation occurs on a scale that seriously threatens the viability of a colony (CY, EL, ES, FR, HR, PT, TR). 1.3.3 - Provide artificial refuges to Audouin's Gull chicks to reduce predation risk (CY, EL, ES, FR, HR, PT, TR).			
Negative interactions with Yellow-legged Gulls	1.4 – Predation by Yellow-legged Gulls is minimised, and where possible, eliminated.	1.4.1 – Improve management of urban residual systems and landfills (CY, EL, ES, FR, HR, PT, TR, IT). 1.4.2 – Humane population control of Yellow-legged Gulls is undertaken where there is strong evidence that competition and predation are limiting factors for Audouin's Gull at the local level (CY, EL, ES, FR, HR, PT, TR, IT).	Medium	Medium	State conservation agencies, NGO
Human disturbance	1.5 – Prevent and reduce human disturbance	1.5.1 - Control of human access to colonies to prevent breeding failure and site abandonment (CY, EL, ES, FR, HR, MA, PT, TR, IT). 1.5.2 – Regulation of trekking, boating, sea bathing, birdwatching or any other activity perceived to disrupt breeding gulls (CY, EL, ES, FR, HR, MA, PT, TR, IT).	High	Ongoing	State conservation agencies, NGO
Chemical pollution & Oil spills	1.6 - Prevent chemical pollution of the sea and oil spills	1.6.1 - Enforce national and international legislation on chemical pollution and industrial treatment (EL, FR, IT, PT, TR). 1.6.2 – Avoid or control chemical release from both offshore and land-based sources (EL, FR, IT, PT, TR). 1.6.3 – Control the use of agricultural chemicals near breeding colonies (EL, FR, IT, PT, TR). 1.6.4 – Establish a system of incentives for oil tanker companies which agree to avoid sensitive marine ecosystems (EL, FR, IT, PT, TR). 1.6.5 – Enforcement of laws to prevent the cleaning of oil tankers outside areas especially designated for that purpose (EL, FR, IT, PT, TR).	High	Ongoing	European Commission, state environmental, planning, energies, shipping and conservation agencies, International Maritime Organisation

Indirect adverse effects and direct mortality caused by construction and operation of windfarms in breeding and key wintering sites	1.7 - Construction of windfarms in key Audouin's Gull sites must be avoided, and where this occurs, the impacts on this species are considered and minimised	1.7.1 - Audouin's Gull conservation needs must be fully taken into account during spatial planning for coastal areas and EEZs (EL, ES, HR, IT, PT).	High	Rolling	State conservation, planning and energy agencies
		1.7.2. - Subject all coastal and offshore windfarms to SEA/EIA (EL, ES, HR, IT, PT).	High	Rolling	State conservation, planning and energy agencies
		1.7.3 - Develop year-round Audouin's Gull sensitivity maps at different spatial scales (EL, ES, HR, IT, PT).	High	Short	State conservation agencies, NGOs
Bycatch in commercial and recreational fisheries	1.8 - Bycatch in commercial and recreational fisheries is minimised and possibly eliminated	1.8.1 - Develop and test seabird-friendly fishing gear suitable for Audouin's Gull (CY, ES, EL, FR, HR, PT, IT).	High	Short	State conservation and fishery agencies, RFMOs, NGOs.
		1.8.2 - Deploy seabird-friendly fishing gear on fishing vessels operating at key Audouin's Gull breeding sites as a mandatory requirement for commercial and recreational fisheries if and when such is available (CY, ES, EL, FR, HR, IT).	High	Medium	State conservation and fishery agencies, RFMOs.
		1.8.3 - Develop year-round Audouin's Gull sensitivity/risk maps at different spatial scales (CY, ES, EL, FR, HR, PT, IT).	High	Short	State conservation and fishery agencies, NGOs.
		1.8.4 - Define and adopt measures to mitigate the adverse effect of bycatch by recreational fishing, particularly close to colonies and in coastal concentration areas (IT)	Moderate	Short	State conservation and fishery agencies, NGOs.
Lack of legal protection	1.9 – Audouin's Gull and its habitats receive full protection through national and international legislation	1.9.1 – Designate all breeding colonies with more than 30 individuals or 10 breeding pairs (IBA Criterion A1 - Globally Threatened Species) as protected areas or implement alternative legal tools in order to achieve the full protection of the colonies (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	High	Medium	State conservation agencies.

		1.9.2 – Designate as protected areas the key foraging sites around the breeding colonies (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	High	Medium	State conservation agencies.
		1.9.3 – Seek protection for all regular wintering sites with more than 200 individuals (GA, GM, LBYA, MR, MA, TN, SN),	Medium	Medium	State conservation agencies.
		1.9.4 – Publish management plans for all protected areas (all).	High	Medium	State conservation agencies.
		1.9.5 – Promote temporary protection schemes on islands and archipelagos with high colony mobility, on a year-by-year base (HR, FR, EL, IT, MA, TN, TR).	High	Rolling	State conservation agencies.
Disturbance from population monitoring and research	1.10 - Protocol for low-disturbance monitoring and research at the colonies	1.10.1 – Develop and agree on a protocol for low disturbance monitoring and research at the colonies, involving all teams performing research and management of the species (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Short	State conservation and research agencies, research agencies, NGOs.
Egg-collection	1.11 - Prevent egg-collecting at breeding sites	1.11.1 – Increase surveillance during the breeding period and enforcement of existing sanctions (HR, TN, TR).	Low	Ongoing	State conservation agencies.

Table 3.2 | Framework for action for Objective 2 (Maintain, create or restore safe alternative sites for eventual expansion within target areas).

Direct problem:	Objective 2: Maintain, create or restore safe sites for nesting and eventual expansion of the breeding range				
Insufficient and inadequate breeding habitats					
Underlying problems	Result	Action	Priority	Time scale	Organisations responsible
Habitat alterations at the breeding sites	2.1 - Prevent habitat alteration at all	2.1.1 - Enforcement of the legal protection status of all sites already designated (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Low	Rolling	State conservation agencies.

	regular and traditional breeding sites	2.1.2 – Submit to SEA/EIA all proposed land-use changes that threaten occupied or traditional breeding sites (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Low	Rolling	State conservation and planning agencies.
		2.1.3 – Maintain legal protection for deserted traditional colonies to secure the potential return of breeding individuals (DZ, HR, CY, FR, EL, IT, MA, ES, TN, TR).	Low	Rolling	State conservation agencies.
Lack of national coastal strategies	2.2 – National coastal strategies developed	2.2.1 – Develop and implement coastal strategies which ensure the sustainable planning and management of coastal areas, safeguarding all traditional and current colonies, as well as major roosting sites (DZ, HR, CY, FR, EL, IT, MA, ES, TN, TR).	Medium	Medium	State research agencies, research institutions.

Table 3.3 | Framework for action for Objective 3 (Close knowledge gaps).

Direct problem:	Objective 3: Close knowledge gaps				
Lack of knowledge					
Underlying problems	Result	Action	Priority	Time scale	Organisations responsible
Lack of knowledge at a local scale on essential population parameters of Audouin's Gull ecology, movements and distribution, as well as on scale and impacts of limiting factors	3.1 - Research and monitoring work on priority issues are undertaken	3.1.1 - Monitor population size, breeding distribution and trends, with results made available through regular data reporting and dissemination in a common language. (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	High	Rolling	State conservation and research agencies, research agencies, NGOs
		3.1.2 - Determine the extent, location and demographic role of discrete populations and assess relationships among different breeding colonies (e.g. through colour-ringing and coordinating the ringing scheme at international level) (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Rolling	MEDMARAVIS, EURING, state conservation and research agencies, research agencies, NGOs

	3.1.3 - Identify the most important passage sites and wintering areas (GA, GM, LBY, MR, MA, SN).	High	Medium	State conservation and research agencies, research agencies, NGOs
	3.1.4 - Undertake research and establish monitoring on population dynamics to identify 1) the factors that influence and regulate breeding success and survival, and 2) the patterns and mechanisms through which these factors act (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	High	Medium	State conservation and research agencies, research agencies, NGOs
	3.1.5 – Undertake comparative studies of breeding biology and colony-site selection in different habitats, focusing on understanding the mechanisms of site selection and evaluating breeding success across habitats. Establish site-selection preferences of young Audouin's Gulls born in atypical habitats for the species, such as saltmarshes (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Medium	State research agencies, research agencies, NGOs
	3.1.6 - Determine the diet across different parts of the breeding range, taking into consideration inter-colony and inter-individual variability within colonies, age-related differences, and the influence of food abundance and availability at sea during different periods (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Medium	State research agencies, research agencies, NGOs
	3.1.7 - Develop and initiate research projects that assess the effects of chemical pollution and oil spills (all).	Medium	Medium	State research agencies, research agencies.
	3.1.8 - Develop and initiate research projects that assess the effects of fishing policies (all).	High	Medium	State research and fisheries agencies, research agencies.

	3.1.9 - Undertake studies to ascertain habitat requirements (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Medium	State research agencies, research agencies.
	3.1.10 - Develop and initiate research projects that assess the effects of human disturbance on breeding failure and egg/chick mortality (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Medium	State research agencies, research agencies, NGOs.
	3.1.11 – Develop and initiate studies on population dynamics, feeding and habitat selection of the Yellow-legged Gull, to evaluate its impact on Audouin's Gull (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Medium	State research agencies, research agencies, NGOs.
	3.1.12 - Undertake studies and establish monitoring on the impact of predation by native and introduced species (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Rolling	State research agencies, research agencies, NGOs.
	3.1.13 - Undertake studies and establish monitoring on the effect of fishing activities on breeding and wintering Audouin's Gulls, namely in terms of fish stock depletion, bycatch and interactions (all).	High	Rolling	State research and fisheries agencies, research agencies.
	3.1.14 - Undertake studies and establish monitoring on the effect of aquaculture activities on breeding and wintering Audouin's Gulls, namely in terms of perturbation, entanglement and interactions (all).	Medium	Medium	State research and fisheries agencies, research agencies.
	3.1.15 – Develop and initiate research projects that examine the impact of climate change factors on the population status of Audouin’s Gull (all).	Medium	Medium	State research agencies, research institutions.
	3.1.16 - Undertake studies and establish monitoring to assess the scale of High Pathogenic Avian Influenza Virus and other diseases (IT, PT).	High	Rolling	State veterinary, conservation and research agencies, research institutions, NGOs.

	3.1.17 - Develop and initiate research projects that examine the impact of colonisation of urban and other areas (e.g. rooftops of industrial areas or fishing harbours) for breeding on the nesting and foraging behaviours of Audouin's Gull (ES, MA).	Low	Long	State research agencies, research institutions.

Table 3.4 | Framework for action for Objective 4 (Communication and partnership working towards metapopulation management).

Direct problem: The species is unknown by most of the publics	Objective 4: Enhance public awareness and communication				
Underlying problems	Result	Action	Priority	Time scale	Organisations responsible
Lack of available information on the species and weak awareness	4.1 – Information about the species and its habitats is made available and awareness increased	4.1.1 Increase awareness about Audouin's Gull among politicians and decision-makers (all)	Medium	Medium	State conservation agencies, NGOs.
		4.1.2 - Inform the general public about the unfavourable conservation status and population trend of Audouin's Gull (all)	Medium	Rolling	State conservation agencies, NGOs.
		4.1.3 – Involve tourists and fishermen in preventing disturbance and damage to the species (all).	High	Rolling	State conservation agencies, local governments, NGOs.
		4.1.4 – Involve citizens in active participation in conservation activities (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR)	Medium	Rolling	State conservation agencies, local governments, NGOs.
		4.1.5 - Prepare and distribute educational material (all).	Medium	Medium	State conservation agencies, NGOs.

	4.1.6 - Use the media to increase awareness (all).	Medium	Rolling	State conservation agencies, NGOs.
	4.1.7 - To use Audouin's Gull as a flagship species (all)	Medium	Medium	State conservation agencies, NGOs, BirdLife International.

Table 3.5 | Framework for action for Objective 5 (Establish structures for the implementation of the International Action Plan).

Direct problem: Lack of national and international coordination	Objective 5: Establish structures for the implementation of the International Action Plan				
Underlying problems	Result	Action	Priority	Time scale	Organisations responsible
Possible lack of direction and coordination of the implementation and review process of the SAP	5.1 - Action Plan implementation driven and monitored by the Coordinator and Working Group	5.1.1 - Appoint a lead organisation and an international coordinator to manage the implementation of the SAP (all)	High	Immediate	European Commission, State conservation agencies, BirdLife International, NGOs.
		5.1.2 - Establish a SAP Working Group to oversee implementation of the Action Plan (all)	High	Immediate	European Commission, State conservation agencies, BirdLife International, NGOs.

	5.2 – International conventions involved in the conservation of the species and its habitats	5.2.1 – Promote international cooperation on the conservation of Audouin's Gull and its habitats under the framework of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds under the Bonn Convention (all).	Medium	Medium	AEWA, State conservation agencies, NGOs.
		5.2.2 – Inclusion of coastal areas and islands in the criteria of the Ramsar Convention (all).	Medium	Medium	Ramsar Convention, State conservation agencies, NGOs.
		5.2.3 – Designate all Mediterranean Audouin's Gull colonies with more than 30 individuals or 10 breeding pairs (IBA Criterion A1 - Globally Threatened Species) as SPA under the Barcelona Convention or equivalent (DZ, HR, CY, FR, EL, IT, MA, PT, ES, TN, TR).	Medium	Medium	UNEP/MAP, State conservation agencies, NGOs.
	5.3 - Achieve international cooperation and funding from bilateral organizations	5.3.1 – Promote bilateral agreements for establishing and managing protected areas, research and monitoring of Audouin's Gull (all).	High	Rolling	State conservation agencies, NGOs.
		5.3.2 – Provide assistance from International NGOs to national NGOs on carrying out projects for the conservation of the species and its habitats (all).	High	Rolling	BirdLife International, NGOs.
Lack of coordination at national level	5.4 – National Action Plans for the conservation of Audouin's Gull	5.4.1 – Produce National Action Plans with clear priorities aligned with the goals of this SAP (all).	High	Medium	State conservation agencies, NGOs.

Table 3.6 | Summary of actions for the implementation of the International Action Plan for Audouin's Gull, by country.

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
1. INCREASE BREEDING SUCCESS AND SURVIVAL RATES																
1.1 Prevent or invert overfishing in the feeding areas and at the colonies' surroundings																
1.1.1 To influence EU fisheries policies and regulations for the benefit of biodiversity conservation in the Mediterranean, namely the ones related with overfishing prevention		✓		✓	✓	✓		✓	✓							
1.1.2 To influence fisheries policies and regulations to prevent overfishing at the breeding grounds in the Mediterranean outside EU	✓		✓				✓			✓	✓					
1.1.3 To influence international fisheries policies and regulations to prevent overfishing at the wintering grounds							✓					✓	✓	✓	✓	✓
1.1.4 Fishing moratoria in a way that is compatible with the subsistence of the major breeding colonies		✓		✓	✓	✓		✓								
1.2 Prevent an abrupt effect of the EU discard ban																
1.2.1 Define and adopt proper management and adaptation strategies to avoid a sudden food shortage		✓	✓	✓	✓		✓	✓	✓							
1.3 Predation by native (e.g. foxes and badgers) and non-native fauna (e.g. cats, rats and dogs) is minimised, and where possible, eliminated																
1.3.1 Humane control or relocation of foxes, stray cats, badgers, and stray dogs is implemented to protect colonies		✓	✓	✓	✓			✓	✓		✓					

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
1.3.2 Humane rat control programmes are implemented when egg and/or nestling predation occurs on a scale that seriously threatens the viability of a colony		✓	✓	✓	✓			✓	✓		✓					
1.3.3 Provide artificial refuges to Audouin's Gull chicks to reduce predation risk		✓	✓	✓	✓			✓	✓		✓					
1.4 Predation by Yellow-legged Gulls is minimised, and where possible, eliminated																
1.4.1 Humane population control of Yellow-legged Gulls is undertaken where there is strong evidence that competition and predation are limiting factors for Audouin's Gull at the local level		✓	✓	✓	✓	✓		✓	✓		✓					
1.5 Prevent and reduce human disturbance																
1.5.1 Control of human access to colonies to prevent breeding failure and site abandonment		✓	✓	✓	✓	✓	✓	✓	✓		✓					
1.5.2 Regulation of trekking, boating, sea bathing, birdwatching or any other activity perceived to disrupt breeding gulls		✓	✓	✓	✓	✓	✓	✓	✓		✓					
1.6 Prevent chemical pollution of the sea and oil spills																
1.6.1 Enforce national and international legislation on chemical pollution and industrial treatment				✓	✓	✓		✓			✓					
1.6.2 Avoid or control chemical release from both offshore and land-based sources				✓	✓	✓		✓			✓					
1.6.3 Control the use of agricultural chemicals near breeding colonies				✓	✓	✓		✓			✓					

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
1.6.4 Establish a system of incentives for oil tanker companies which agree to avoid sensitive marine ecosystems				✓	✓	✓		✓			✓					
1.6.5 Enforcement of laws to prevent the cleaning of oil tankers outside areas especially designated for that purpose (EL, FR, IT, PT, TR).				✓	✓	✓		✓			✓					
1.7 Construction of windfarms in key Audouin's Gull sites must be avoided, and where this occurs, the impacts on this species are considered and minimised																
1.7.1 Audouin's Gull conservation needs must be fully taken account during spatial planning for coastal areas and EEZ		✓			✓	✓		✓	✓							
1.7.2. Subject all coastal and offshore windfarms to SEA/EIA		✓			✓	✓		✓	✓							
1.7.3 Develop year-round Audouin's Gull sensitivity maps at different spatial scales		✓			✓	✓		✓	✓							
1.8 Bycatch in commercial and recreational fisheries is minimised and possibly eliminated																
1.8.1 Develop and test seabird-friendly fishing gear suitable for Audouin's Gull		✓	✓	✓	✓	✓		✓	✓							
1.8.2 Deploy seabird-friendly fishing gear at key Audouin's Gull breeding sites as a mandatory requirement for commercial and recreational fisheries if and when such is available		✓	✓	✓	✓	✓			✓							
1.8.3 - Develop year-round Audouin's Gull sensitivity maps at different spatial scales (CY, ES, EL, FR, HR, PT, IT).		✓	✓	✓	✓	✓		✓	✓							

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
1.8.4 Define and adopt measures to mitigate the adverse effect of bycatch by recreational fishing, particularly close to colonies and in coastal concentration areas						✓										
1.9 Audouin's Gull and its habitats receive full protection through national and international legislation																
1.9.1 Designate all breeding colonies with more than 30 individuals or 10 breeding pairs (IBA Criterion A1 - Globally Threatened Species) as protected areas or implement alternative legal tools in order to achieve the full protection of the colonies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
1.9.2 Designate as protected areas the key foraging sites around the breeding colonies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
1.9.3 Seek protection for all regular wintering sites with more than 200 individuals							✓			✓		✓	✓	✓	✓	✓
1.9.4 Publish management plans for all protected areas	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
1.9.5 Promote temporary protection schemes on islands and archipelagos with high colony mobility, in a year by year base		✓		✓	✓	✓	✓			✓	✓					
1.10 Protocol for low-disturbance monitoring and research at the colonies																
1.10.1 Develop and agree on a protocol for low disturbance monitoring and research at the colonies, involving all teams performing research and management of the species	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
1.11 - Prevent egg-collecting at breeding sites																

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
1.11.1 Increase surveillance during the breeding period and enforcement of existing sanctions		✓								✓	✓					
2. MAINTAIN, CREATE OR RESTORE SAFE SITES FOR NESTING AND EVENTUAL EXPANSION OF THE BREEDING RANGE																
2.1 Prevent habitat alteration at all regular and traditional breeding sites																
2.1.1 Enforcement of the legal protection status of all sites already designated	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
2.1.2 Submit to SEA/EIA all proposed land-use changes that threaten occupied or traditional breeding sites	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
2.1.3 Maintain legal protection for deserted traditional colonies to secure the potential return of breeding individuals	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓					
2.2 National coastal strategies developed																
2.2.1 Develop and implement coastal strategies which ensure the sustainable planning and management of coastal areas, safeguarding all traditional and current colonies, as well as major roosting sites	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓					
3. CLOSE KNOWLEDGE GAPS																
3.1 - Research and monitoring work on priority issues are undertaken																
3.1.1 Monitor population size, breeding distribution and trends, with results made available through regular data reporting and dissemination in a common language	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
3.1.2 Determine the extent and location of discrete populations, and assess relationships among different breeding colonies through colour-ringing. Coordinate the scheme at international level	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
3.1.3 Identify the most important passage sites and wintering areas							✓					✓	✓	✓	✓	✓
3.1.4 Undertake research and establish monitoring on population dynamics, to identify 1) the factors that influence and regulate breeding success and survival, and 2) the patterns and mechanisms through which these factors act	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
3.1.5 Undertake comparative studies of breeding biology and colony-site selection in different habitats, focusing on understanding the mechanisms of site selection and evaluating breeding success across habitats. Establish site-selection preferences of young Audouin's Gulls born in atypical habitats for the species, such as saltmarshes	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
3.1.6 Determine the diet across different parts of the breeding range, taking into consideration inter-colony and inter-individual variability within colonies, age-related differences, and the influence of food abundance and availability at sea during different periods	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
3.1.7 Develop and initiate research projects that assess the effects of chemical pollution and oil spills	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.1.8 Develop and initiate research projects that assess the effects of fishing policies	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
3.1.9 Undertake studies to ascertain habitat requirements	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
3.1.10 Develop and initiate research projects that assess the effects of human disturbance on breeding failure and egg/chick mortality	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
3.1.11 Develop and initiate studies on population dynamics, feeding and habitat selection of the Yellow-legged Gull, to evaluate its impact on Audouin's Gull	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔					
3.1.12 Undertake studies and establish monitoring on the impact of predation by native and introduced species	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔					
3.1.13 Undertake studies and establish monitoring on the effect of fishing activities on breeding and wintering Audouin's Gulls, namely in terms of fish stock depletion, bycatch and interactions	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
3.1.14 - Undertake studies and establish monitoring on the effect of aquaculture activities on breeding and wintering Audouin's Gulls, namely in terms of perturbation, entanglement and interactions	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
3.1.15 Develop and initiate research projects that examine the impact of climate change factors on the population status of Audouin's Gull	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔
3.1.16 Undertake studies and establish monitoring to assess the scale of High Pathogenic Avian Influenza Virus and other diseases						✔		✔								
3.1.17 Develop and initiate research projects that examine the impact of colonisation of urban and other areas (e.g. rooftops of industrial areas or fishing harbours) for breeding on the nesting and foraging behaviours of Audouin's Gull							✔		✔							
4. ENHANCE PUBLIC AWARENESS AND COMMUNICATION																
4.1 Information about the species and its habitats is made available and awareness increased																
4.1.1 Increase awareness about Audouin's Gull among politicians and decision-makers	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔	✔

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
4.1.2 Inform the general public about the unfavourable conservation status and population trend of Audouin's Gull	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.3 Involve tourists and fishermen in preventing disturbance and damage to the species	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.4 Involve citizens in active participation in conservation activities	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
4.1.5 Prepare and distribute educational material	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.6 Use the media to increase awareness	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
4.1.7 To use Audouin's Gull as a flagship species	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5. ESTABLISH STRUCTURES FOR THE IMPLEMENTATION OF THE INTERNATIONAL ACTION PLAN																
5.1 Action Plan implementation driven and monitored by the Coordinator and Working Group																
5.1.1 Appoint a lead organisation and an international coordinator to manage the implementation of the SAP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.1.2 - Establish a SAP Working Group to oversee implementation of the Action Plan	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.2 International conventions involved in the conservation of the species and its habitats																
5.2.1 Promote international cooperation on the conservation of Audouin's Gull and its habitats under the framework of the Agreement on the Conservation of African-Eurasian Migratory Waterbirds under of the Bonn Convention	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

SAP MEASURES	Countries															
	Algeria (DZ)	Croatia (HR)	Cyprus (CY)	France (FR)	Greece (EL)	Italy (IT)	Morocco (MA)	Portugal (PT)	Spain (ES)	Tunisia (TN)	Türkiye (TR)	Gambia (GM)	Libya (LY)	Mauritania (MR)	Senegal (SN)	Egypt (EG)
5.2.2 Inclusion of coastal areas and island in the criteria of the Ramsar Convention	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.2.3 Designate all Mediterranean Audouin's Gull colonies with more than 30 individuals or 10 breeding pairs (IBA Criterion A1 - Globally Threatened Species) as SPA under the Barcelona Convention or equivalent	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					
5.3 Achieve international cooperation and funding from bilateral organizations																
5.3.1 Promote bilateral agreements for establishing and managing protected areas, research and monitoring of Audouin's Gull	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.3.2 Provide assistance from International NGOs to national NGOs on carrying out projects for the conservation of the species and it's habitats	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
5.4 National Action Plans for the conservation of Audouin's Gull																
5.4.1 Produce National Action Plans with clear priorities aligned with the goals of this SAP	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓

ANNEX 1. BIOLOGICAL ASSESSMENT

Distribution throughout the annual cycle

The Audouin's Gull, originally restricted to the Mediterranean, has expanded its breeding range to include the Atlantic coast (BirdLife International, 2024). It now breeds in several countries, including Algeria, Cyprus, Croatia, France, Greece, Italy, Morocco, Portugal, Spain, Tunisia, and Türkiye. The breeding season takes place between April and July, with variations depending on local environmental conditions and food availability. After hatching, the chicks remain in the nest for around 6 to 7 weeks until they are ready to fledge. The species is mostly migratory but some individuals exhibit resident patterns. After the breeding season the majority of the populations of the Mediterranean migrate southward (Oro & Martinez, 1994), spending the non-breeding season in the western and central Mediterranean, particularly in Algeria, Tunisia and Lybia, and along the North African coast in Morocco. For the populations that breed in and close to the Atlantic, wintering areas include the Atlantic coasts of West Africa, including Morocco, Mauritania, Senegal and Gambia (Pereira, et al., 2023; Oro & Martinez, 1994; BirdLife International, 2024; Ponti, et al., 2024). Juveniles tend to remain in the wintering grounds while adults and third-summers return to the breeding colonies (BirdLife International, 2020; Oro & Martinez, 1994). Some adult gulls show high site fidelity to breeding areas, typically returning to the same nesting area each year. A recent analysis of mark-resighting data from Central Mediterranean (Italy and France) identifies breeding "districts" (groups of colonies), and not colony sites, as the most informative spatial unit during the breeding season, hence useful for conservation and management planning of this species (Sacchi et al. in press).Movements are flexible in response to food availability and environmental pressures, and some may disperse to other colonies every year, generating marked fluctuations in breeding sites (Tavecchia, Pradel, Genovart, & Oro, 2007). **Dispersion to other colonies may also be facilitated by failed breeders, who appear to have larger prospecting ranges (Kralj, et al., 2023).**

Habitat Requirements

The characteristics of habitats used by Audouin's Gull vary significantly across regions and even within the same area over different years. These habitats range in altitude from near sea level to about 100 meters, with vegetation cover spanning from bare rocks to areas with up to 85% bush cover. The slope of nesting sites can also vary greatly, from flat surfaces to steep inclines as much as 90° (BirdLife International, 2024). Audouin's Gulls typically select remote coastal areas and islands that offer undisturbed environments for breeding. They prefer rocky or sandy islets with sparse vegetation where their ground nests can remain hidden from predators. These areas generally ensure limited human disturbance and proximity to food sources. With the collapse of some historical colonies, Audouin's Gulls have shown an ability to colonize new sites, including less traditional environments such as ports and urban areas. These sites, though suboptimal compared to natural habitats, are increasingly being used due an increase of predation and disturbance in traditional habitats (Martínez-Abraín & Jiménez, 2016).

The diet of Audouin's Gull consists mostly of epipelagic fish, but also on demersal and benthic species (Oro, et al., 1997; Matos, et al., 2018). While some prey items can be naturally caught, the species heavily relies on fishery discards (Ruiz, et al., 1996; Matos, et al., 2018), particularly from trawlers and purse seines (Bécares, et al., 2015). The diet can vary between colonies, mainly due to differences in local fishing pratices (Pedrocchi, et al., 2002).

When the preferable preys are not abundant, Audouin's Gulls can expand their dietary niche and adopt a more opportunistic feeding behaviour (Morera-Pujol, et al., 2018; Vilaplana, et al., 2024), foraging on alternative prey in terrestrial systems and along the coastal areas (Ruiz, et al., 1996). For example, in the Ebro Delta, Audouin's Gulls have shifted from being primarily pelagic foragers to more coastal feeders, exploiting the invasive North American Red Swamp Crayfish *Procambarus clarkia*, found in rice fields (Christel, et al., 2012), and even scavenging on refuse (Blanco & Marchamalo, 1999). Additionatly, they are known to consume aquatic and terrestrial invertebrates, small birds, and some plant material (Oro, et al., 1997; Matos, et al., 2018).

During the breeding season, Audouin's Gulls tend to forage along the coast near their breeding colonies, but also capable of undertaking longer foraging trips, with several hundred kilometres (Mañosa, Oro, & Ruiz, 2004). Their foraging behaviour varies between colonies, with some primarily active during daylight hours (Bécares, et al., 2015), while others prefer foraging at night (Matos, et al., 2018), with variations associated with the availability of food resources (Christel, et al., 2012). Their distribution at sea typically aligns with fishing activities, especially during purse-seining and trawling operations, though their nocturnal activity is more dispersed (Bécares, et al., 2015). In the Ebro Delta colony there is also a notable difference in foraging patterns during weekdays and weekends, with the at-sea foraging being more intense during weekdays, and foraging in terrestrial systems more intense during weekends, when fishing activity decreases (Bécares, et al., 2015). On the contrary, birds from Croatia don't seem to forage in association with purse seines, with more frequent long-distance movements (Jurinović, et al., 2019). In Greece, Audouin's Gulls also do not feed behind purse-seiners and trawlers, but mainly close to small scale fisheries and exhibit coastal foraging following very specific individual feeding trips (HOS, unpublished data).

Survival and productivity

There are few studies and data on Audouin's Gull demography. Adult annual survival was estimated at 0.83 using trait-based modelling and assuming a stable population (Bird, 2020). An adult survival of 0.95 was estimated for the period of rapidly increasing trend of Delta del Ebro population by the 1990s (Oro et al., 1999, Oro et al., 2004, Tavecchia et al., 2007).
The reproductive success of the Audouin's Gull is highly variable and can depend on a combination of ecological factors such as food availability, predation (Oro et al., 1999), human disturbance, habitat degradation, and climate change. Average breeding success, measured as the number of chicks fedged per nest, typically remains below 1. Historically, however, the Ebro Delta experienced much higher success rates (maximum of 2.01 in 1988) in the 1980s and 1990s during years of abundant food and low predation (Oro, et al., 1999; Oro & Villalta, 1992). In the last decade in some Mediterranean colonies, breeding success has shown significant fluctuations, with some years witnessing major declines in productivity, including instances of zero or almost zero fledged chicks (Jurinović & Engelen, 2022; D. Portolou, *pers. comm.*).

Population size and trend

Since the first population assessment in 1975 and the development of the SAP in 1996, the population of Audouin's Gull had grown significantly, from 1,000 pairs to approximately 15,000 pairs (Lambertini, 1996). It is believed the population peaked around 2007, with an estimated 25,000 breeding pairs, followed by a notable decline in subsequent years (BirdLife International, 2024).

The population of Audouin's Gull in the Ebro Delta, historically hosted the largest breeding colony of the species, until sharply declining around mid-2000's (BirdLife International, 2024). The reasons of collapse are unclear but thought to have been driven by a combination of factors, including reduced food availability, particularly a reduction in fishery discards (Calado, et al., 2021), and dispersal of experienced adults due to the presence of mammal predators (Payo-Payo, et al., 2018). The dispersion of this population seems to have contributed to an increase of the breeding colony located in south Portugal, now the biggest colony of the species, with more than 7.000 breeding pairs in 2024 (V. Paiva *pers comm*). The abandonment of breeding sites is associated to series of cumulative perturbations and settlement of new colonies as a result of density dependence (Fernández-Chacón, et al., 2013).

Table 1 | Size of the breeding population of Audouin's Gull.

Country	Number of breeding pairs	Number of colonies	Percentage of the global population	Year of the estimate
Algeria	75	3	0.4%	2023
Croatia	25-50	3	0.2%	2019-2023
Cyprus	10-21	2	0.1%	2019-2025
France	70	3	0.3%	2022
Greece*	150-200	7	1.0%	2021-2024
Italy	1097	17	5.4%	2024
Morocco	20	1	0.1%	2023
Portugal	7,292	2	35.9%	2024
Spain	11,071	20	54.4%	2022
Tunisia	200 - 300	5	1.5 %	2023
Türkiye	70-140	6	0.7%	2018
Total	20,080 – 20,336	62		

* not all regions surveyed

ANNEX 2. PROBLEM ANALYSIS

General overview

Audouin's Gull is currently classified as *Vulnerable* on the IUCN Red List, under criteria A4b, stating a rapid population reduction following the collapse of the largest breeding colony, as assessed in 2020 (BirdLife International, 2020). The species is also included in the Bonn Convention (Convention on the Conservation of Migratory Species of Wild Animals) in Appendix I and II; and Bern Convention (Convention on the Conservation of European Wildlife and Natural Habitats) in Appendix II, and protected under the EU Birds Directive (Directive 2009/147/EC).

The International Action Plan for Audouin's Gull (Lambertini, 1996) was published in 1996 and approved by the Ornis Committee. Despite the SAP not being revised since then, its implementation has been reviewed five times, in 2000 (Gallo-Orsi, 2001), 2004 (Nagy & Crockford, 2004), 2007 (Gallo-Orsi & Orhun, 2008), 2010 (Barov & Derhé, 2011) and 2024 (Oliveira et al., 2024).

For the most recent review, several meetings were organized by SPEA and BirdLife International with the following objectives: (1) to consolidate new information on the population status and conservation challenges faced by Audouin's Gull, (2) to assess the implementation of the current Species Action Plan (SAP), (3) to discuss potential updates to the plan aimed at securing the species' future, and (4) to establish a dedicated working group.

The assessment of problems underlying the current status of the global population of Audouin's Gull and the identification of threats and limiting factors for the species was based on information provided by species experts in questionnaires for the development of the Review of the Implementation of the previous SAP, and in presentations, opinions and discussions by national experts and national representatives during the Meeting SAP Audouin's Gull[1] and a session dedicated to the Evaluation of the Audouin's Gull SAP[2], as well as information available in published literature. Upon the last review of the SAP, a total of 13 threats/group of threats were identified. Key threats/limiting factors and link to the actions listed in the previous SAP are summarised below.

Changes in fishing practices

The reform of the European Union (EU) Common Fisheries Policy proposed a discard ban on species subject to catch limits and, in the Mediterranean Sea, also catches of species which are subject to minimum sizes (regulation (EU) No 1380/2013). While these measures aid to minimize bycatch, promote sustainable fishing practices, and support healthy fish stocks, they may have unintended effects by creating a food shortage for scavenging birds, such as Audouin's Gull (Bicknell et al., 2013).

Audouin's Gulls rely on discarded fish as a significant food source, and the sudden unavailability of this resource could impact their foraging success. In regions like the Ebro Delta, the lack of discards by trawling moratoria has reduced food availability during the breeding season, influenced emigration probabilities (Oro et al., 2004), and had negative effects on the breeding performance (Oro et al., 1997). In addition, the discard ban may also affect other species and

[1] Held online in September 2023

[2] Under the framework of the 3rd Mediterranean Syposium on Ecology and Conservation of Marine and Coastal Bird Species, held in Djerba, February 2024

increase competition and predation, posing an additional potential threat (Arcos, Oro, & Sol, 2001; Bécares et al., 2015).
Given these potential consequences, monitoring the ban's impact on seabird populations, particularly Audouin's Gull, is crucial. This approach could also guide fishery management policies to ensure the conservation of vulnerable species (Cama et al., 2013).

Relation with the previous SAP: in line with actions 3.4.2 (Fishing policies) and 3.4.7 (Monitor fishing activities for possible impact on breeding and wintering Audouin's Gulls)

Human disturbance

Some Audouin's Gull breeding areas overlap with popular tourist destinations, aligning with peak tourist seasons. This overlap brings increased human presence, which can disturb these colonial birds at breeding and foraging sites. Frequent human activity near breeding areas can increase adult birds' heart rate and decrease nest attendance (Bocelli, 2022), exposing eggs and chicks to predators and extreme weather conditions, increase chick dispersion from the nest, and increase the rate of aggressive behaviour (Burger, 1981).
Human activities at foraging sites, including boat traffic and coastal developments, further disrupt feeding behaviours. Such disturbances can force birds to abandon otherwise resource-rich areas, limiting their access to food.
Research activities can also significantly disturb seabird colonies, as regular handling of chicks often causes them to stray farther from nests, increasing their vulnerability to territorial aggression and cannibalism by neighbouring adults (Burger, 1981). Tagging and handling adults during breeding season can also be a cause of disturbance and breeding failure. Researchers should carefully weigh the benefits of handling against potential negative impacts on bird populations, such as reduced reproductive success and altered social dynamics (Burger, 1981).
Though gulls can habituate to consistent human presence, particularly in densely populated colonies where individuals are less likely to leave nests when disturbed (Martínez-Abraín, Oro, Conesa, & Jiménez, 2008), minimizing direct contact and establishing buffer zones around breeding and foraging sites can effectively reduce disturbance. Additionally, assessing the nature and type of human activity in relation to bird behaviour is useful, as responses can vary based on disturbance characteristics (Burger, 1981).

Relation with the previous SAP: in line with actions 2.2.1 (Prevent and reduce human disturbance) and 3.4.4 (Human disturbance)

Bycatch

Audouin's Gulls rely on fishery discards as a food source, which draws them to fishing vessels and increases their risk of bycatch. This threat varies across regions, posing particular concern for populations near high-intensity fishing areas.
In Greece, for instance, bycatch in demersal longlines affects around 2.5% of the local breeding population each year (Saravia Mullin, et al., 2012). Similarly, in Spain's Ebro Delta, artisanal bottom longlines cause bycatch in Audouin's Gulls, which impacted approximately 1.1% of the breeding population in the early 2000s (Belda & Sanchez, 2001; Laneri, et al., 2010).
Bycatch from recreational fishing, although less documented, also contributes to mortality. In Portugal, France, Spain, and Croatia, and more recently in Italy (N. Baccetti, M. Zenatello pers. comm.), Audouin's Gulls have been recorded as bycatch in recreational fisheries (Oliveira et al., 2024), with dead birds found **with recreational hooks used from the coastline in harbours and**

ports. In Catalonia, Spain, sport trolling accounted for higher bycatch rates of Audouin's Gull than longlines, indicating that recreational fisheries may significantly affect gull populations as well (Genovart, et al., 2017).
Efforts to manage bycatch should include both commercial and recreational fisheries to protect Audouin's Gull populations across their range.

Relation with the previous SAP: in line with actions 3.4.2 (Fishing policies) and 3.4.7 (Monitor fishing activities for possible impact on breeding and wintering Audouin's Gulls)

Offshore windfarms

As offshore wind energy projects will expand across the Mediterranean and European coastlines, they pose various risks to seabird populations that depend on coastal and marine habitats (Bray, et al., 2016).
Offshore wind turbines may affect birds by risk of collision, short-term habitat loss during construction, and long-term habitat loss due to disturbance by turbines and maintenance activities. For migratory species, wind farms may also create barriers along migration routes, which could force seabirds to alter their flight paths, increasing their energy expenditure and reducing foraging efficiency (Exo et al., 2003).
The mapping of seabird sensitivity revealed that Audouin's Gull was one of the species most vulnerable to marine wind farm expansion in Portugal (Guilherme, et al., 2023).
To mitigate these impacts on vulnerable species like Audouin's Gull, the creation of sensitivity mapping can guide wind farm planning by identifying areas of high ecological concern and helping optimize wind farm design and placement (Christel et al., 2013). Additionally, adaptive management strategies, including detailed monitoring during and post-construction, can aid in assessing the local impacts of wind energy projects and making adjustments to protect seabirds.

Relation with the previous SAP: new threat

Predation from mammals

Interactions with other species can significantly affect Audouin's Gulls, particularly during the breeding season, through competition, predation, and aggressive behaviour from other birds and mammalian predators. Mammalian predators can be a threat to Audouin's Gull colonies, when eggs and chicks are vulnerable. Occasional intrusions by these predators can reduce breeding success and disrupt colony stability, often leading to the dispersal of adult gulls to other areas (Oro, Pradel, & Lebreton, 1999; Payo-Payo, et al., 2017; Payo-Payo, et al., 2018).
The main mammalian threats include rats (*Rattus* spp.), foxes (*Vulpes vulpes*), and feral cats (*Felis catus*), which can prey on eggs and chicks (Gallo-Orsi, 2003). Rats typically scavenge on broken eggs or eggs with softened shells that were abandoned, they generally do not pose a significant threat to intact nests actively guarded by adult gulls (Prieto et al., 2023). Foxes and feral cats, in contrast, are capable of not only prey directly on eggs and chicks but also cause stress and disturbance in colonies, that can lead to a social response of dispersal (Oro et al., 2023).

Relation with SAP: in line with actions 2.2.2 (Control competitors and predators and assess effectiveness of control measures), 3.4.6 (Predators)

Negative interactions with Yellow-legged Gulls

Yellow-legged Gull (*Larus michahellis*) is a primary competitor, which shares similar ecological niches and frequently overlaps with breeding sites with Audouin's Gull. While foraging at fishing vessels, Yellow-legged Gulls exert pressure over Audouin's Gulls by kleptoparasitism and agonistic interactions causing Audouin's Gulls to shift to different fishing gear types to avoid competition (Arcos, Oro, & Sol, 2001).

In breeding colonies, common interactions between the two species include aerial kleptoparasitism with Yellow-legged Gulls attacking Audouin's Gulls to induce regurgitation, as well as intrusions to prey on eggs and chicks. The frequency of occurrence of these events seem to exacerbate when food availability is lower, or when some individuals of Yellow-legged Gulls specialize as predators of Audouin's Gulls (Martínez-Abraín, et al., 2003). In large and dense colonies of Audouin's Gulls in Spain and Portugal most interactions are of aerial strikes and kleptoparasitism, with relatively few instances of direct predation on eggs and chicks (Oro & Martinez-Vilalta, 1994; Portela, 2022). The low number of interactions do not seem to represent a threat to the dynamics of these populations (Martínez-Abraín, et al., 2003; Portela, 2022), but in smaller colonies, where Audouin's Gulls are outnumbered, these pressures may pose a greater threat to their reproductive success, including through direct predation of eggs and young (Paracuellos & Nevado, 2010; Jurinović & Engelen, 2022).

Relation with SAP: in line with actions 2.2.2 (Control competitors and predators and assess effectiveness of control measures), 3.4.5 (Competitors) and 3.4.6 (Predators)

Depletion of food resources

Overfishing and fluctuations in small pelagic fish stocks directly impact the availability of prey for Audouin's Gulls, affecting both their survival and breeding success. Non-compliance with scientific recommendations on fishing quotas, especially in high-pressure fishing areas with slow stock recovery, causes declines in local fish populations. This depletion reduces the resilience of marine ecosystems and compromises the food web, especially impacting seabirds like the Audouin's Gull, which rely on these fish stocks during breeding and chick-rearing seasons.

In addition to overfishing, environmental changes such as shifts in sea temperature and altered fish distributions further strain prey availability. These combined pressures diminish marine biodiversity and disrupt predator-prey dynamics, forcing seabirds to adapt by increasing their foraging range or turning to suboptimal food sources, which can ultimately lower breeding success and colony stability.

Relation with the previous SAP: in line with action 3.4.7 (Monitor fishing activities for possible impact on breeding and wintering Audouin's Gulls)

High Pathogenic Avian Influenza Virus and other diseases

High Pathogenic Avian Influenza Virus (HPAIV) has led to the death of many infected seabirds with huge losses at their breeding colonies (Knief, et al., 2024), and can potentially affect Audouin's Gulls, especially in dense breeding colonies where transmission is more likely. Because Audouin's Gulls migrate long distances, they have the potential to spread highly pathogenic avian influenza virus (HPAIV) across regions, particularly if exposed while breeding or foraging in affected areas.

HPAIV was first detected in two Audouin's Gulls in Portugal in July 2024 (European Food Safety Authority et al., 2024). One of these cases occurred near a densely populated breeding site, however, monitoring efforts in this colony have not shown any unusual mortality rates to date. Nonetheless, continued surveillance is essential, especially in upcoming breeding seasons, to detect any potential spread or increase in mortality that could affect colony stability.
Additional other relatively frequent diseases in larids can have significant impact on Audouin's Gulls like salmonellosis, aspergillosis, avian cholera, Newcastle disease, ornithosis, and others (Hubálek, 2021).

Relation with the previous SAP: new threat

Climate change

Climate change, through rising sea temperatures, can contribute to declines in prey species of essential to Audouin's Gull, potentially leading to food shortages (Häkkinen et al., 2023). In addition, rising sea levels threaten low-lying coastal nesting and roosting sites, increasing the risk of habitat loss for colonies on small islands and sandy shores.
An increase in the frequency of extreme weather events could affect breeding populations and breeding habitat, and create unfavourable foraging conditions (Daunt & Mitchell, 2013). More severe storms at breeding sites can decrease breeding success and cause birds to shift to other nest locations (Bonter et al., 2014). Stronger winds also increase the energetic demands of foraging, potentially reducing the efficiency of food gathering (Häkkinen et al., 2023).
Heatwaves can also be detrimental, as intense summer heat can lead to heat stress, resulting in higher egg and chick mortality, especially if natural vegetation in the breeding ground is sparse or it does not provide enough shade (Häkkinen et al., 2023).
Climate change can also affect bioaccumulation rates for contaminants in marine food webs by altering their transport, persistence, exposure (Alava, Cheung, Ross, & Sumaila, 2017).

Relation with the previous SAP: new threat

Chemical pollution, oil spills and plastic pollution

Marine pollution poses several risks to Audouin's Gull, impacting its health, reproduction, and survival in contaminated waters. Persistent pollutants such as mercury, lead, and polychlorinated biphenyls (PCBs) bioaccumulate within marine food webs and are ingested by gulls through their prey, potentially causing toxicity (Borgå et al., 2001; Vicente et al., 2015). These metals and persistent organic pollutants (POPs) can disrupt immune function, reproductive hormones, and chick development, making individuals more prone to disease and reducing breeding success (Grace, Duran, Ottinger, & Maness, 2024). Although studies on Audouin's Gulls indicate the presence of metals, PCBs, and POPs, observed concentrations have generally not reached levels associated with severe toxic hazards (Goutner, Albanis, Konstantinou, & Papakonstantinou, 2001; Morales, et al., 2012).
Plastic pollution is another growing threat, as gulls may ingest plastic debris while feeding. Ingested plastic can cause blockages, internal injuries (Roman, Hardesty, Hindell, & Wilcox, 2019), and reduced nutrient absorption. Furthermore, plastic-associated compounds can have adverse effects on gulls, particularly on neurofunction, immunity, oxidative balance, and reproductive health (Veríssimo, et al., 2024). Although high levels of some compounds have been identified in Audouin's Gulls in Portuguese breeding colonies, no significant impacts on physiological parameters were observed in these populations (Veríssimo, et al., 2024).

Accidental oil spill from shipping transport can pose immediate and severe risks, often resulting in high mortality among seabirds within days of exposure, while survivors suffer long-term chronic effects from ingesting oil while preening or feeding (Troisi, Barton, & Bexton, 2016). Audouin's Gulls foraging or roosting near spill sites are highly vulnerable, and were classified with high vulnerability to oils spills in Mauritania during the wintering season (Camphuysen, 2022). Although less understandable, **per- and polyfluoroalkyl substances (PFAS) might also pose a threat to biodiversity, namely Audouin's Gull (Vicente et al., 2025).**

Relation with the previous SAP: in line with actions 1.4 (Prevent chemical pollution of the sea and oil spills) and 3.4.1 (Chemical pollution and oil spills)

Habitat alterations at the breeding sites

Coastal development, habitat fragmentation, and land-use changes significantly impact Audouin's Gull by reducing the availability and quality of suitable nesting areas. Coastal development for tourism and infrastructure can displace nesting colonies or limit access to historical breeding grounds, diminishing habitat quality. The expansion of urbanized infrastructure close to shorelines often affects key sites by increasing human disturbance and reducing natural foraging grounds.

Although many Audouin's Gull colonies now reside in protected areas, and thus the threat of development of urbanized infrastructure and land-use should be minimal, careful management is crucial to prevent habitat degradation. This is especially pertinent for eco-tourism facilities, which, despite their focus on conservation, can inadvertently lead to increased disturbance in sensitive areas.

Relation with the previous SAP: in line with action 2.1.2 (Prevent habitat alteration at all regular breeding sites)

Colonisation of degraded areas

The colonization of degraded and urbanized areas by Audouin's Gull, recorded mainly in Spain, presents complex impacts on the species. In some cases, urban areas provide alternative nesting sites especially where traditional coastal habitats are limited, highly disturbed, or suffer from elevated predation rates (Martínez-Abraín & Jiménez, 2016).

However, it can also expose gulls to frequent human disturbance and conflict, increased exposure to pollutants, and elevated risks of disease transmission. Additionally, food sources in these areas, often from urban waste, can have poor nutritional value and compromise individual's health (Vilaplana, et al., 2024).

Relation with the previous SAP: new threat

Egg-collection

Despite egg-collection is likely to be less frequent nowadays than recorded in the past, some populations are still under this pressure. Most of it is related with countries with low-income

economies. Direct human impact such as the killing and/or collecting of eggs and chicks is mostly kept by local people and fishermen.

Relation with the previous SAP: in line with action 2.2.3 (Prevent egg-collecting)

ANNEX 3. CONSERVATION STATUS BY COUNTRY

Algeria

The first colonies of Audouin's Gull in Algeria were discovered in the 1970s on the west coast of Orán (Lambertini, 1996). The breeding population fluctuated over the years, with an estimated 600 pairs in the 1990s (Lambertini, 1996), dropping to zero pairs by 2008, and a slow recovery ever since, reaching approximately 75 pairs by 2023 (R. Moulai, *pers. comm.*). Currently, breeding populations are restricted to Habibas Island, with non-breeding adults observed in Mafragh, Salines, and La Macta (Samraoui, Alfarhan, Al-Rasheid, & Samraoui, 2011).

Audouin's Gull is protected under Algerian law by Executive Decree No. 12-235 of 3 Rajab 1433, issued on 24 May 2012, which designates it among the country's protected non-domestic animal species. Additionally, the breeding habitat on the Habibas Islands falls within the protected zone of the Habibas Islands Marine Reserve.

Negative interactions with Yellow-legged Gulls seem to be one of the main threats (Samraoui et a., 2011; R. Moulai, *pers. comm.*). Rat control operations have been implemented through collaboration between the Algerian National Coastal Commission (CNL) and the PIM Initiative, aimed at protecting small Mediterranean islands.

Conservation priorities for the Audouin's Gull in Algeria should focus on establishing a regular monitoring program and ensuring the continued protection and management of breeding sites.

Croatia

The Croatian breeding population was first discovered in 1997 with 6-7 pairs (Rubinič & Vrezec, 2000). Between 2000 and 2006 censuses in the Lastovo, Korčula, Pelješac and Mljet archipelagos estimated a population at 56-69 pairs (Jurinović & Engelen, 2022). Currently the population is breeding in 3 Special Protection Areas (SPAs), which hold around 25 to 50 breeding pairs (D. Engelen, *pers. comm.*). Currently the majority of breeding pairs breed in the Nature Park Lastovo Islands, with the locations of colonies changing interannually in the archipelago (Jurinović & Engelen, 2022). The species is listed as an endangered breeding species according to The Red Data Book of Birds of Croatia (Tutiš, et al., 2013).

Competition, and predation of eggs and chicks by Yellow-legged Gulls seem to be a reason for low breeding performance (Jurinović & Engelen, 2022). Under the LIFE Artina project (2018-2023) control measures were implemented to improve the breeding success of Audouin's Gull , with egg culling of Yellow-legged Gulls, and permanent removal of rats from the islets of Smokvica, Srednji and Gornji Vlašnik in the Lastovo archipelago (Jurinović & Engelen, 2022). The project also designated several new marine IBAs and proposed to expand the borders of SPA Lastovsko otočje to include the main foraging and roosting area for Audouin's Gull, based on the movements of 25 adult individuals equipped with GPS-tags (Zec, et al., 2023).

Cyprus

The first records of Audouin's Gull in the area date back to 1960, when only a few breeding pairs were observed (Lambertini, 1996). Currently, breeding sites are located in the north-eastern part of Cyprus, specifically at Kasteletta, Kleidhes Islands in northern Cyprus. A former breeding area, on Zinaritou Island, is believed to have been abandoned due to increased rat predation (M.

Hellicar, *pers. comm.*). Since 2007 annual nest counts have been conducted, with fluctuation on the number of breeding pairs (Charalambidou & Gücel, 2008; Hellicar, 2016), revealing fluctuations in breeding pair numbers, which in recent years have averaged around 13 pairs.

All nesting sites are within the Karpasia (Karpaz) Peninsula, which is a designated protected area and has a dedicated management plan. Access to the Kleidhes Islands requires a special permit from the authorities. During the non-breeding season, known locations for Audouin's Gull, include sites within the Natura 2000 network, such as Larnaca Salt Lakes, Cape Greco, and Ayia Thekla, as well as other protected areas, especially Alakati (Alagadi), while other sites inclduing Klapsides (Glabsides) headland in Famagusta and islets, fishing shelters and coastal rocks along the north coast are regularly used.

Since 2017, 39 chicks have been coloured-ringed prior to fledging. Re-sightings have all been of third-year birds, away from the colony, between Alakati (Alagadi) on the central north coast and Paralimni on the southeast coast. There have been no resightings beyond Cyprus, but it is assumed that juveniles disperse from the island until their third year, as per other colonies. This is supported by new and ongoing tracking data as two fledgings made pelagic crossings from Cyprus to Türkiye and Egypt (KUŞKOR unpublished data).

Regulations around fisheries near the breeding sites prohibit fishing from the land with rods, and a 200-meter exclusion zone around the islands is designated to protect the birds. However, enforcement of this exclusion zone has been limited (M. Hellicar, *pers. comm.*). Artisanal fisheries remain common in the region (Palmer, et al., 2024), with Audouin's Gulls often observed feeding on discards from fishing boats, though no bycatch incidents have been recorded by the established on-board observer program.

Significant threats to the species may include interactions with Yellow-legged Gull, Long-legged Buzzards and rats (Snape, at al., 2017). Rat control measures are ongoing on Zinaritou Island, and efforts are being made to attract Audouin's Gull back to Zinaritou, away from the population of Yellow-legged Gulls on Kasteletta. Additionally, the proximity of the Kleidhes Islands to busy shipping lanes, including vessels from the Levant region and the Suez Canal, poses a considerable risk of pollution and potential oil spills, which could have severe consequences for the colonies.

Egypt

Recorded mainly as vagrant. Information from telemetry of breeding birds in Greece, shows that wintering birds forage in coastal wetlands of western Egypt (HOS, unpublished data). Telemetry from Cyprus shows post-fledging migration of juveniles to the Nile Delta coast (tracking ongoing; KUŞKOR unpublished data). No other info.

France

Audouin's Gull has been breeding in Corsica since the 19th century (Lambertini, 1996). Currently, there are five colonies in the region, all designated as SPA and protected areas. The largest and most significant breeding colony is now located at Aspretto/Ajaccio (Recorbet et al., 2011), which accounts for 80 to 95% of the French breeding population (Fleuriau & Recorbet, 2022) because historical colony of Cap Corse (Iles Finocchiarola et Côte Nord) experienced significant decline in the 1990s due to the Yellow-legged Gulls. Now, other sites, where breeding occurs irregularly or occasionally, includes Iles Finocchiarola et Côte Nord, Iles Lavezzi Bouches de Bonifacio, Iles Cerbicale, and Golfe de Porto et presqu'île de Scandola. Additionally,

since 2020 one breeding pair has also been recorded in the Atlantic southwest coast at Bassin d'Arcachon et banc d'Arguin.

Annual censuses have been conducted since 1994, with intensive monitoring at Aspretto/Ajaccio and Îles Finocchiarola et Côte Nord, and lighter surveillance at other locations to verify colony presence. The LIFE+ ENVOLL program (2013-2018) facilitated surveys at potential breeding sites across Corsica. Since 2000, a colour ringing scheme has been implemented at Aspretto/Ajaccio, and between 2014-2016, several adults were tagged with GPS/GSM devices to study foraging patterns (Faggio et al. 2023).

Breeding areas are under surveillance and access control measures. At Aspretto/Ajaccio, the Yellow-legged Gull population is managed by destroying nests and eggs and using scaring shots to deter breeding (Fleuriau & Recorbet, 2022) and, since 2024, nest of Hooded crow (*Corvus cornix*). Incidental mortality from recreational fishing remains a significant threat for birds of the colony of Aspretto/Ajaccio (Fleuriau & Recorbet, 2022). Projects such as LIFE Defense Natura2MIL (2012-2016) and LIFE ENVOLL (2013-2018), enhanced public awareness, restricted human access, and improved breeding site infrastructure by reinforcing the jetty to expand nesting areas (Fleuriau & Recorbet, 2022).

Gambia

Recorded as winter and migrant. No other info available

Greece

In Greece, the species was first recorded breeding in 1894 and has always been sparse (Handrinos & Akriotis 1997). Conducting regular censuses of breeding populations is challenging due to the vast number of islands and islets suitable for breeding and insufficient funding. Historically, two national censuses have taken place: the first between 1997-1999 (LIFE96 NAT/GR/003221), surveying 92 areas, of which 25 were occupied, estimating 750-900 breeding pairs. The second census, in 2010 (LIFE07 NAT/GR/00285), covered 91 areas, finding 18 occupied with 350-500 pairs (Fric, et al. 2012). This revealed a decline of 28-33% and a contraction towards the southeastern Aegean.

Recently, under the EU Marine Strategy Framework Directive (2021-23), surveys were conducted in the 24 most critical regions for the species, with colonies found in only seven sites, estimating 130 breeding pairs (Kastritis, et al. 2023). Comparing these to the previous censuses, this indicates a 59% population decline and the disappearance of significant breeding colonies. During Article 12 Reporting 150-200 pairs and approximately 12-14 colonies were estimated with a -65% decreasing trend (2013-2023) (Kastritis, et al. 2025). In the recent Red Data List for Greece, the Audouin's Gull was assessed as Endangered (EN) (Portolou, 2024). The species predominantly breeds on uninhabited islets, with colony sizes decreasing (maximum 40 pairs), clutch size dropping from 2.25 eggs/nest to 1.96, and productivity plummeting from 0.47 to nearly zero fledglings per nest.

The species prefers coastal habitats and usually feeds along the coast. The diet consists mostly of epipelagic fish, *Boops boops, Spicara* sp., *Chromis chromis, Sardina pilchardus, Mugil* sp. but also species probably originating from discards, such as *Trachurus* sp. Fish comprise more than 50% of its prey. Feeding from fish-farms and from discards of small-scale fisheries (nets and longlines) has also been recorded.

All Audouin's Gull colonies in Greece (past and present) have been identified as marine IBAs (32 mIBAs) and 85% are designated as SPAs, while only the Northern Sporades colony has an operational management plan. Other SPAs are expected to receive management plans through the Special Environmental Studies procedure initiated but delayed by the Ministry of Environment. Conservation measures have been implemented in SPAs hosting vital colonies, mainly through LIFE projects (LIFE96 NAT/GR/003221 and LIFE07 NAT/GR/000285. At-sea foraging areas will be identified as Important Bird Areas through telemetry under LIFE22 NAT/EL/LIFE MareNatura/101113792 (2023-2028). However, wintering sites are still largely undocumented at the national level, with known locations restricted to some North African wetlands based until now on ringing data. New telemetry data suggests that most adults overwinter in Libya, Tunisia and Egypt, foraging in coastal lagoons and coastal waters from October till March (HOS, unpublished data).

Since most colonies are on uninhabited islets, human disturbance is generally low. However, activities such as livestock grazing, fishing, and herb collection can disturb colonies, especially during early incubation. Recreational boat traffic has increased, mainly post-breeding season (July-August). Rat eradication has been completed on ten breeding islets encompassing 245 hectares through five LIFE projects (LIFE03 NAT/GR/000091, LIFE07 NAT/GR/000285, LIFE09 NAT/GR/000323, LIFE10 NAT/GR/000637, and LIFE13 NAT/GR/000909).

Italy

Audouin's Gull breeds in six Italian regions: Sardinia, Tuscany, Latium, Apulia, Campania, and Sicily. Annual national breeding censuses are conducted using a combination of boat surveys, land-based observations, and drone monitoring of islands and wetlands. Following the adoption of Marine Strategy protocols, the species' abundance and distribution serve as indicators for assessing progress toward achieving Good Environmental Status (GES) of marine waters.

Overall, the Italian breeding population is considered stable, though some fluctuations have been observed (Amadesi, et al., 2023), including declines and increases in certain colonies in recent years (Liuzzi et al., 2023). Since the mid to late 2000s, there has been a gradual southeast shift in colony distribution, with an increasing number of breeding pairs establishing outside the species' historical range (Amadesi, et al., 2023). A colour-banding programme has been in place since 1997, and GPS tracking data have provided valuable insights into foraging ranges, migratory pathways, and wintering locations. The wintering population has shown moderate growth since 2003, with a significant increase over the past decade.

The species and its key breeding sites benefit from national legal protections and the designation of SPAs at sea, which cover some of the identified foraging and migration areas. During the breeding season, authorities restrict human and boat access to colonies, especially during the touristic season. On Pianosa Island in Tuscany, measures have been implemented to control and remove feral cats to reduce predation. Additionally, since 2002, oil tanker transit through the strait between Sardinia and Corsica has been banned as part of pollution prevention efforts. Various regulations, including these tanker restrictions, have been incorporated into the management plans for the Natura 2000 site at La Maddalena in Sardinia, enhancing the protection of important seabird breeding colonies.

Lebanon

A small Audouin's Gull breeding colony of approximately 10 pairs was documented historically in the 19th century. However, there have been no confirmed breeding records for at least the past 40 years. In recent times, only a few individual sightings have been reported, categorizing Audouin's Gull as a rare passage migrant in the region (Ramadan-Jaradi, Itani et al., 2020).

Libya

Libyan wetlands are used by Audouin's Gull during the wintering season. Systematic winter censuses of waterbirds in Libya, initiated in 2005, have been conducted annually each January as part of the International Waterbirds Census (IWC) (Etayeb, et al., 2023). Between 2005 and 2010, the counts averaged 469 individuals, with numbers ranging from a minimum of 272 to a maximum of 670 birds (EGA - RAC/SPA, 2012). However, fluctuations in annual totals are notable due to variations in weather conditions and the time of day, which affect the presence of gulls in coastal wetlands at both local and national levels (EGA - RAC/SPA, 2012).

Observations of colour-ringed individuals indicate that these wintering gulls mainly originate from breeding colonies in the eastern Mediterranean, including Greek islands, the Italian Ionian coast, and Türkiye (EGA - RAC/SPA, 2012). Several adult individuals tagged on Croatian and Greek colonies also spend their winters in Libya (D. Engelen, pers. comm.; HOS, unpublished data).

More recent surveys have documented a significant decline, with only 21 individuals recorded during the 2022 census (Etayeb, et al., 2023). Of the monitored wetlands, only Farwa Lagoon is designated as an Important Bird Area (IBA) and marine protected area, while Ain Alghazala has also been declared a marine protected area (Etayeb, et al., 2023).

Mauritania

Audouin's Gull is a common winter and migrant in Mauritania. Large flocks, sometimes numbering over 1,000 individuals, are often observed, particularly from October to December (Camphuysen, 2022a; Camphuysen, 2022b). Observations of colour-ringed individuals indicate that the wintering gulls mainly originate from breeding colonies in Spain, Portugal, and Italy (Camphuysen et al., 2013).

Key roosting sites include Cap Blanc, which is recognized as an Important Bird Area (IBA), as well as the fishing harbours at Nouadhibou and near Nouakchott (Camphuysen, 2022a). Despite high counts at these coastal roosts, Audouin's Gulls are rarely seen at sea during daylight hours. (Camphuysen, 2022a). When observed at sea, they are often associated with fishing vessels, suggesting a reliance on human fishing activities for food (Camphuysen et al., 2013).

Morocco

Audouin's Gull utilizes the Moroccan coast both for breeding and wintering, spanning the areas between the Mediterranean for breeding and the Atlantic for wintering. Monitoring efforts are more consistent for the wintering populations, but data collection remains incomplete for breeding numbers, and specific estimates are currently unavailable.

Over the past decade, the species established breeding colonies along small coastal stretches, such as in Al Hoceima National Park, though some sites were later abandoned. Birds then appeared to relocate to small islands off the coast near Ajdir. Breeding colonies experience anthropogenic and interspecific pressures, particularly from Yellow-legged Gulls, which predate on eggs and chicks and compete for nesting sites (M. El Andaloussi, pers. comm.).

Human disturbance can also be a significant threat. The fledging period coincides with peak tourist activity, which disrupts young gulls and their habitat.

The fledging period coincides with the summer period and the full activity of tourism activity (Jet Skis) which are a major disturbance for the fledged young. Moreover, an increase in artisanal fishing capacity along the central Mediterranean coast, particularly in the Al Hoceima area, has heightened competition for small fish species that are crucial to the gulls' diet.

Morocco is one of the most important countries for the wintering of the species. Moroccan sites consistently receive over a third of, and in some years up to a half, of the global population (Moroccan Mid-Winter Bird Count data). A recent assessment of the Important Bird Areas (IBA) of Morocco show that the Audouin's Gull triggered the IBA status for 12 sites (alone or in combination with other species). Among these sites, 8 regularly hosted large wintering populations ranging between 1 and 11% of the species' global population (GREPOM/BirdLife Morocco 2025).

Portugal

The colonisation of the species in the country begun in 2001, with 12 breeding pairs, in saltpans in the Algarve region near the border with Spain. Regular monitoring of this population in 2005, revealed no breeding success, given the intense predation of eggs and chicks by feral dogs (Leal & Lecoq, 2005). Colour ring sightings of the breeding population revealed individuals ringed from 10 different Spanish colonies (Leal & Lecoq, 2005).

The first breeding attempt in Barreta/Deserta island, in Ria Formosa Special Protection Area, dates from 2008, with a first census in 2009 with 300 breeding pairs (Moniz, 2015). An annual census of the breeding population was established from 2014 onwards, revealing overall an annual growth of 10%, reaching to 7292 breeding pairs in 2024. Currently the breeding population has expanded, and is now also present in the neighbour Culatra Island. A breeding pair feeding nestlings was confirmed in 2024 in Sado Estuary, in the west coast. Breeding might also be confirmed in other sites along this coast in the future, given evidence of birds with breeding behaviour.

Under LIFE Ilhas Barreira project (2019-2024), numerous conservation actions have been implemented in Audouin's Gull breeding areas. These actions include, control of rats, the removal of feral cats, and measures to reduce human disturbance. The project also facilitated various studies, focusing on spatial and dietary ecology, chemical and plastic pollution assessments, and the impacts of Yellow-legged Gulls. Following the successful removal of feral cats from Barreta island, and the minimal predation by Yellow-legged Gulls, primary predation events now result from fox incursions and birds of prey.

Population expansion to additional breeding sites, particularly near human populations, poses challenges for Audouin's Gull, as it increases exposure to a greater presence of predators.

Senegal

Recorded as winter and migrant. No other info available.

Spain

Spain has historically hosted the majority of Audouin's Gull breeding populations, which accounted for over 90% of the global population during the 1990s. Although the percentage has now decreased to around 60%, Spain remains with critical breeding grounds, despite significant declines in population numbers beginning around the mid-2000s. Potential causes are relative to a combination of factors, including reduced food availability, particularly a reduction in fishery discards (Calado, et al., 2021), and dispersal of experienced adults due to the presence of mammal predators in the colony (Payo-Payo, et al., 2018).

Historically vital colonies included the Ebro Delta, Chafarinas Islands, Columbretes Islands, and the Balearic Islands. Today, the breeding distribution is spread across five main regions, Catalunya, Valencia, Baleares, Murcia, and Andalucía, as well as some areas along the North African coast. The largest current colonies are found in Valencia, in Port Castelló and in Torrevieja saltpans, and in the region of Catalunia in the Ebro Delta, and in Port de Barcelona.

Many traditional breeding sites are designated as Special Protection Areas, with several colonies also benefiting from additional conservation designations. However, new colonies in urban or industrial zones (such as ports and rooftops) present challenges for implementing comprehensive protection measures. Some breeding sites have strict access controls, allowing only scientific or management activities. Conservation efforts are supported by regional action plans, with Catalonia having a dedicated plan for the species, and Valencia and the Balearic Islands incorporating seabird protection in broader strategies.

Annual monitoring is conducted across most regions, largely by regional authorities, although gaps remain, particularly in the Balearic Islands. Spain has played a significant role in research and conservation, maintaining a long-standing colour-ringing program for over 30 years and conducting demographic studies across multiple colonies, addressing various ecological and conservation topics.

Tunisia

Audouin's Gull breeds in Tunisia primarily at two main locations: the La Galite Archipelago and the Zembra & Zembretta Archipelago. Additionally, smaller breeding populations are found on the Cani Islets, which support around 100 breeding pairs, Guettya Bahria Jerba with 3 to 18 pairs, and Fratelli Islets, where breeding occurs sporadically. The coasts of the island of Djerba welcome each year up to 370 individuals during the autumn migration, which highlights the importance of the area not only for nesting, but also as a migratory stopover. Several adult individuals tagged on Greek colonies spend their winters in Tunisian coastal wetlands (HOS, unpublished data).

The La Galite and Zembra & Zembretta Archipelagos are designated as protected areas under national legislation.

The Agence de Protection et d'Aménagement du Littoral (APAL), along with local NGOs, coordinates monitoring at the main breeding sites, while the AAO/BirdLife in Tunisia conducts

wintering bird surveys through the International Waterbirds Census (IWC). Nationally, Audouin's Gull is classified as endangered on the National Red List of Birds and is protected under various conservation frameworks, including national parks, marine protected areas, and legislative acts like the Forestry Code and specific annual orders that regulate hunting. During the breeding season, access to these critical sites is restricted, primarily reserved for research purposes, though violations can occur.

Many important wintering habitats, such as the Korba lagoon, have inadequate protection, often limited to prohibitions like hunting bans under annual decrees or general designations like Ramsar sites or coastal protected areas. These designations fall short in offering comprehensive conservation measures for the species.

Key threats identified for Audouin's Gull in the National Red List of Birds, include bycatch in fisheries and predation from invasive species such as rats, gulls, and snakes. Predator control efforts, such as rat eradication, are underway, particularly in the Zembra & Zembretta Archipelago, where they target invasive species that threaten other vulnerable seabirds, like the Yelkouan Shearwater.

Türkiye

A total of six breeding sites for Audouin's Gull have been identified in Türkiye with the estimated breeding population ranging from 70 to 140 pairs. Notably, a new colony of 35 breeding pairs was discovered in 2018 on Gökçeada (Imbros) Island (Onmuş & Gönülal, 2019). Long-term population trends remain uncertain, as comprehensive ringing and consistent monitoring studies are lacking along the Turkish coast. However, a single colony located on the eastern Mediterranean coast has experienced a dramatic decline of approximately 65–80% over the past five decades (Özkan & Yapan, 2024).

Most breeding and wintering sites of Audouin's Gull in Türkiye are located within Important Bird Areas (IBA), Key Biodiversity Areas (KBA), and Special Environmental Protection Areas. Despite this, the precise extent of wintering areas remains partially uncharted. Known wintering sites include Göksu Delta, Milas Airport, Ayvalık Pan, and Beymelek Lagoon, all within protected zones (Yaylalı, et al., 2023).

Conservation priorities for Audouin's Gulls in Türkiye should emphasize consistent monitoring of breeding populations, evaluating the impact of invasive predators, and assessing human disturbances, and implement targeted measures to minimize and manage human access during critical breeding periods.

ANNEX 4. REFERENCES

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