Audouin's Gull Larus audouinii

Background

The International Action Plan (Lambertini, 1996) for Audouin's gull was developed and adopted in 1996, approved by the Ornis Committee and endorsed by the Bern and Bonn Conventions.

The action plan has not been revised. Its implementation has been reviewed twice – in 2000 (Gallo-Orsi, 2001) and 2004 (Nagy & Crockford, 2004). Its geographical scope covers Algeria, Cyprus, France, Greece, Italy, Lebanon, Mauritania, Morocco, Senegal, Spain, Tunisia and Turkey. This review covers only the relevant European range of the species, including Cyprus, France, Greece, Italy, Spain and Turkey. Spain is considered the most significant country for the conservation of Audouin's gull in Europe, where the species breeds in the Ebro delta (Catalonia) and the Chafarinas Islands. No information has been provided by Spain nationally, or by the Chafarinas Islands, however, regional information has been provided by Catalonia, which holds 65% of the global population 14.

General overview

Progress in the overall implementation of the action plan is good but further work is still needed (overall IS=2.1). The SAP has been most successfully implemented in Catalonia, where the species population is fluctuating, but newly established colonies have recently been discovered.

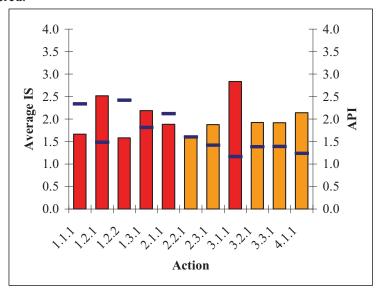


Figure ii Average implementation score (IS) and Action Priority Index (API) for each Action listed in the Audouin's gull species action plan. Colours represent Priority Score.

-

¹⁴ Oro and Ruxton (2001).

Status review

Audouin's gull breeds in Algeria, Cyprus, Croatia, France, Greece, Italy, Morocco, Spain (Ebro Delta and the Chafarinas Islands), Tunisia and Turkey, with the Ebro Delta (Catalonia) holding over 65% of the total breeding population. With almost 20,000 breeding pairs, Spain supports around 90% of the world's Audouin's gull population (Gutiérrez & Guinart, 2008). The species winters on the coast of North and West Africa. The most recent national breeding population estimate from Spain is from 2007, however, population trend data from 2000-2010 are available for Catalonia (holding the majority of the global population) and shows the population to be fluctuating and hence this is the global population trend for the species.

Table 9 Population estimate and trend by country

Country	Population at the time of the 1996 SAP (pairs)	Year	Population at the 2004 review (pairs)		Current population (pairs)	Year	Breeding trend	Reference
Cyprus	10-20	1993	15-30	1998- 2002	15-28	2007- 2010	12% Increasing	15
Croatia	_	-	65-70	2002	20-30	-	-	-
France	90	1993	56-92	1998- 2001	84	2009	Fluctuating	16
Greece	200-300	1993	750-900	1995- 2000	350-500	2010	30-40% Decreasing	17
Italy	550-650	1993	510-982	1999- 2000	1019	2008	Increasing	18
Spain	14,000	1993	16,957	2000	19,517	2007	Fluctuating ¹⁹	20
Turkey	50	1993	50-100	2001	60-90	2000- 2005	Unknown	-

Objective(s)

- 1. In the short term to maintain the current population throughout the species' range.
- 2. In the medium to long term, to conserve suitable habitats in order to promote the expansion of the species' range and numbers particularly in smaller colonies.

Evaluation

The short term target of the action plan has been met since the global population trend is fluctuating but not decreasing and the current population estimate (21,045-21,238) is higher than at the time of writing the action plan (14,900-15,110 pairs) and at the time of the 2004 review (18,338-19,061). The medium to long term target has also been met since the species has expanded its range and several new colonies have been found: in

¹⁵ Militadou M. 2009.

Indicates no data available.

¹⁶ Recorbet & Culioli 2009.

¹⁷ Hellenic Ornithological Society / BirdLife Greece, 2010.

¹⁸ N. Baccetti personal communication

¹⁹ Data from 2000 is available for Catalonia and shows that the population fluctuates between 9768 and 15396 pairs.

²⁰ Gutiérrez & Guinart, 2008

2005 in Torrevieja lagoon, Alicante²¹ (where 31 pairs nested for the first time in 2005 and increased to 298 pairs in 2006); and in 2010 in Llobregat Delta²²(140 pairs), Aiguamolls de l'Empordà Natural Park²³ (6 pairs), and Tarragona harbour²⁴ (1 pair). Although the population is decreasing in Greece, in all other countries it is fluctuating, stable or increasing and so overall the numbers in smaller colonies are increasing.

Conservation and Legal Status

The Global IUCN Red List Category of Audouin's gull is Near Threatened with criteria A3b nearly met because the species may undergo a moderately rapid population decline in future if current fishery practices change and as such it is precautionary treated as Near Threatened (BirdLife International 2010). It was listed as Lower Risk/Conservation Dependent in 1994; and Lower Risk/Near Threatened in 2000 when such categories existed.

The species is listed as Localised (SPEC 1) due to ≥90% of the population breeding at ≤10 sites in the European IUCN Red List (BirdLife International, 2004), and is listed in Annex I of the EU Council Directive on the Conservation of Wild Birds (79/409/EEC, 'Birds Directive'), in Appendix III of the Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention), Appendix I and II on the Convention on the Conservation of Migratory Species of Wild Animals (CMS or Bonn Convention) and Annex II of AEWA.

Turkey is the only range country that is not a contracting party to the AEWA. The AEWA has been signed by Greece but not ratified. MARPOL, Barcelona Convention and Biosafety Protocol have all been signed by Greece but are poorly enforced and there are no SPAMIs designated. A National CBD strategy is being developed in Greece and is expected to be completed in summer 2010.

²¹ Sáez & Arroyo 2005, (www.naturalicante.com/noticias/Noti-jun-2005/noticias-junio-05.htm).

²² In 2010 140 pairs breed (92 chicks ringed) in Llobregat Delta. In 2009 c.14 pairs (of which 5 successfully bred) in Llobregat Delta: http://birdspain.blogspot.com/2009/06/primer-caso-de-nidificacion-de-la.html

²³ In 2010 6 pairs nest but breeding is unsuccessful in Aiguamolls de l'Empordà Natural Park (also see J.M.Aledo in litt. for 2009 record).

²⁴ In 2010 1 pair (unsuccessful breeding) in Tarragona harbour.

Overview of past and current threats

Table 10 Table of importance of Audouin's gull threats by country²⁵. The current level of importance of threats listed in 1996 SAP and newly identified threats are listed for each country. The original importance level of the threats as listed in the 1996 SAP are included in brackets.

	Threats	identifie	d in 199	6						ied in 20	
Country	Habitat alterations at breeding sites (high)	Changes in fishing practices (high)	Competition with Yellow- legged gull & other species (locally high)	Egg collection & human persecution (low)	Human disturbance (low)	Depletion of food resources (unknown, potentially high)	Chemical pollution & oil spills (unknown)	Disturbance of colonies by anglers	Predation of nests and chicks	Colony fragmentation & reduction in size	Low temperatures &showers during unusual late spring dates
Cyprus	Low	Critical/ High	Medium	N/A	Critical	Low	Low/ Not relevant	Critical			
France	Medium	Medium	High	Low	Medium	Medium	Low		Medium (locally high)		
Greece	Medium	Medium	High	Low	Medium	High	Medium		Medium	Medium	
Italy	Medium	High	High	Medium	Medium	High	Medium	_			
Spain - Catalonia	Medium	High	High	Low	Medium	High	Low		High		Possibly High
Turkey	Low	Medium	High	Medium	High	Medium	Medium				

Assessment of the implementation

National and regional species action plans

National action plans for the species are in place only in France (the plan is up-to-date, financed by the national Government and implemented), Italy (the plan is from 2001 and has been very partially implemented, mainly through some LIFE projects in Tuscany), in Spain action plans have been adopted by 3 autonomous regions (Catalonia, Valencia and the Balearic Islands) thus covering the main distribution areas of the species. In Catalonia²⁶ for example, the plan is financed and implemented.

²⁵ No response on threats facing Audouin's gull were received from Spain.

²⁶ DECRET 259/2004, de 13 d'abril, pel qual es declara espècie en perill d'extinció la gavina corsa i s'aproven els plans de recuperació de diverses espècies (http://mediambient.gencat.net/cat/el_departament/actuacions_i_serveis/legislacio/natura/protecio_animals/DECRET_259_2004.jsp)

National working groups coordinate the activities in France, Greece, Italy, and Catalonia (the Spanish working group is not operative at least in the last years. Only informal contacts are kept).

Species conservation

Overall, the management of breeding colonies has received a low level of work; however, Catalonia and France have made significant progress. In Catalonia, the only management issues were regarding the management of alien species and ensuring the confidentiality of unprotected colony locations. The problems in keeping the location of unprotected colonies confidential were due to media pressure and lack of secrecy by local managers or media. However, following these cases, awareness-raising materials, including information on punishments for violation of the law, was widespread across all protected and coastal administration areas in Catalonia with good results. One of the newly discovered colonies in Catalonia experienced failed breeding in 2010 due to predation pressure; however, management actions are now being carried out to control alien species threatening the colony. Monitoring and control of alien predators is carried in the main Ebro delta colony. Another of the newly discovered colonies is just outside an existing SPA and so fishing (angling) in this area was banned in 2010 to reduce disturbance.

In Greece, fines for violations of protection laws are relatively low and are not enforced. Wardening of major colonies is not carried out by local authorities or Management Bodies, and so some disturbance occurs by locals and tourists visiting the islets in spring.

Rat predation has been recorded in some colonies and rat eradication is planned on specific islets (in 2010-11 through the LIFE project). Through the 1997-1999 LIFE projects, goats were removed from one site prior to the species' breeding season and in another, a wall was constructed in order to keep out goats (and thus dogs). Colonies are kept confidential in most cases although in most areas local people know where colonies are located.

Since the breeding colony in Cyprus is restricted to the Kleides islets at the far eastern side of the island, and the north of the island is under Turkish occupation, it is not possible for Cyprus to implement the majority of species and habitat conservation measures.

Site conservation

The key sites for the species enjoy high protected area coverage in most range countries.

There are 119 IBAs designated for the species in Europe, of which 113 are in the EU. The 101 SPAs in the EU designated for the species include >90% of the European breeding population. The most important colonies in Ebro Delta, Catalonia, are included in protected areas. In 2006, the Catalan Government designated new SPAs for birds, proposed new sites of Community importance (SCI) and modified previously designated sites. As a result, Catalan sites forming part of the Natura 2000 network now cover a total of 1,046,132 ha, of which 963,035 are terrestrial (29.8% of Catalan territory) and 83,104 marine²⁷. These designated SPAs and marine protected

 $^{^{27}} http://mediambient.gencat.net/eng//el_medi/espais_naturals/xarxa_natura_2000/xarxa_natura_2000_catal_unya.jsp$

areas include 100% of the previously known regional population, however, the largest newly established colony (in Llobregat delta) is located just c.50m outside of the current protected area (SPA Llobregat delta). Work is now being carried out to include this new breeding site within protected areas, however it is already covered by basic legislation and the official species recovery plan.

Several national marine protected areas have also been designated in Italy, as well as marine SPAs. Chronic lack of funding is a serious problem for some of these areas.

In Greece, 61% of area of breeding islets are identified as IBAs and 86% of these designated as SPAs. Three SPAs with a marine component include species colonies, two of which were designated in April 2010. Special Environmental Studies have been developed for many breeding sites in Greece, however, Management Bodies occur only in one breeding site for which a Management Plan is prepared and enforced.

Despite the only breeding colony in Cyprus being included in an IBA, the colony has no legal protection. Despite two new SPAs being designated with a marine component area in Cyprus, none of these include the feeding areas of the Audouin's Gull.

Habitat conservation

Integrated Coastal Zone Management

In Catalonia, significant progress has been made in implementing coastal strategies and ensuring the fishing ban on trawlers at Tarragona province does not coincide with the species' breeding season (as the species benefits from fish waste dumped from boats fishing nearby). From 2010 onwards the ban will not coincide with breeding season of Ebro delta.

A 'Special Planning Strategy for the Coastal Zone and Islands' in Greece was presented for public consultation in August 2009 but has not yet been voted for in parliament, and so is yet to be implemented. Fishing moratoria do not occur in the same manner and frequency in Greece compared to western Mediterranean and previous observation have shown that Audouin's gull does not depend on trawler bycatch for food, so the development of fishing moratoria that are compatible with the subsistence of the major breeding colonies is not a relevant action in Greece. However, as part of the 2009-2012 LIFE project²⁸ in Greece, ongoing work is being carried out to assess accidental trapping of the species and to implement specific activities, involving promotion of the modification of fishing gear and of existing regional and national fisheries regulations and practices, in collaboration with fishermen communities. EIAs are not deemed necessary in Greece in the case of small scale land use changes (e.g. agriculture and stock-breeding) and minor constructions.

In France, breeding colonies tend to move from site to site, but remain mostly in protected areas (nature reserves).

In Italy and Turkey, very little progress has been made to ensure coastal policies are compatible with the conservation of the species, with only extremely limited marine areas covered by fishing bans in Italy.

_

²⁸ LIFE project code: LIFE07 NAT/GR/000285

Prevention of oil spills and chemical pollution at sea

There has been moderate implementation of protecting the species and its habitat from chemical pollution of the sea and oil spills, with the majority of work being carried out by Catalonia where a civil protection plan to prevent marine contamination is enforced and in operation. Heavy fines are imposed in France for the cleaning of oil tankers outside designated areas. In Greece, agricultural runoff and release of chemicals close to colonies is not monitored but is suspected to be low since colonies are located on small uninhabited islets, near islands. Egg contents have been analysed (LIFE project 97-99).

Wintering sites and migration routes

Where relevant, the protection of wintering sites with more than 200 individuals of the species has been well implemented. However, the avoidance of over-fishing and monitoring of fishing activities near major wintering sites has received virtually no work except for the moderate amount carried out in Catalonia. In Greece, knowledge of the location of wintering sites in the country is poor, leading to low progress in protecting wintering sites and migration routes. Most available information originates from resightings of ringed birds (14 recoveries from over 520 ringed birds), mostly from Northern Africa.

This action is not relevant in Cyprus and France.

Monitoring and Research

Overall, monitoring of the population has been the most highly implemented action, with monitoring programmes in place in all the European range countries, except Turkey, at a national level and in protected areas. These programmes focus on monitoring the population size and breeding success through annual counts at colonies. Colour ringing and wintering monitoring of the most important colonies is conducted during the breeding season, involving locating feeding and roosting areas (involving direct systematic observation of birds at sea, telemetry, distribution of pelagic fish populations, oceanographic and sea productivity parameters), and aims to conclude in a marine IBAs inventory for the species. Research in France is mostly carried out on the breeding population and data collected are only partial.

In Catalonia, monitoring and, where necessary, control of predators is carried out every year in the main Ebro delta colony. In Greece, Yellow-legged Gull population monitoring takes place in some breeding sites. As part of the 2009-2012 LIFE project, actions to control invasive species (rats) will be implemented in the most suitable 5 sites and the assessment and pilot treatment of Yellow-legged Gull predation on Audouin's gull will be implemented at a specific site. The project also involves actions to assess the extent, characteristics and geographical hotspots of accidental trapping by fisheries of the species in Greece.

Human disturbance on the breeding islets in Cyprus is documented during census work (in May 2010 desertion of the main nesting islet was found due to documented disturbance by fishermen). Fishing activities in the suspected Northern and NE Cyprus

marine feeding areas are not documented (as the area is occupied by Turkish Troops). During the breeding census no predation by Yellow-legged gulls of Audouin's gull nests was.

There is an agreed protocol of low disturbance and census methodology in Greece enforced by HOS/BirdLife Greece during annual censuses.

In Catalonia there is also a protocol on low disturbance agreed between protected areas and wildlife service with the help of University researchers but no 'official' set of rules published elsewhere. Actions are based on common knowledge on the protection of the species and previous management experiences. Any work dealing with the species needs an official permit detailing actions to be carried out, timing etc.

Public awareness and stakeholder involvement

Actions to provide information and raise awareness of the plight of Audouin's gull have received a high level of implementation by Greece and Catalonia, and to a lesser extent, France and Italy, despite being only a medium priority action. Implementation in Cyprus and Turkey was very low.

Through the 2009-2012 LIFE project in Greece, eight actions are being implemented as part of an extensive and well-focused public awareness campaign, focusing various target groups, for the conservation of the species and the promotion of the marine protected areas concept in Greece. The campaign involves environmental education activities, special publications, information kiosks and mobile exhibitions, media work, and extensive use of the internet media.

A special t-shirt on the Audouin's gull has been developed and produced in Catalonia, as well as leaflets produced, and toys in collaboration with the Valencia government. The annual ringing scheme at Ebro Delta involves the local people to encourage appreciation and understanding of the species. The Catalonia regional recovery plan is published in three languages (Catalan, Spanish, and English).

The majority of conservation/communication actions in France are linked to site management (including nature reserves) and are coordinated in the national action plan.

Community financial support

Five LIFE projects²⁹ that benefit Audouin's gull have been implemented in Greece (1), Italy (1) and Spain (3), during the period 2004-2010, with a total budget of more than 5 million Euros, of which the total European Union contribution was more than 3.5 million Euros.

In addition, 3 projects receiving over 500,000 Euros of national government or international donor funding have been carried out to implement a national action plan in France, increase knowledge on the distribution, movements and ecology of seabirds in Greece, and warden, control and monitor pests at the Ebro delta colony, Catalonia.

²⁹ LIFE project codes: LIFE07 NAT/GR/000285; LIFE04 NAT/IT/000172; LIFE02 NAT/E/008608; LIFE03 NAT/E/00061; LIFE02 NAT/E/008612

Conclusions

The progress in the implementation of the action plan is fairly good (Average IS=2.1), but further work is still needed. Catalonia, holding the largest proportion of the population, has made significantly good progress, with the action receiving the least implementation (although still a lot of work has been carried out) being the protection of the species and its habitat from oil spills and chemical pollution of the sea. Overall, the actions that have received the least work are the ensuring of the compatibility of policies with the conservation of the species, the protection of the species from oil spills and chemical pollution at sea, and the undertaking of appropriate management at breeding colonies.

National implementation scores (NIS) are highest in Catalonia, France and Greece, and lowest in Cyprus, Italy and Turkey.

Further measures/work still needed especially in the field of:

- Development of incentives in agreement with IMO and shipping insurance brokers for oil tanker companies avoiding sensitive marine ecosystems.
- Monitoring of the release of chemicals in feeding waters.
- Monitoring of the use of agricultural chemicals near colonies.
- Developing and implementing management plans for each designated site.
- Ensuring fishing moratoria are compatible with the subsistence of the major breeding colonies.
- Ensuring national policies promote sustainable development (eco-tourism) in inhabited islands.
- Meeting(s) held to exchange information, debate problems, update the action plan and coordinate fieldwork organised every 2–3 years, and proceedings published.

Contributors

Michael Miltiadou (BirdLife Cyprus); Bernard Deceuninck (LPO - BirdLife France); Danae Portolou (Hellenic Ornithological Society/BirdLife Greece); Claudio Celada (LIPU Birdlife Italy); Ricard Gutiérrez (Wildlife Service. Government of Catalonia); Ortaç Onmuş (Ege University Natural History Museum Research and Application Center); Gordan Lukac (Paklenica National Park)

Appendix 1

Table 11 Implementation of the action plan in the European range states³⁰. PS = Priority Score; Ave. IS = Average Implementation Score; API = Action Priority Index; National IS = National Implementation Score.

								-		Ī
Action	ActionMeasure	PS	CY	FR	GR	II	ES- C	TR 1	Ave. IS	API
1.1.1	Policies (including fishing and shipping) compatible with the conservation of the species	3	1	7	7	1	3.3		1.7	2.3
	a. Fishing moratoria are compatible with the subsistence of the major breeding colonies.	3	0	0	0	1	3		1.7	2.3
	b. National Coastal Strategy, taking in to account the conservation of the species and of its habitat,	2	0	2	2	_	4		2.0	1.3
	developed.									
	c. National Coastal Strategy implemented.	7	1	2	0	1	3	1	1.6	1.6
1.2.1	Establish legal protection for the species and its habitat	3	1.6	3.2	3.2	3.3	3.5	1	2.6	1.4
	a. National policies promote sustainable development (eco-tourism) in inhabited islands.	3	0	2	2	2	0	1	8.1	2.3
	b. National policies grant full protection to deserted islands.	3	1	3	3	3	4	1	2.5	1.5
	c. All islands where the species occurs or occurred recently are declared SAC. Outside the EU similar	3	1	0	4	4	0	-	2.5	1.5
	- 1									
	 a. All Islands where the species occurs of occurred recently are declared SFA. Outside the EU similar protection is granted. 	<u>ω</u>		4	3	4	8	_	2.7	1.3
	e. The species is fully protected.	3	4	4	4	4	4	[3.5	0.5
	f. All breeding and wintering sites are protected by national law.	3	1	က	3	3	3	1	2.3	1.7
1.2.2	To protect the species and its habitat from chemical pollution of the sea and oil spills	3	1.6	7	1.3	1.2	2.7	1.2	1.7	2.3
	a. National and international legislation on chemical pollution is enforced.	3	4	2	2	1	2	2	2.2	1.8
	b. Use of agricultural chemicals near colonies is monitored.	3	1	~	0	1	3		4.	5.6
	c. Release of chemicals in the feeding waters is monitored.	3	1	~	1	1	3	1	.3	2.7
	d. Incentives are developed in agreement with IMO and shipping insurance brokers for oil tanker			2			0		.2	2.8
	companies avoiding sensitive marine ecosystems.	c	-	_	-	c	_			,
	e. rreavy lines are imposed for the cleaning of oil tankers outside designated areas.	2	_	4	_	7	O		۷.	7:7
1.3.1	Preparation of national species action plans and involvement of international conventions and funding		1.5	3.6	2.1	8.2	3.6		2.4	1.6
	a. National action plan developed.	3	1	4	1	4	4	1	2.5	1.5
	b. National action plan implemented.	3	1	4	1	1	4	1	2.0	2.0
	c. AEWA signed and ratified.	7	1	4	Ţ	4	4	1	2.5	1.0
	d. Barcelona Convention signed and ratified.	2	3	4	4	4	4	1	3.3	0.4
	e. All colonies are MedSPA	2	1	4	1	1	2		1.7	1.6
		Ì	Ì	Ì	1					

30 CY=Cyprus; FR=France; GR=Greece; IT=Italy; ES-C =Catalonia; TR=Turkey.

is is plant plant plant E E E E E E E E E E E E E E E E E E E	o National strateov under the CBD promote conservation and sustainable management of the coastal and			L		-	- ×		
	the company of the co	_	C.	γ.	_	=			7
	island ecosystem.	4	,	,	,	,	;	1	,
	 h. Bilateral agreement between government for establishing and manage protected areas and for research in place. 	1	7	7	ω	3 1	2.0	2.0	0
	Ensure adequate protection of breeding sites and remove major threats to breeding habitat	1	2.6	7	1.6	3.8 1	2.0	2.0	0
a.	a. All IBAs where the species breed declared protected areas.	1	4	3	3	4 1	2.7	, .	1.3
b.	b. Where colonies are highly mobile, temporary protection schemes implemented.	0	က	7	1 4	4 1	2.2		8.1
ပ်		1	2	1	1	3 1	1.5	2.5	2
d.	d. Where protection status has not been completed, planning instrument take into consideration the		ď		_	-	10	c	c
īd	presence of breeding colonies.		<u>ე</u>	_	_	-	1.0		۷
e.	e. All proposed land uses changes threatening occupied or traditional breeding sites are subject to	_	_	,	(1 1	0		
<u>c</u>		_	-	<u> </u>		- +	۲.۲_		>
2.2.1 U	Undertake appropriate management at breeding colonies	1	2.4	1.7	1.3	3 1	1.7		1.5
a.	Human access to colonies both from land and sea is prevented.	1	က	1	1 4	4	1.8	2.2	7
Ġ.	b. When competition with and predation by Yellow-legged Gull is proved to be a problem, their population	-	C.	6	-	-	2.0		·
is		•)	1	4		i		,
c.	Causes of Yellow-legged Gull population increase understood.	1	7	3	2	4	2.2	1	2
d.	d. When rats are seriously threatening a colony, they are controlled by appropriate means.	1	2	3	2	2 1	1.8	1	4.
e.	e. Foxes, feral cat and dogs are removed from colonies.	1	0		1	2 1	1.2		6.1
f.	f. Location of unprotected colonies is kept confidential.	0	0	П	1	2	1.3		8.1
50	g. Wardening in place to avoid egg-collection.	1	7	П	1	3 1	1.5	8.0	~
2.3.1 P	Protect Audouin's Gull and its habitat in the winter quarters and along the migration route	0	0	1	2	3 1.	.5 1.9	1.4	4
a.	a. All wintering sites with more than 200 individuals of the species are protected.	0	0		3 4	4 2	2.5	1.0	0
p.	b. Fishing activities in the vicinity of the major wintering site are monitored and over-fishing avoided.	0	0	1	1	2	1.3	1.8	~
3.1.1 S	Set up and implement a monitoring programme	4	3	3.7	1.8	3.5 1.	1.2 2.9	1.1	1
a.	a. Population monitoring ongoing.	4	4	4	3 4	4 2	3.5	0.5	5
p.	b. Working groups meet every 2-3 years.	0	0	4	2	2 1	2.3		8.1
c.	c. Detailed population surveys carried out in eastern and southern Mediterranean.	0	3	3	2	4	2.6	Ţ	4.1
d.	d. World population census carried out.	0	3	3	1 4	4	2.4		9.1
o.	Co-ordinated colour ringing scheme at selected colonies, covering the whole range of the species,	0	7	4	1	4	2.4	1.1	
<u>5</u>	ongoing;	_	4			_	4		П
f.		4	က	4	2	3 1	2.8	0.8	∞
$3.2.1$ $\stackrel{P}{G}$	Promote research which is of direct application to the conservation and management of Audoum's Gull	1.4	2.3	2.5	1.5	3.1 1.	1.1 2.0	1.3	
a.	a. Most important passage and wintering sites identified.	-	4	2	1	4	2.3	1.	7

	b. Knowledge of the species' winter ecology improved.	2.5		-	2 2	2		1.5		2.1
	c. Factors regulating breeding success and survival determined.	2	1	3	3	4	. 1	2.3	1	Г.
	d. Predictive population model developed.	3	1	0	2 1	4		1.8		2.2
	e. Mechanism for breeding site selection understood.	2	1	2	2	3	1	1.8	1	4.
	f. Breeding success at different habitats compared.	2	1	3	3 2	2	1	2.0		1.3
	g. Diet in different parts of the range determined.	2	1	-	2 1	3		1.5	1	7.
	h. Protocol on low disturbance research agreed.	2	4	7	4 1	3	1	2.5	1	0:
3.3.1	Assess the major threats to the Audouin's gull and their effects	2	1.2	2.2	3 1	1.3 3	3.1	2.0		4.1
	a. Levels of chemical pollution determined.	2	1	0	3 1	2	1	1.6		9.1
	b. Effect of fishing evaluated.	3	1	0	3 1	3	1	1.8		2.2
	c. Habitat requirements understood.	2	1	2	3 2	3	1	2.0		1.3
	d. Effect of human disturbance assessed.	2	2	3	3 1	3	1	2.2	1	2.
	e. The impact of the Yellow legged Gull on the Audouin's Gull evaluated.	2	1	3	3 2	4	. 1	2.3	1	Г.
	f. Impact of terrestrial predators determined.	2	0	2	3 1	4	. 1	2.2	1	.2
	g. Fishing activities monitored.	3	1	1	3 1	3	1	1.7		2.3
4.1.1	Provide information and increase awareness of AG, the need for its conservation and to promote the AG as a flagshin species	1e ₂	1	1.7	3.7	1.6 3	3.4	2.1		1.3
	a. Awareness among politicians and decision-makers increased.	2	_	8	4	4	<u> </u>	2.3		-:
	b. Awareness amongst general public increased.	2	1	2	1 2	4		2.3	1	T:
	c. Tourists and fishermen involved in preventing disturbance.	3	1	0	3 2	3	1	2.0		2.0
	d. Educational material prepared and distributed.	2	1	1	4 2	4	. 1	2.2	1	2.
	e. Media used to increase awareness.	2	1	1	4 1	4	. 1	2.0	1	.3
	f. Audouin's Gull used as flagship for the protection of Mediterranean coastal habitats and islands.	2	1	1	1 2	4	. 1	2.2	1	.2
	g. A meeting to exchange information, debate problems, update the action plan and coordinate fieldworks organised every 2–3 years, and proceedings published.	,		2	3			1.5		2.5
	National IS and Average IS		1.6	2.6	2.4 1	1.8 3	3.3 1	1.1 2.1		

References

BirdLife International, 2004. *Birds in Europe: population estimates, trends and conservation status*. Cambridge, UK: BirdLife International (BirdLife Conservation Series No. 12)

BirdLife International 2010. *Larus audouinii*. In: IUCN 2010. IUCN Red List of Threatened Species. Version 2010.2. <<u>www.iucnredlist.org</u>>. Downloaded on 18 August 2010.

Dimalexis, T., Fric, J. and V. Saravia Mullin (2007) Survey and Conservation of Seabirds in Greece Annual Project Report. Hellenic Ornithological Society.

Gutiérrez, R and Guinart, E. 2008. The Ebro Delta Audouin's Gull colony and vagrancy potential to northwest Europe. British Birds 101. 442–447.

Lambertini, M. 1996. International Action Plan for Audouin's Gull (*Larus audouinii*). BirdLife International report to the European Commission, unpublished. (Document available at: http://ec.europa.eu/environment/nature/conservation/wildbirds/action_plans/docs/larus_a udouinii.pdf).

Militadou M. 2009. Populations of Breeding Coastal Birds of Cyprus, including 2009 survey of Kleides Islands. Cyprus BirdLife Magazine. Autumn 2009. Nicosia.

Miltiadou M. 2007. Breeding Census of Audouin's Gull Larus audouinii colony at Kleides Islands. Cyprus BirdLife Magazine. Summer 2007. Nicosia.

Miltiadou M. 2010. Kleides Islands Coastal Bird Breeding Census 2010. Cyprus BirdLife Magazine. Summer 2010. Nicosia.

Pérez, I.; Mínguez, E.; Sarzo, B.; Villuendas, E.; Martínez, A.; Oro, D.; Carda, J. & Jiménez, J. 2009. *Lessons from the management of Audouin's Gull* Larus audouinii *in Eastern Spain (1999-2008): recommended guidelines*. Consellería de Medio Ambiente, Agua, Urbanismo y Vivienda. Generalitat Valenciana. Valencia.

Recorbet, B. & Culioli, J.-M. 2009. Goéland d'Audouin Larus audouinii p 152 In de seynes, A. & Coordinateurs espèces. Les Oiseaux nicheurs rares et menacés en France en 2009. Ornithos 17-3: 137-168.

Sáez, A., & Arroyo, S. 2005. La Gaviota de Audouin cria en el PN de Torrevieja-La Mata. Noticias Naturalicante Junio 2005. Retrieved from www.naturalicante.com/noticias/Noti-jun-2005/noticias-junio-05.htm