

7. Annexes

Annex 1. Breeding and non-breeding population estimates in range states

All data come from the 2007 enquiry, except for breeding pairs in Russia (Burfield & van Bommel 2004), but the real year of investigation is noted in the table.

Trends: F = fluctuating, - = negative trend, + = positive trend, 0 = no trend, ? = trend unknown, n.d. = no data, n.a. = not applicable

P. l. leucorodia (Atlantic)

Country	No breeding	No of colonies	Breeding success	Year	Trend	Wintering numbers	Year	Trend
Belgium	18	1	2.5	2007	+	0-2	>2000	0
Denmark	57	4	2.1	2008	+	0	2007	n.a.
France	142	7	2.47	2005	+	430	2007	+
Germany	220	9	1.3-2.2	2007	+	0	2007	n.a.
Morocco	20	1	n.d.	2004	+	349	1995-2005	0/+
Netherlands	1890	29	1.9	2007	+	0-2	2007	n.a.
Portugal	92-99	10	n.d.	2002	+	900-1200	2004-2006	+
Spain	1631	12	1.2-1.8 (in 4 colonies in 2007) but highly variable among years & colonies	2007	+	1,500 in Andalusia; more than 270 rest of Spain	2002-2006	+
United Kingdom	1-7		n.d.	99-00	N	12	2004-2005	0
Gambia	n.d.	n.d.	n.d.	n.d.	n.d.	<30	1998-2006	0
Mali	n.d.	n.d.	n.d.	n.d.	n.d.	55	2007	0
Mauritania	n.d.	n.d.	n.d.	n.d.	n.d.	10,000	>2000	F
Senegal	n.d.	n.d.	n.d.	n.d.	n.d.	112-3735	1989-2007	F

P. l. leucorodia (Continental)

Country	No breeding	No of colonies	Breeding success	Year	Trend	Wintering numbers	Year	Trend
Albania	Not recently	n.a.	n.a.	2005	-	3-24	1995-2002	F
Austria	38	1	n.d.	2006	0	0		n.a.
Bosnia	Not recently	n.a.	n.a.	>200	-	0		n.a.
Bulgaria	55-150	7	n.d.	2007	0	0-5	1991-2007	F
Croatia	154-275	3	n.d.	2006-2007	0	16-120	1998-2004	F
Czech Republic	3	1	1.0	2007	+	0		n.a.
Greece	223	4	n.d.	2003	F	284 - 355	1999-2003	+
Hungary	1100-1200	16	n.d.	2007	F	0-20	2007	+
Italy	105-110	3-5	n.d.	2007	+	580	2000	+
Moldova	5-20	1	n.d.	90-00	0	0		n.a.
Montenegro	33	1	n.d.	2007	+	0-90	1999-2007	+
Romania	1400-1600	17	n.d.	2006	0	64	2006	+
Serbia	190-240	5	n.d.	2007	0	30-150	1990-2007	+
Slovakia	10-35		n.d.	80-99	F	0		n.a.
Turkey	500-700	11	n.d.	2006	?	166-1320	1999-2005	+

Ukraine	1000-1500	14	n.d.	2000	?	0		n.a.
Cyprus	-	-	-	-	-	10	>2000	0
Algeria	-	-	-	-	-	<100	>2000	0
Cameroon	-	-	-	-	-	253	1997	0
Chad	-	-	-	-	-	2	2003	n.d.
Israel	-	-	-	-	-	267-907	2005-2002	0
Jordan	-	-	-	-	-	9-75	>2000	0
Libya	-	-	-	-	-	90	2005-2007	+
Mali	-	-	-	-	-	55	2007	0
Niger	-	-	-	-	-	100-200	>2000	0
Nigeria	-	-	-	-	-	2-18	1980-2007	0
Tunisia	-	-	-	-	-	3000-5000	>2000	+

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Country	No breeding	No of colonies	Year	Trend	Wintering numbers	Year	Trend
Armenia	1-3	1	2003-2005	-	Single individuals.	2001-2007	?
Azerbaijan	800	2	2006	0	n.d.		n.a.
Iran	420-770		1977 – 2006	0	367-494	2002-2007	0
Iraq	15	3	2007	0	110	2000-2007	0
Kazakhstan	400-650	3	1996-2000	-	<10	>2000	0
Kuwait	65	5-10	2007	0	110	>2000	?
Russia	2500-3000		1990-2000	-	n.d.		n.a.
Syria	50-100	1	2005	0	42	2004	0
Tajikistan	n.d.	n.d.	n.d.	n.a.	n.d.		n.a.
Turkmenistan	1-2	1	>2000	n.a.	n.d.		n.a.
Uzbekistan	250	1	>2000	-	n.d.		n.a.
Georgia	n.d.	n.d.		n.a.	22-225	1981-2003	?
Oman	n.d.	n.d.	n.d.	n.a.	875	2005	?
United Arab Emirates	n.d.	n.d.	n.d.	n.a.	80	2007	?

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Countries	No breeding	No of colonies	Year	Trend	Wintering numbers	Year	Trend
Djibouti	4 (17-1987)	1	>2000	-	81	2001	?
Egypt	100	0	>2000	-	700	>2000	?
Eritrea	250	20	2007	0	500	2006	0
Saudi Arabia	110-250	22	1996	?	350	>2000	?
Somalia	200		2006	?	n.d.		n.a.
Sudan	200-500			?	175	2007	?
Yemen	30-40	4	>2001	?	n.d.		n.a.

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Countries	No breeding	No of colonies	Year	Trend	Wintering numbers	Year	Trend
Mauritania	750	3	2007	-	3,100	2007	-

Annex 2. Threats encountered by each population/subspecies in the different stages of the life

- ①. **Critical:** a factor causing or likely to cause very rapid declines (>30% over 10 years);
- ②. **High:** a factor causing or likely to cause rapid declines (20-30% over 10 years);
- ③. **Medium:** a factor causing or likely to cause relatively slow, but significant, declines (10-20% over 10 years);
- ④. **Low:** a factor causing or likely to cause fluctuations;
- ⑤. **Local:** a factor causing or likely to cause negligible declines;
- ⑥. **Unknown:** a factor that is likely to affect the species but it is unknown to what extent;
- Blank space:** factor does not apply in this country.

P. l. leucorodia (Atlantic)

THREATS		Belgium	Denmark	France	Germany	Morocco	Nether-	Portugal	Spain	Gambia	Senegal
Habitat Loss/Degradation (human induced)											
Agriculture abandonment				⑥			⑤	⑤			⑤
Marine aquaculture				⑥		③	⑤		④		⑤
Freshwater aquaculture							⑤				⑤
Abandoning of land management in non-agricultural areas			⑤	④			⑤	④			
Change of management /water regime				⑤			⑤	③	③		
Fisheries					③		⑤	③			④
Infrastructure development /Industry		②		④			⑤	④			⑤
Human settlement				④		②	③	④	②		③
Tourism/recreation			⑤	④	④	④	③	④	②		⑤
Transport – water				④		④	③				⑤
Dams				⑤		⑤					②
Telecommunications				⑥			⑤	⑤			⑤
Power lines		⑥		⑤			③	③	⑤		⑤
Invasive alien species (directly impacting habitat)				④					③		④
Change in native species dynamics (directly impacting habitat)				④			⑤				
Invasive alien species (directly affecting the species)											
Competitors				⑥							⑤
Predators			⑤	⑥			③		③		⑤
Pathogens/parasites/toxins				⑥				⑥	③		
Accidental mortality											
Bycatch	Hooking							⑤			④
	Netting							⑤	⑤		④
	Poisoning			⑥			⑤	⑤			
	Shooting			⑤		⑤	⑤	⑤	⑤	⑤	
	Pest control						④				
Collision	Pylon and building collision	⑥	⑤	⑥			⑤	⑤			
	Vehicle collision						⑤	⑤			

Pollution (affecting habitat and/or species)													
Water pollution	Agricultural		4	5	5	3	3	3	3				3
	Domestic			0	0	3	3	5					5
	Commercial/Industrial			0	5		5	3	3				
	Non-agricultural			4	0		5	5					
	Thermal pollution				0		5	5					
	Oil spills	5			0			5					
	Sediment	2		5				5					
	Sewage					4		5					5
	Solid waste					4		5					
Noise pollution				4		0		5					
Natural disasters													
Drought				0	0	5			3				3
Storms/flooding			3	5	4		4		2				3
Temperature extremes				0					3				
Changes in native species dynamics													
Competition for nests				0	0			0					
Predators			2		0	0			0				5
Prey/food base					0	0			5	3			
Pathogens/parasites					0	0			5				
Intrinsic Factors													
Limited dispersal					0								
Poor recruitment/reproduction					0				0				
High juvenile mortality					5				0	4			
Inbreeding					5				0				
Low densities					5				5				
Skewed sex ratios					0				0				
Slow growth rates					0				0				
Population fluctuations					0				4				4
Restricted range			4		0		2		5				
Human disturbance													
Recreation/tourism				5	5	5	4	3	3	4			4
Research					0	5		4					3
Hunting					5		4		5				3
Transport					4								3
Others													
Wind farms						5							
Reedbed cutting					4								
Nesting trees cutting and tree mortality					5					2			
Drought at staging sites in Spain								5		3			

P. l. leucorodia (Continental, breeding countries)

THREATS		Albania	Austria	Bosnia	Bulgaria	Croatia	Greece	Hungary	Italy	Moldova	Montene-	Romania	Serbia	Slovakia	Turkey	Ukraine
Habitat Loss/Degradation (human induced)																
Agriculture abandonment		4	4			4		3		5	4	5				
Marine aquaculture		2				4										
Freshwater aquaculture		4		2	3	2		4				4	2	2		
Abandoning of land management in non-agricultural areas		4				2						4				
Change of management regime						2	3	4		5		2				5
Fisheries		3	4		3	3					0	5				
Fish farming		3		2	3			4					2	2		
Infrastructure development																
Industry			4		2			4				3	5		3	
Human settlement		3			2			4				3	5			
Tourism/recreation		2			2	2		4	4		0	2	2			5
Transport – water					2	3		4		5	0	5				
Dams						2		3				5			3	
Telecommunications									4			0				
Power lines		4			4			5				0				
Oil pipeline (production)					2					0						
Invasive alien species (directly impacting habitat)						2		3	5							
Change in native species dynamics (directly impacting habitat)						3		2	5			0	5		5	
Invasive alien species (directly affecting the species)																
Predators								5		0			5			
Accidental mortality																
Bycatch	Fisheries-related										0					
	Shooting	2			4	4		5	5			0	4			
	Poisoning								5							
	Pest control					4										
Persecution																
Pest control												5	4			
Pollution (affecting habitat and/or species)																
Water pollution	Agricultural	0	4				2	3		0	0	0	4		3	5
	Domestic					5	2			0	0	0			4	
	Commercial/Industrial				3	3	3	3		0		0	4		3	5
	Other non-agricultural											0	5			
	Oil slicks				3					0						
	Sewage						2			0					3	
Noise pollution		3										0	5			
Natural disasters																
Drought			5		3	4		2	5	4		3	5		4	
Storms/flooding					2	5		4	4			3	3		4	

Temperature extremes						4		0	4									
Fires					4			5										
Salinity and water level								2										
Changes in native species dynamics																		
Competitors						5	3	5										5
Predators					4	5		5	3	0	0	3	5					5
Prey/food base		2			3			4	5			0	3					0
Pathogens/parasites					5			5		0		0						
Intrinsic Factors																		
High juvenile mortality								4	4	0		0						0
Low densities						5												
Population fluctuations					3	5		3		0		3						
Restricted range					2			4						5				
Human disturbance																		
Recreation/tourism		2	4		3	4		5	5	5	0	3	3					5
Research						4		5	5			4	4					
War/civil unrest/ exercises by military aircraft				2				4										
Hunting		2		2	3	4			5	5	0	5	5					
Transport								4			0	5						
Logging, disturbance by management of commercial fishponds		2		0	2			5										
Others																		
Reedbed management (cutting, fire)		2																5
Nesting trees cutting					2													
Negative effects (especially groundwater levels) of regulation of rivers									3		0							
Negative effects (especially reduction of dropping groundwater levels) of creating mining lakes around breeding and feeding ground									5		5							

P. l. leucorodia (Continental, non breeding countries)

THREATS				Algeria	Cameroon	Chad	Cyprus	Israel	Jordan	Kenya	Libya	Mace- donia	Mali	Malta	Niger	Tunisia
Habitat Loss/Degradation (human induced)																
Agriculture abandonment										4						
Land management of non-agricultural areas										4						
Change of management regime									3						3	3
Fisheries					5										3	
Industry										4						4
Human settlement											3	0				3
Tourism/recreation									4		4	0				0
Dams					2				2				5			

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THREATS		Armenia	Iran	Iraq	Kazakhstan	Kuwait	Russia	Turkmenistan	Syria	Uzbekistan	Oman	United Arab Emirates
Habitat Loss/Degradation (human induced)							4					
Agriculture	Abandonment	0		4								
Marine aquaculture			3									
Freshwater aquaculture			2					2		2		
Change of management regime		5		5	5					1		
Fisheries			3	3					2			
Fish farming		3							2	3		
Infrastructure development		Industry										
Human settlement		0	0	4	4			2				
Tourism/recreation		0	2	5	5					5		2
Transport – water		0	5	4	4							
Dams			0	4	4							
Power lines		0	0				4					
Drying up of rivers flood-land lakes										2		
Water discharge resulting in flooding of islands							4					
Change in native species dynamics (directly impacting habitat)		0	0	3								
Invasive alien species (directly affecting the species)			0	2								
Predators												
Accidental mortality	Netting			2								
	Poisoning	0		2								
	Shooting/poaching	2	5	2	5	4				4		
Pylon and building collision		0	5									
Water pollution	Agricultural	2	3				4	3	3			
	Domestic	0	0				4					
	Commercial/Industrial		0	4	4							
	Other non-agricultural	0	0						3			
	Thermal pollution											
	Oil slicks			5	5							
	Sediment	2										
	Sewage	0	0						4			
	Solid waste	0		5	5							
	Noise pollution		3								4	
	Fire in reedbeds (mainly during breeding season)	2		4	4					2		
Natural disasters	Drought		2				3			2		
Storms/flooding			3	3			3			3		
Temperature extremes		0	0	2			3					
Salinity and water level variations							3		3			
Changes in native species dynamics												
Competitors			0	2								
Predators		0	0	4								

Prey/food base	0	0	2								
Poor recruitment/reproduction	0		2								
High juvenile mortality			2								
Low densities	2		3								
Human disturbance											
Recreation/tourism	2	2	4	5			2				2
Research	2	4	4								
War/civil unrest			2								
Hunting	2	4	2	5	4		2	2			
Visits to colonies			2								2

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THREATS			Djibouti	Egypt	Eritrea	Saudi Ara-	Somalia	Sudan	Mauritania
Habitat Loss/Degradation (human induced)									
Agriculture	Abandonment							2	
Marine aquaculture						3		1	
Land management of non-agricultural areas	Change of management regime		2	5		3			
Fisheries			?		5	2	3	1	4
Infrastructure development					0			2	2
Human settlement				2	3	2		3	3
Tourism/recreation			2	2	5	3		1	
Transport – water					5	4		5	
Dams					5			0	
Invasive alien species (directly impacting habitat)			1		0	3			
Invasive alien species (directly affecting the species)									
Competitors			1		0				
Predators			1		0	3			
Accidental mortality	Bycatch	Shooting	0	3					
		Netting				3			
		Pest control				3			
Water pollution	Agricultural			3	5				
	Domestic				0	2			
	Commercial/Industrial				0	2			
	Other non-agricultural				5				
	Thermal pollution				5				
	Oil slicks		0			3			
	Sediment		0		0				
	Sewage		0		5	2			3
Solid waste		0	3	5					
Noise pollution					3				
Changes in native species dynamics	Competitors		0		0				3
	Predators		0		0	3			5
Intrinsic Factors	Low densities		0		0				1
	High juvenile mortality			2		3			
Human disturbance									
Recreation/tourism			1	2	5	3		3	
Nest photography and permanent disturbance of the colony			0			4			
War/civil unrest			0					5	
Hunting			0	3					

Annex 3. Membership of states in international conservation conventions and agreements

Y: party of the convention, N: not yet, blank: not applicable

Range States	Convention on International Trade in Endangered Species of Wild Flora and Fauna (CITES)	Convention on the Conservation of Migratory Species (CMS)	Convention on the Conservation of European Wildlife and Natural Habitats (Bern Convention)	African-Eurasian Migratory Waterbird Agreement (AEWA)	European Union Bird Directive	Ramsar Convention
Belgium	Y	Y	Y	Y	Y	Y
Denmark	Y	Y	Y	Y	Y	Y
France	Y	Y	Y	Y	Y	Y
Germany	Y	Y	Y	Y	Y	Y
Morocco	Y	Y	Y	Y	Y	Y
Netherlands	Y	Y	Y	Y	Y	Y
Portugal	Y	Y	Y	Y	Y	Y
Spain	Y	Y	Y	Y	Y	Y
United Kingdom	Y	Y	Y	Y	Y	Y
Cape Verde	Y	Y		N		Y
Dem. Rep. Congo	Y	Y		N		Y
Gambia	Y	Y		Y		Y
Luxemburg	Y	Y	Y	Y	Y	Y
Senegal	Y	Y	Y	Y		Y
Sweden	Y	Y	Y	Y	Y	Y
Albania	Y	Y	Y	Y		Y
Austria	Y	Y	Y	N	Y	Y
Bosnia & Herzegovina	N	N		N		Y
Bulgaria	Y	Y	Y	Y	Y	Y
Croatia	Y	Y	Y	Y		Y
Czech Republic	Y	Y	Y	Y	Y	Y
Greece	Y	Y	Y	Y	Y	Y
Hungary	Y	Y	Y	Y	Y	Y
Italy	Y	Y	Y	Y	Y	Y
Moldova	Y	Y	Y	Y		Y
Montenegro	Y	N		N		Y
Romania	Y	Y	Y	Y	Y	Y
Serbia	Y	N		N		Y
Slovakia	Y	Y	Y	Y	Y	Y
Turkey	Y	Y	Y	N		Y
Ukraine	Y	Y	Y	Y		Y
Algeria	Y	Y		Y		Y

Burkina Faso	Y	Y	Y	N		Y
Cameroon	Y	Y		N		Y
Chad	Y	Y		N		Y
Cyprus	Y	Y	Y	N	Y	Y
Israel	Y	Y		Y		Y
Jordan	Y	Y		Y		Y
Kenya	Y	Y		Y		Y
Lebanon	N	N		Y		N
Libya	N	Y		Y		Y
Macedonia FYR	N	Y	Y	Y		Y
Mali	Y	Y		Y		Y
Malta	Y	Y	Y	N	Y	Y
Niger	Y	Y		Y		Y
Nigeria	Y	Y		Y		Y
Poland	Y	Y	Y	N	Y	Y
Slovenia	Y	Y	Y	Y	Y	Y
Switzerland	Y	Y	Y	Y		Y
Tunisia	Y	Y	Y	Y		Y
Uganda	Y	Y		Y		Y
Armenia	N	N	Y	N		Y
Azerbaijan	Y	N	Y	N		Y
Iran	Y	N		N		Y
Iraq	N	N		N		Y
Kazakhstan	Y	Y		N		Y
Kuwait	Y	N		N		N
Russia	Y	N		N		Y
Syria	Y	Y		Y		Y
Turkmenistan	N	N		N		Y
United Arab Emirates	Y	N		N		Y
Uzbekistan	Y	Y		Y		Y
Bahrain	N	N		N		Y
Belarus	Y	Y		N		N
Georgia	Y	Y		Y		Y
Oman	N	N		N		N
Qatar	Y	N		N		N
Tajikistan	Y	Y				Y
Djibouti	Y	Y		Y		Y
Eritrea	Y	Y		N		N
Egypt	Y	Y				Y
Saudi Arabia	Y	Y		N		N
Somalia	Y	Y		N		N
Sudan	Y			Y		Y
Yemen	Y	Y		N		N
Ethiopia	Y	N		N		Y
Mauritania	Y	Y		N		Y

Annex 4. Spoonbill conservation and protection status

P. l. leucorodia (Atlantic)

Country	National Red Data Book	National protection status	Under what law is the species protected	Is Spoonbill legally protected from being deliberately killed?	Is Spoonbill legally protected from egg harvest?	Is Spoonbill legally protected from nest destruction?	What are the penalties for?			Who is the highest national authority for protection of birds?
							Illegal killing	Egg harvest	Nest destruction	
Belgium	Y	Y	Royal decree bird protection (1981)	Y	Y	Y	?			Ministry of Environment
Denmark	Y	Y	The game act	Y	Y	Y				Ministry of Environment
France	Y	Y	National Law (1976)	Y	Y	Y	Max fine 9000 €+ 6 months of prison			Ministry of Environment
Germany	Y	Y	National framework and Länder legislation	Y	Y	Y				Ministries in charge of Nature protection of Lower Saxonia and Schleswig-Holstein
Morocco	In preparation	Y	Decree of the Minister of Agriculture (3 November 1962) dealing with permanent hunting code	Y	Y	Y	4000 to 14000 dirhams and imprisonment from 2 to 6 months			Haut Commissariat aux Eaux et Forêts et à la Lutte Contre la Désertification

Netherlands	N	Y	Natuurbeschermingswet 1998	Y	Y	Y	Fine			Ministry of Agriculture, Nature and Food Quality
Portugal	Y	Y	Decret-Law 140/99	Y	Y	Y				ICNB
Spain	Y	Y	National: Law 42/2007 for Nature Heritage and Biodiversity in Spain Andalucía: Law 8/ 2003 for fauna and flora	Y	Y	Y	Fine of between 601,02 and 60.101,21 euros			Ministry of Environment Regional Ministeries of environment
United Kingdom	N	Y	Wildlife & Countryside Act, 1981	Y	Y	Y	£5,000			Laws are passed by Parliament
Gambia		Y	Biodiversity /wildlife Act 2003	Y	Y	Y	Fine or 1 year imprisonment			Department of Parks and Wildlife Management
Luxembourg	Y	Y	Nature protection law 2004	Y	Y	Y	Imprisonment from 8 days to 6 months and fine of 251 to 750,000 Euros, or one of these only			Ministry of Environnement
Senegal	N	Y	Law on Nature Protection	Y	N	N				Ministry of Environnement

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Country	National Red Data Book	National protection status	Under what law is the species protected	Is Spoonbill legally protected from being deliberately killed?	Is Spoonbill legally protected from egg harvest?	Is Spoonbill legally protected from nest destruction?	What are the penalties for?	Who is the highest national authority for protection of birds?
Albania	Y	Y	hunting and wildlife protection (1994)	Y	Y	Y		Ministry of Environment, Forests and Water Administration
Austria	Y	Y	Nature conservation legislation	Y	Y	Y		
Bosnia & Herzegovina	In progress	Y		Y	N	N		
Bulgaria	Y	Y	Bulgarian Biodiversity Law	Y	Y	Y		Ministry of environment and waters
Croatia	Y	Y	Nature Protection Act, Official Gazette 70/2005	Y	Y	Y	32,400 HRK (ca 4,300 eur)	Ministry of culture, Dpt for Nature Protection
Czech Republic	Y	Y	Nature Conservation Act No. 114/1992	Y	Y	Y	max. 1 million Czech crowns (i.e. ca. 35.000 Euros)	Ministry of Environment
Greece	Y	Y	EU 79/409 Bird Directive	Y	Y	Y	It depends on the occasion and is up to the court decision. No occasion is known up to now.	Ministry of Rural Development and Food

Hungary	Y	Y	13/2001. (V.9.)	Y.	Y	Y	Money penalty (500,000 HUF= 2,000 Euros) per individual and prison.	Ministry of Environment and Water.
Italia	Y	Y	National law 157 11/02/1992 so called "Hunting law"				Penal act	Ministry of Agriculture, Ministry of the Environment
Moldova	Y	Y	Law for protected state of natural territory (Annex 3). 16.07.1998	Y	Y	Y		Ministry for Protection of Environment and Natural Ressources
Montenegro	N	Y	Law for protected rare and endangered plant and animal species (1981 and 2006)	Y	Y	Y	Money penalty and prison	National Institute for Protection of Nature and Ministry for environment of MNE
Romania	Y	Y	HG457/2007	Y	Y	Y	Fine to be paid for disturbance and deliberate killing, but not a cumulative penalty, ca. 135 euro/case.	Ministry of Environment and Rural Development
Serbia	N	Y	Decree on Protection of Natural Rarities 1993; Law on Hunting 1993	Y	Y	Y	60000 Serbian dinars (750 EUR)	Ministry of Protection of Environment
Slovakia	Y	Y	543/2002 Z.z.	Y	Y	Y	100000 Sk/ 1 ind.	Ministry of Environment

Turkey	Y	Y	The Hunting Law (4915), The Regulation on Conservation Wetland	Y			Penalties	The Ministry of Environment and Forestry (The General Directorate of Nature Protection & National Parks).
Ukraine	Y	Y	Law on the Red Data Book of Ukraine	Y	Y	Y	23000 HRN (2600 \$US) for killing 1 individual.	Ministry for Environment and Nature Protection

Country	National Red Data Book	National protection status	Under what law is the species protected	Is Spoonbill legally protected from being deliberately killed?	Is Spoonbill legally protected from egg harvest?	Is Spoonbill legally protected from nest destruction?	What are the penalties for?			Who is the highest national authority for protection of birds?
							Illegal killing	Egg harvest	Nest destruction	
Algeria	N	Y	Décret n° 83-509 du 20 Août 1983 relatif aux espèces animales non domestiques protégées. loi n°04-07 du 14 Août 2004 relative à la chasse, article n° 93	Y	Y	Y	10 000 à 100 000 Dinars			Direction Générale des Forêts Ministère de l'Agriculture et du Développement durable (MADR)
Cameroon	N	N								Ministry of Forestry and Wildlife
Chad		N								
Cyprus	N	Y	Law 152(1) 2003, Annex VI	Y	Y	Y	2 years in prison and/or 3,400 Euros			Ministry of Interior
Israel	Y	Y	the law of Wildlife protection which cover all species of terrestrial vertebrates	Y, all species in Israel, but the pests	Y, all species in Israel, but the pests	Y, all species in Israel, but the pests				Israel Nature & Parks Authority (NPA) – "Rashut HaTeva Ve-Haganim"

Jordan	N	Y	All wild birds are protected	Y	N	N	N	N	N.	Ministry of Agriculture, Royal Society for the Conservation of Nature
Kenya	N	Y	Kenya Wildlife Act	Y			Fine and imprisonment-for specifics refer to the act			Kenya Wildlife Service
Lebanon	N	N		N	N	N	N	N	N	Ministry of Environment
Libya	N	Y	Law No 15/2003 on protection and improvement of the Environment. Law No 8 of 1968 on hunting of wild animals	Y	n.a.	N	Paying a fee on each individual			Environment General Authority EGA
Macedonia FYR	N	Y	Law on hunting	Y	Y	Y				Ministry of Environment and Physical Planning of RM
Mali	N	N	N	N	N					
Malta	N	Y	National and EU	Y	n.a.	n.a.	Depends on whether it is a 1 st or 2 nd etc offence. Penalties not currently sufficient to act as a deterrent.			MEPA
Niger	N	Y	Law 98/07							Ministère des Eaux et Forêts
Nigeria	N	Y								
Poland	N	Y								
Slovenia	N	Y								

Tunisia	N	Y	Ministry of Agriculture and Water Resources Law of 24 August 2006 on the organisation of hunting in the 2006/2007 hunting season (Ministerial Decree renewed each year, which always mentions the Spoonbill as a protected species).	Y		.	Law N° 2005-13 of 26 January 2005, complements the Forestry Code, states: Imprisonment for 6 to 16 months. Fine from 500 to 5000 Tunisian dinars.	n.a.	n.a.	Ministry of Agriculture and Water Resources – General Direction of Forest. The National Agency for Protection of the Environment (ANPE) and the Agency for Protection and Management of the Coastline (APAL), both of which come under the Ministry of the Environment.
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P. l. major

Country	National Red Data Book	National protection status	Under what law is the species protected	Is Spoonbill legally protected from being deliberately killed?	Is Spoonbill legally protected from egg harvest?	Is Spoonbill legally protected from nest destruction?	What are the penalties for?			Who is the highest national authority for protection of birds?
							Illegal killing	Egg harvest	Nest destruction	
Armenia	Y	Y	Fundamentals of Republic of Armenia Legislation on Nature Protection, adopted by the Supreme Council of the Republic of Armenia on April 25, 1996.	Y	Y	Y	Law on penalties for compensation of damages to flora and fauna as a result of violation of environmental legislation. 3 May, 2005 100,000 AMD (210 Eur)			Ministry of Nature Protection of the Republic of Armenia
Azerbaijan	Y	Y	Law on Protection of Animals; Law on Protected Areas	Y	Y	Y	300 conventional units = 150AZN (New Azeri Manatas, about 176USD) per individual or nest or clutch			Ministry of Ecology and Natural Resources
Iran	N	Y	DoE's Hunting and Capturing legislation	Y	Y	Y	13 \$	Calculated according to the number of damaged eggs (4.3 \$ per egg)		DOE
Iraq		N	No law	N	N	N	N	N	N	Ministry of Environment Ministry of Higher Education and Scientific Research Some local authorities

Kazakhstan	Y	Y	The law on protection, reproduction and use of wildlife	Y	Y	Y	about USD 1800	USD 900 per one egg	USD 90 per one nest (without eggs, and for eggs – separately)	Committee of Forestry and hunting of Ministry of Agriculture of Republic of Kazakhstan
Kuwait	N	Y	Anti-Shooting Law	Y	N	N	Fine/Imprisonment			Ministry of Interior (enforcement of anti-shooting law)
Russia	Y	Y	Federal Act on Wildlife; Decision of the Government of the Russian Federation on Red Data Book	Y	Y	Y	21,600 Rus Roubles			Ministry of Natural Resources
Syria	In progress	Y								
Turkmenistan	RDB 1st edition (1985), 2 edition (1999) was not included	Y	The Regulation “On Hunting and Hunting Facilities Maintaining” (1995)	Y	Unknown	Unknown				Ministry of Nature Protection of Turkmenistan
Uzbekistan	Y	Y	Law of Republic of Uzbekistan on protection and use of fauna (1997)	Y	Y	Y	150 minimal rate of salary for residents or 1898 US \$ and 3,000 US \$ for foreign people	50% of birds cost per each egg	450 minimal rate of salary per each nest or 5694 US \$	State Committee for Nature protection

Country	National Red Data Book	National protection status	Under what law is the species protected?	Is Spoonbill legally protected from being deliberately killed?	Is Spoonbill legally protected from egg harvest?	Is Spoonbill legally protected from nest destruction?	What are the penalties for?			Who is the highest national authority for protection of birds?
							Illegal killing	Egg harvest	Nest destruction	
Belarus	N	N	Wild animals protection Law							Ministry of Nature
Georgia	N	Y	There is no special protection for the species, except the general protection under the Law of Georgia on Wildlife.	Hunting is prohibited. In Georgia hunting species (species allowed for hunting) are listed in the Order N512	All bird species, except the hunting species, as well as their egg harvesting are under protection of the Law of Georgia on Wildlife and Order N512 of the Minister of Environment on "Taking off the Wildlife Objects		Criminal Code and Administrative Code Georgia define penalties for illegal killing : 50 – 500 GL (approximately 30 – 300 USD)			Ministry of Environment Protection and Natural resources
Oman	?	Y	?	Y	n.a.	n.a.				
Tajikistan	N	Y	Law "On protection and use of the animal world" (1994)	Yes. However, enforcement of this law is close to in-existent.						
United Arab Emirates	N	Not protected	N	N	N	N				EAD

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Country	National Red Data Book	National protection status	Under what law is the species protected?	Is Spoonbill legally protected from being deliberately killed?	Is Spoonbill legally protected from egg harvest?	Is Spoonbill legally protected from nest destruction?	What are the penalties for?			Who is the highest national authority for protection of birds?
							Illegal killing	Egg harvest	Nest destruction	
Djibouti		N		N	N	N	Undefined			Ministère de l'Habitat, de l'Urbanisme, de l'environnement et de l'Aménagement du Territoire
Eritrea	N	N	there is a Proclamation by Ministry of Fisheries	N	N	N	N	N	N	Ministry of Agriculture, Forestry & Wildlife Dept.
Egypt	N	Y	Law 102 for 1983, Law 4 for 1994.	Y	Y	N	According technical equation which calculate the international price of Bird, multiplied by number of possible chicks in life time of birds + costs for raising in captivity. But this is not clearly stated. In the law it mentioned penalty of min. 1000 LE and max. 5000 LE for any of these violations. The decision will be according to The Judge view.			The Egyptian Stat Ministry of Environmental Affairs, Egyptian Environmental Affairs Agency.
Saudi Arabia	N	Y		Y	Y	Y				National Commission for Wildlife Conservation & Development
Somalia	N	Y	N	N	N	N				No Ministry
Sudan	N	Y	Wildlife law	Y	Y	N				Wildlife Administration
Mauritania	No national red list	Y	Loi 2000-024 du 19 /01/2000	Loi 2000-024 du 19 /01/2000	Loi 2000-024 du 19 /01/2000	Loi 2000-024 du 19 /01/2000	Fine	Fine	Fine	President of RIM

Annex 5. Spoonbill research, conservation and attitude towards the species in the different countries

P. l. leucorodia (Atlantic)

Countries	What research has been conducted on the Spoonbill over the past 10 years?	What conservation efforts have there been for the Spoonbill over the past 10 years?	What is the general attitude of the public toward the Spoonbill?	What is the general attitude of the conservation authorities toward the Spoonbill?
Belgium	Census and monitoring breeding populations.	N	Unknown	Positive
Denmark	Census and monitoring breeding population	No specific action, but all sites are protected as wildlife reserves with no public access. All four breeding sites are also designated as Natura 2000 and Ramsar sites	Positive (though most people probably don't know this bird).	Positive
France	- Annual monitoring of the national breeding population, population dynamics at Grand Lieu and Brière, migration (colour ringing, satellite transmitter). -Studies on the stop over (period, duration, origin of birds, ecology and choice of site), studies on the feeding ecology and ecology of prey species.	- No disturbance in the pioneer colony of Grand Lieu. - Dike restoration and hydraulic management. - Creation of hunting reserve. - Management of ponds and islands and management of the water level in the Moëze-Oleron nature reserve.	Good	Good but water level conflicts in wetlands did not really take Spoonbills into account (ex Grand-Lieu, Brière).
Germany	Monitoring of Breeding Population and breeding success and colour-ringing of nestlings.	Protecting breeding sites.	Good	Good
Morocco	Monitoring of numbers on two sites: Merja zerga and Sidi Moussa-Walidia Lagunas. Winter census.	No specific action but all the sites used by the species are designated as Ramsar sites (2005).	In general the public does not know this species, with the exception of the few naturalists in the country, or of school-children with whom enlightened teachers have made educational campaigns.	The authorities concerned (the High Commission for Water and Forests and for the Fight against Desertification) are conscious of the threats faced by many species including Spoon-

				bill. Their conservation strategy is based on preparation and implementation of management plans for a number of sites identified as protected areas.
Netherlands	Survival rate. Feeding ecology. Use of feeding areas.	Breeding sites protected. Water purification.	Highly beloved	Highly beloved
Portugal	N	Establishment of protected areas	Good	Good
Spain	In Andalusia (=98% of the population) conservation and management Plan. Coordinated monthly censuses (also aerial), monitoring all breeding colonies, ringing. Study of survival, feeding and reproductive ecology, migration and dispersion, wintering, stopover ecology, study of contaminants, evaluation of sanitary state and mortality. In other areas: monitoring of breeding colonies, International Waterbird count in January and Regular National censuses, Feeding ecology, reproduction biology, effects of pollutants on reproduction, migration biology.	UE sentence for protection of Santoña Marshes, Protection of nearly all main wetlands in the country as SPA, Saving nest from floods, Monitoring migration in principal stopover sites Avoid disturbances in wetlands, stablish quite areas inside Santoña marshes, improve roosting at resting areas during hide tide, educational work and media promotion of the spoonbills. Protection of wetlands. Reinforcement of the legislation. Management and restoration in breeding colonies, restoration of feeding sites, captive breeding and release of young birds. Web page dedicated to spoonbills observations (by ornithologist volunteers).	(only within people who loves nature; not too much people in Spain) It's known as very sensible and endangered species. As any other (not common) species, Spanish society didn't know it. This bird is especially emblematic of Doñana, but for sure part of the Spanish society does not know it as it occurs also with lynx or flamingos.	It's known as a species with not too large populations, very concentrated and very sensitive to habitat alteration. There are several examples of wetlands that are used by spoonbills in last decade which have improved its social value because of this species using (Urdaibai, Los Canchales, O Grove, Cádiz Bay) In Andalusia: there is a high concern for this vulnerable species, which has lead the government to carry out a specific

				conservation and monitoring effort every year since 1990. The species is considered as vulnerable but not enough endangered and too localised to require a national conservation strategy.
United Kingdom	None that JNCC is aware of.	The species benefits from high levels of protection of most UK Estuaries (most major sites are EU Special protection Areas and Ramsar sites). See: http://www.jncc.gov.uk/page-1417 .	Positive	Positive
Gambia	African Water Bird Census but not focused on the species.	Part of the overall biodiversity conservation efforts.	No known negative attitude.	Form part overall national species protection efforts.
Senegal	African Waterbird Census.	Site protection.	The public respects laws in general and the culture for nature.	They apply laws and look after the natural resources.

***P. l. leucorodia* (Continental)**

Countries	What research has been conducted on the Spoonbill over the past 10 years?	What conservation efforts have there been for the Spoonbill over the past 10 years?	What is the general attitude of the public toward the Spoonbill?	What is the general attitude of the conservation authorities toward the Spoonbill?
Albania	Inventory of breeding birds. Midwinter census.	Designation of key sites as Protected Areas.	Indifferent	Indifferent
Austria	Surveys of breeding pairs only.		Positive	Positive
Bosnia & Herzegovina	Monitoring of Karst Poljes as Livanjsko Polje by Euronatur since 2002.			
Bulgaria	Monitoring of numbers of two of the colonies (Poda and Srebarna).	Education campaign. Implementation of the Srebarna Reserve management plan, Implementation of Persina Natural Park management plan by the park authorities, Implementation of the Poda Protected Site management plan by BSPB.	Indifferent to positive	Neglected by most conservation authorities except BSPB.
Croatia	Colour ringing programme is running since 2003 – 344 birds CR ringed. Monitoring in Krapje Dol and Nature Park Lonjsko Polje.	Water management of the main Spoonbill colony each year, buffer zone management and enlargement (ECONET – Euronatur), establishment of extensive grazing scheme (Podolci Cows).	Generally positive, cooperation between the ZOO Zürich, Lonjsko Polje and Euronatur to promote the species.	Generally positive, Symbol of the Nature Park Lonjsko Polje and flag-ship species.
Czech Republic	Ringling of juveniles in nests.			
Greece	None	Not something especially for this species. Other actions such as the reflooding of the drained Drana lake in the Evros Delta probably affect positively this species among many others.	Neutral or positive	Neutral or positive
Hungary	Colour-ringing project from 2003 and Cs. Pigniczki has studied ecological parameters from 2006.	Wetland restoration and maintenance, consultation with the local fish farm owners.	Positive, no public conflict. Spoonbill will be the Bird of the year 2008.	It is a highly protected bird in Hungary. It is regarded as a flagship species in wetland protection.

	Colony site selection of the Spoonbill in the Hortobágy NP (in: Végvári 2003: PhD Thesis).			
Italy	Colony census, colour ringing & reading at the 2 major colonies.	Nothing different to other colonial waterbirds.	Positive	Positive, but not different to other colonial waterbirds.
Moldova	Surveys of breeding pairs only	Creation of scientific reserve "Lower Prut"	Positive	Positive
Montenegro	Monitoring of wetlands, special programme in Bojana Delta (Center for Protection and Research of Birds of Montenegro, Euronatur).	Colony site and feeding places identified as EMERALD sites, proposed for protection in draft Physical Plan.		
Romania	Colony surveys, Colour-ringing for migration studies, wintering bird surveys.	Designating the colonies as protected areas (16 colonies proposed, 13 designated).	Positive	Indifferent
Serbia	Intensive research on the species distribution, breeding numbers, movements (by colour ringing each year) starting from 2003.	Proposal for the protection of Tamis River valley, the most important site during migration. Intensive communication with the fishpond owners and managers.	Positive: people recognize the species and aesthetically it is very attractive.	Very positive.
Slovakia	Basic monitoring of population, access to breeding sites is limited from year 2000, because the sites are in private property.	In 2003 a Special Protected Area was declared (not legally approved by government yet). Limits in land use due to being a part of SPA; ban on aerial spraying of reedbeds. Fishery-environmental schemes were prepared for Iňačovce fishponds (not accepted by fishpond-managers yet). Habitat restoration activities at meadow Ostrovík in SPA Senné – Spoonbills now utilise the site for feeding.	For majority of population the bird is unknown, no negative attitude was found.	Generally accepted as rare species, but no special protection programs were implemented yet.
Turkey	The only breeding population monitoring studies were carried out on Manyas and Bolluk Lakes, furthermore some individual short-	New nesting habitat was created by planting <i>Salix spp</i> in the Manyas Lake.	Positive	General tendency of the authorities is for protection of the species and improve their nesting sites.

	term studies were done to determine the breeding population.			
Ukraine	N	N	Positive	Indifferent
Algeria	Some University studies.	N	Indifferent	Indifferent
Belarus	N	N	Indifferent	Indifferent
Cameroon	N	N	Indifferent	Indifferent
Israel			Positive	Full protection
Jordania	N	N	Mostly unknown	N
Kenya	N	Most of the sites where the Eurasian spoonbill has been recorded are protected legally.	Indifferent	Positive
Libyia	The species was included in results of the winter census of waterbirds 2005-2007 and ongoing likely for the next years.	Several sites harbouring the species are either Protected areas or proposed sites for protection.	Indifferent	Indifferent
Mali	Wintering waterfowl census : WIS 98- 2007- ONCFS : DOEA	Wetland restoration.	Tolerance from fishermen.	Confusion with the African Spoonbill which is protected. This explains the non protection with it.
Macedonia FYR	N	N	Unknown	Not a priority
Malta	N	BirdLife Malta continues to work to protect all bird species from illegal hunting pressures.	The general public is interested in seeing the species when it appears in Malta.	Bird protection laws are still not sufficient and the local law enforcement agencies are under-staffed and under-funded.
Niger	N	N	Unkown	Indifferent
Tunisia	Census, population monitoring, contribution to studies of migrations of the species' populations (ring reading).	Biggest concentrations in Tunisia are in sites declared as IBAs, sites protected by Tunisian legislation and/or proposed Ramsar sites.		

P.I. major

Countries	What research has been conducted on the Spoonbill over the past 10 years?	What conservation efforts have there been for the Spoonbill over the past 10 years?	What is the general attitude of the public toward the Spoonbill?	What is the general attitude of the conservation authorities toward the Spoonbill?
Armenia	None	N	Variable: from ignorant (little familiar species) to negative as a “fish pest” together with herons and cormorants; potentially an attractive taxidermy trophy.	Low to medium interest/attention.
Azerbaijan	Some researches have been conducted under the leadership of E.H. Sultanov in 1997-2000. Special researches on <i>Ciconiiformes</i> have been conducted by E.H. Sultanov and A.F. Jabbarova (2006).	Creation of Aggol and Shirvan National Parks.	Relation quite neutral but in some regions they estimate very high the quality of meat so this species is damaged from illegal hunting.	Medium to high interest/attention.
Iran	No specific research; instead general studies like mid-winter census, site observation and ringing programme applied for all migratory species.	General conservation schemes applied for all migratory species like, Protected Areas legislation, Site Management Planning.	There are no specific public awareness schemes; instead general awareness raising on migratory species, like poster, site brochures.	Protection of its habitat.
Iraq	Ornithological activities are very few.	The species interred to the IBA, KBA surveys that were held by Nature Iraq NI in 2005-2006-2007.	Indifferent	Indifférent
Kazakhstan	N	Ramsar convention.	Nothing special; generally positive or public don't know the species	Nothing special; as to any protected rare species.
Kuwait	N	General protection by Coastguard.	Unknown	Positive
Russia	Monitoring of the breeding colonies and ringing of chicks since 2004 by the staff of Chernyye Zemli NR.	No special efforts. Chernyye Zemli NR is a strictly protected area.	Positive	Positive

Syria	N	N	Unknown	Limited awareness
Tajikistan	N	N.		
Turkmenistan	This species was counted and was included into the monitoring programme of reservation.	N	Positive	Migratory individuals are conserved under the Khazar, Amudarya Reservations and Sarykamyshtskiy game reserve of Gaplanyr.
Uzbekistan	N	Y	Positive	Positive
Georgia	N	N	Unknown	Protection
Oman	N	N	Unknown	Protection
United Arab Emirates	N	N	Positive	Inconnue

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Countries	What research has been conducted on the Spoonbill over the past 10 years?	What conservation efforts have there been for the Spoonbill over the past 10 years?	What is the general attitude of the public toward the Spoonbill?	What is the general attitude of the conservation authorities toward the Spoonbill?
Djibouti	Winter census.	N	Indifferent	Indifferent
Egypt	N	N	Positive	Positive
Eritrea	Study on the number of breeding pairs and wintering over the last three years.	There has been little effort. There is a hope for the near future some sites will be declared as MPA.	Unknown to indifferent	Positive
Saudi Arabia	N	Important sites are now included in the revised protected areas.	Little known.	It should be protected.
Somalia	N	N	Indifferent	Indifferent
Sudan	N	N	Not studied	Indifferent
Mauritania	Winter counts. Ringing started in 2002. Project NM/ RuG/ International Spoonbill Working Group.	Creation of the nature reserve in the Chatt Boul.	Indifferent	A wish for a better monitoring of the species.

Annex 6. Spoonbill national action plan, census and monitoring in the different countries

P. l. leucorodia (Atlantic)

Countries	Is there a national Spoonbill action plan?	Is there a national Spoonbill working group?	Is there a national and specific census?	Is there a monitoring programme in protected areas?	Are there routines for informing the responsible authorities regarding nesting areas and nest sites?
Belgium	N	N	Y	Y	Y
Denmark	N	N	BirdLife Denmark has appointed a volunteer species coordinator (Jan Skriver) who is performing a yearly census.	There is a general state monitoring programme covering a number of species including spoonbill.	Relevant authorities are informed when new sites are detected.
France	N	N	N	N	N
Germany	N	N	N	Y	Y
Morocco	N	There is a project to create a working group with the training of two students and the implication of searchers working on waterbirds in Morocco.	Census during mid-January counts. These counts are coordinated by the Centre for the Study of Bird Migration (CEMO) at the Scientific Institute in Rabat.	A study is in progress at the Science University of Casablanca. This monitoring is being carried out in the wetland complex of the Lower Loukkos near the city of Larache in north-west Morocco. Monitoring at Merja Zerga.	N
Netherlands	Y	Y	N	Y	Y
Portugal	N	N	Y	Y	Y
Spain	There is no national conservation plan but a regional one, in Andalusia where most of the population is found (breeding and wintering).	In Andalusia	Y (volunteers; not official). In Andalusia: every month, Also in some important places like Urdaibai, Santoña and O Grove.	Y	In Andalusia: yes.

United Kingdom	N	N	No specific census but in the breeding season, the species is monitored by the Rare Breeding Birds Panel (RBBP) and in the non-breeding season the species is included in the national Wetland Bird Survey (WeBS).	Generally through WeBS.	Y, through national reporting of RBBP and WeBS.
Gambia	N	N	N	N	N
Senegal	N	Y	Y	Y	N

***P. l. leucorodia* (Continental)**

Countries	Is there a national Spoonbill action plan?	Is there a national Spoonbill working group?	Is there a national and specific census?	Is there a monitoring programme in protected areas?	Are there routines for informing the responsible authorities regarding nesting areas and nest sites?
Albania	N	N	Part of the water-bird census.	N	N
Austria	N	N	Y	Y	Y
Bosnia & Herzegovina	N	N	Generally no but sometimes census of the species made with other species.	With other species.	N
Bulgaria	N	N	N	Only at Poda Protected Site.	N
Croatia	N	N	Y	Y (Kopački rit, Lonjsko polje, Jelas fishponds).	Y
Czech Republic	N	N	N	Y, monitoring programme for existing and proposed SPAs.	Y
Greece	N	N	N	Y. It is carried out by the Hellenic Ornithological Society.	Y
Hungary	Not yet	Y	Y	Y	Y
Italy	N	N	N	Partial	N
Moldova	N	N	N	N	N
Montenegro	N	N	Y	Y	N
Romania	N	Y	N	N	N
Serbia	N	Y	Y	N	N
Slovakia	N	N	N	N	Y

Turkey	Not yet	Not yet	Regularly Mid-winter waterfowl counts carried out coordinated by the Nature Society and supported by Ministry of Environment & Forestry.	With other species	Y
Ukraine	N	N	N	More or less regularly counted in Lebyazhi Islands (a nature protected area).	N
Algeria	N	N	N	Y	N
Belarus	N	N	N		
Cameroon	N	N	N	N	N
Chad	N	N	N		
Israel	N	N	Y	Partly	Y but no relevant.
Jordan	N	N	N	Y, for birds in general.	
Kenya	N	N	N	Y for all species.	Y
Libya	N	N	Y	Y	N
Macedonia FYR	N	N	N	Partly, Prespa Lake.	N
Mali	N	Y but not functional.	With other census ONCFS/ WIS.	Y	N
Malta	N	N	N	N	N
Niger	N	N	N	N	N
Tunisia	N	N	With other species	Y, there is a monitoring programme of IBAs.	N

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Countries	Is there a national Spoonbill action plan?	Is there a national Spoonbill working group?	Is there a national and specific census?	Is there a monitoring programme in protected areas?	Are there routines for informing the responsible authorities regarding nesting areas and nest sites?
Armenia	N	N	Midwinter waterbird count.	Y, Basic monitoring.	N
Azerbaijan	N	N	N	Y, for all bird species.	N
Iraq	N	N	N	N	N
Iran	N	N	No, but mid-winter census.	N	Y
Kazakhstan	N	N	N	Y, for all bird species.	N
Russia	N	N	N	Y	Y
Syria	N	N	N	N	N
Turkmenistan	N	N	N	General Monitoring programme "Letopis Prirody" is conducted in Khazar, Amudarya and Gaplanyr Reserves.	N
Uzbekistan	N	N	N	Y. Only for Zapovednik.	N
Kuwait	N	N	N	N	N
Georgia	N	N	N	N	N
Oman	N	N	N	Y, for all bird species.	N
Tajikistan	N	N			
United Arab Emirates	N	N		N	Y

P. l. archeri and *P. l. balsaci*

Countries	Is there a national Spoonbill action plan?	Is there a national Spoonbill working group?	Is there a national and specific census?	Is there a monitoring programme in protected areas?	Are there routines for informing the responsible authorities regarding nesting areas and nest sites?
Djibouti	N	N	N	N	N
Egypt	N	N	N	Y, for all bird species.	N
Eritrea	N	N	N	N	N
Saudi Arabia	N	N	N	N	Y
Somalia	N	N	N	N	N
Sudan	N	N	N	N	Y
Mauritania	N	N	Y	Y	N

Annex 7. Knowledge of habitat and diet, and occurrence of the Spoonbill in Protected Areas, BirdLife Important Bird Areas and Ramsar sites.

Protected areas include national parks and reserves, regional parks and reserves, and private reserves.

Staging and wintering

***P. l. leucorodia* (Atlantic population)**

Countries	Site	Numbers	Water quality	Prey species	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Belgium	'Blokkesdijk' at Antwerpen	10-30 staging				Nature reserve	Y	N	-
	'Gentse Kanaalzone' near Gent	10-30(max. 60-70) , during the last years < 10 (staging)				Industrial development	Y	N	Suitable feeding habitats largely disappeared.
	'Zwin area' at Knokke	0-2 (10-50, during the last years max. 10-15, staging)	Mainly brackish	Probably small fish	?	Nature reserve	Y	Y	Suitable feeding habitats largely disappeared.
	'IJzermonding' at Nieuwpoort	0-1 (3-8, staging)				Nature reserve	Y	N	-
Denmark	Vejlerne	(2-10, 2007)				Protected	Y	Y	
	Ulvedybet	(1-3, 2007)				Protected	Y	Y	
	Skjern Å	(2-10, 2007)				Protected	Y	Y	
	Vadehavet	(1-5, 2007)				Protected	Y	Y	Summer floodings.
France	Moeze Oleron	7 (2006)	Fresh, brackish and sea water	<i>Palaemonetes varians</i> , <i>Gasterosteus aculeatus</i> , <i>Gambusia affinis</i> , <i>Cyprinus carpio</i>	Night and early in the morning	Nature Reserve	Y	N	Quality of the fresh water; disturbance.

Ile de Ré	12-18 (2006-2007)					Private + Nature Reserve (SPA and N2000 area)	Y	Y	Human disturbance.
Baie de Somme	12-21 (2006-2007)	Fresh and brackish water	<i>Palaemonetes varians</i>	Night and early morning		Nature Reserve	Y	Y	
Camargue (Tour du Valt, Vigueirat)	175 (2007)	Brackish, fresh and sea water	Fishes, shrimps	Night, day		Protected	Y	Y	
Seine Estuary	2 (2007)	Fresh and brackish water	<i>Palaemonetes varians</i> , Sticklebacks	Night, day		Nature Reserve	Y	N	Sediment, disturbance, pollution, industry.
Reserve d'uer Sarzeau	55 (2006)	Brackish water	<i>Palaemonetes varians</i> , fishes	Day and probably night		Regional protection	N	N	
Réserve Naturelle des Marais de Séné	32-37 (2006-2007)	Brackish and sea water	<i>Palaemonetes varians</i> , <i>Gasterosteus aculeatus</i> , <i>Anguilla anguilla</i> (marginal), flatfish (marginal)	Probably both day and night feeding, low tide feeding in estuary		Nature Reserve	Y	Y	Hydraulic management, disturbance. Need new estimation of food resource.
Marais de Pen en Toul/ Larmor-Baden	29 (2006)	Brackish	<i>Palaemonetes varians</i> and small fishes	Probably both day and night feeding			N	N	Small area (20 ha), habitat quality (food accessibility) depending on water level. Effect of hunting disturbance nearby not well estimated.
Rivière Pont L'Abbé	23-55 (2002-2006)	Salt water	<i>Palaemon serratus</i> , <i>P. elegans</i> , <i>Aphia minuta</i> , <i>Gobiusculus flavescens</i> , <i>Carcinus maenas</i> , <i>Syngnatus lumbriciformis</i>			Nature Reserve	N	N	Human disturbance.
Domaine de Certes/ Bassin d'Arcachon	151-162 (2006-2007)	Brackish	<i>Palaemonetes varians</i> , Sticklebacks	According to the tide		Regional protection	N	N	Tourism.

	Marais d'Olonne, St Denis du Payré	4 (2006-2007)	Brackish, Freshwater	Shrimps, Small fishes		Nature reserve (partially)	Y	N	Tourism, over-fishing?
Germany	Hauke-H-Koog	160 (staging)	Sea water	Crangon, stickle-backs, other fishes	Day, night		Y	N	
	Meldorfer K, Süd	60 (staging)	Sea water	Crangon, stickle-backs, other fishes?			N	N	
Morocco	Tahaddart		Brackish water				N	N	Breeding during one year only.
	Merja Bargha	47 (1995-2005)				Nature Reserve	Y	N	Intensive agriculture and cattle rearing. Water exploitation from lakes, pollution and eutrophication, habitat lost through cultures near lake. Cutting vegetation. Wildfowl hunting.
	Sidi Moussa-Oualidia Lagoonas	63 (1995-2005)				Nature Reserve	Y	Y	Intensive agriculture, cutting vegetation and overgrazing. Salt exploitation. Oyster farming. Shellfishing. Poaching. Human settlement.
	Khnifiss lagoon	62 (1995-2005)				Nature Reserve	Y	Y	Waste increase and disturbance due to many activities: salt exploitation, tourism activity, fishery and aquaculture.
	Embouchure de l'Oued Loukkos	32 (1995-2005)				Nature Reserve	N	Y	Disturbance, hunting and salt exploitation.

	Merja Zerga	33 (1995-2005)				Nature Reserve	Y	Y	Agriculture, Vegetation cutting and overgrazing. Poaching. Overfishing, overshellfishing.
	Marais du Bas Loukkos	20 (1995-2005)				Nature Reserve	N	Y	Draining of wetlands, pollution. Waterfowl hunting.
	Baie d'Ad-Dakhla	22 (1995-2005)				Nature Reserve	Y	N	Increase of fishery and tourism activities, urban and industrial settlement, and bird disturbance within the breeding season.
	Marais de l'wad Smir	17 (1995-2005)					Y	N	Drainage, grazing and plant cutting for commercial use (<i>juncus</i> , <i>typha</i> , <i>phragmites</i>); Development of the town M' diq and of tourism structures; Reject of polluted water without treatment; Increase of wastes. Building of a dam and of a pleasure harbor near the mouth of the Oued Smir, which will limit freshwater arrival and increase marine water

	Merja de Sidi Bou Ghaba	11 (1995-2005)				Nature Reserve	Y	Y	Bird disturbance; Eutrophication and pollution of the borders by solid wastes; Decrease of the surface of the lake due to silt deposit and increase of the vegetation.
	Embouchure de l'wad Souss	11 (1995-2005)				National Park	Y	Y	Urban pollution of the oued Souss. Bird disturbance within the year and destruction of the habitat.

Countries	Site	Numbers	Water quality	Prey species	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Netherlands	All freshwatersites			Sticklebacks	Day & night	Protected			Pollution by agriculture.
	Tidal areas			Shrimps	Day & night	Protected			Overfishing shrimps.
	farmland			Sticklebacks	Day	Not protected			Agro-disturbance, Maintaining ditches Pollution by agriculture.
Portugal	Lagoa dos Salgados	10-50	Freshwater			Not protected	N	N	Golf course, water pollution.
	Tejo estuary	150-300	Sea and freshwater	Shrimps, fish		Protected	Y	Y	Human pressure Lisbon 2 million inhabitants, rice fields and cattle grazing.
	Sado estuary	50-150	Sea and freshwater	Shrimps, fish			Y	Y	
	Estuario do Arade	10-50					N	N	
	Taipal marsh	4-10	Freshwater	Crawfish (<i>Procambarus clarkia</i>), shrimps	?	Protected	Y	Y	
	Paul do Boquilobo	(25 bp-2006)	Freshwater	Crawfish (<i>Procambarus clarkia</i>), shrimps			Y	Y	House building. Water management.
	Ria Formosa	300-500	Brackish				Y	Y	
	Castro Marim	50-150	Saltpans Former saltmarshes	Fish, shrimps	Day & night	Partly protected	Y	Y	Tourism. Farming activities.

Spain	Donaña	2200 (passing autumn 2006) 500-1000 (wintering)	Fresh and brackish	Crawfish (<i>Procambarus clarkia</i>), Shrimps	During the breeding period, both day and night; otherless mainly dusk/dawn and night	National & Natural Parks	Y	Y	Drought
	Marismas de Santonaya Noja	27 ± 12 (1585 ± 618 (autumn)) 247 ± 35 (spring))	Brackish and marine water	<i>Pomatochistus</i> , Crangon	Both, at least during migration	Natural Park, SPA	Y	Y	Recreational shellfishing, moderate-high level of human disturbances during the length of the stopover in autumn. Boats and the local 'fiestas' in September. Significant reduction in the amount of fresh water input by the main river from June till August.
	Isla Cristina Marshes	80 (passing autumn 2006) 50-150 (wintering)	Brackish and salt water	Fishes and shrimps	During the breeding period, both day and night; otherless mainly dusk/dawn and night, depending on the tidal schedule	Protected area (Paraje Natural)	Y	Y	Disturbance. Land transformation for urbanistic purposes.

Ensenada de O Grove	50-150	Mainly marine (salt) water	<i>Palaemon serratus</i> , <i>Carcinus maenas</i> , Gobidae (<i>Pomatoschistus</i>)	Tidal area (both)	SPA; Protected wetland (regional protection category)	Y	Y	Disturbance. Land transformation for urbanistic purposes.
Odiel marshes	520 (passing autumn 2006) 300-500 (wintering)	Brackish and salt water	Small fishes (<i>Fundulus</i> , <i>Pomatoschistus</i> , <i>atherina</i>) Shrimps (<i>Palaemonetes sp.</i>)	During the breeding period, both day and night; otherless mainly dusk/dawn and night, depending on the tidal schedule	Protected area (Paraje Natural)	Y	Y	Industrial activity (contamination). Human infrastructures. Tourism. Decreasing food quality and availability.
Cadiz Bay	500-1000 (wintering)	Brackish and salt water		During the breeding period, both day and night ; otherless mainly dusk/dawn and night, depending on the tidal schedule	Natural Park	Y	Y	Disturbance. Industrial activity. Land transformation for urbanistic purposes.
Urdaibai	300 – 500 birds (autumn)				SPA	Y	Y	High level of human disturbances during the length of the stopover in autumn. Mainly boats.

	Los Canchales Dam (Guadiana river)	5 (40-80 birds (regularly sep) 10-30 birds (reg. feb-mar)	Freshwater		Daylight, preferring sunshine and sunset	Not protected	N	N	Changing levels of water depending on 'drinking' water needs of Badajoz population (150,000 people).
	Bahia de Santander	3					Y	N	Disturbance.
	Embalse del Ebro	0 (25 staging)				SPA	Y	N	Disturbance.
	Delta del Ebro	10-50				SPA	Y	Y	
	Salinas de San Pedro del Pinar	10-50				SPA	N	N	
	Salinas de Santa Pola	10-50				SPA	Y	Y	
	Oyambre	6 (4-8, staging)					Y	N	Disturbance.
Gambia	Boabolon Wetland Reserve	10-15 (1998-2007)	Brackish and freshwater during raining season		Daylight	National Protected Area	Y	Y	Inadequate data for species protection/conservation.
	Tanbi Wetland Complex	10-12 (1998-2007)				National Protected Area	Y	Y	
	Allahien River Mouth,	10-15 (1998-2007)				Not protected	Y	N	
Senegal	Djoudj National Park	103-921 (1999-2007)	Fresh and brackish water	Fish	Morning, evening	National Park	Y	Y	Invasive plant species.

	Saint-Louis Lagoons	51-2395 (1999-2007)	Brackish and sea water	Fish	Night, morning	Reserve (partially)	Y	Y	Water level fluctuations on the feeding sites and on the resting site (Reserve de Guembeul).
	Trois Marigots	27-35 (1999-2007)	Freshwater	Fish	Morning, evening	Not protected	Y	N	Lack of water during some years, development of the vegetation.

P. l. leucorodia (Continental)

Countries	Site	Numbers	Water quality	Prey species	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Albania	Karavasta	3-24	Brackish		Day	National Park	Y	Y	Illegal hunting.
	Butrint	2-17	Brackish			National Park	Y	Y	Disturbance.
Bosnia & Herzegovina	Bardača	15-50 (2003-2007) staging	Freshwater		Day		Y	Y	This site is private fish farm and this is problem for conservation (conflict of interests).
	Hutovo blato	18 (2000) staging					Y	Y	Not available management plan, illegal hunting.
	Mostarsko polje	21 (2007) staging					N	N	Illegal hunting & degradation of biotopes.
	Livanjsko polje	33 (2007) staging					N	N	Illegal hunting & degradation of biotopes (drainage canals).
Bulgaria	Atanasovsko lake(salina)	1991-2007 : 0-5				Nature reserve (partly)	Y	Y	
Croatia	Donji Miholjac fishponds	3-38 (2002-2007) 19-55 (staging)	Freshwater	Fish, amphibians	Day	No protected	Y	N	Hunting.
	Lonjsko Polje Sava Wetlands	Up to 400 staging / postbreeding (1986 – 1988)		Fish, amphibians, crustacea (?)		Nature Park, (but not the fish farms!)	Y	Y	River regulation for Navigation (dredging), fish farms not protected.

	Kopacki rit – Podunavlje fishponds	4-12 (2001-2002) 100-700 staging/ post breeding.	Freshwater	Fish, amphibians	Day	Protected as Nature park	Y	Y	Fish production ceased in 2005.
	Delta of Neretva river	118 (2003-2006) stop-over	Brackish/sea-water	Fish, amphibians	Day	Partly protected	Y	Y	Hunting and disturbance. Enlargement of the Port of Ploce.
	Nasicka Breznica fishponds	4-33 (2006-2007) 120 staging	Freshwater	Fish, amphibians	Day	Not protected	Y	N	Hunting, fish production abandoned on one third of the site.
	Poljana fishponds	2004 104 staging	Freshwater	Fish, amphibians	Day	Not protected	N	N	Hunting and disturbance.
	Jelas fishponds	16 (2007)	Freshwater	Fish, amphibians	Day	Protected	Y	N	Hunting and disturbance.
	Grudnjak fishponds	2005 7 staging	Freshwater	Fish, amphibians	Day	Not protected	Y	N	Hunting and disturbance.
	Island of Pag	> 40 staging				Partly protected	N	N	Poaching and disturbance.
	Vransko Jezero	37 (2004 – 2005) staging				Nature Park	Y	N	Disturbance.
	Kninsko Polje	23 staging (2007)				Not protected		N	Disturbance.
Greece	Axios delta	32-35	Brackish water		Partly tidal	SPA	Y	Y	Pollution.
	Lake Kerkini		artificial, Freshwater			Not protected, SPA.	Y	Y	
	Messolonghi lagoon	166-219 (1999-2005)	Brackish water			SPA	Y	Y	
	Kalamas Delta	86-101 (1999-2006)	Brackish water			SPA	Y	N	
Hungary	Büdös-szék, Pusztaszer	200-300 (staging)	Alkali lake	Frog, invertebrates, fish	Day	Protected	Y	Y	Dryness.
	Péteri-tó	1200 (2007) (staging)	Former fishpond	Fish was seen	Day	Protected	Y	N	Dryness.

	Szeged Feher to	500 (staging)	Artificial lake	Fish, frog, invertebrates	Day	Protected	N	Y	Fish farming.
	NP Hortobagy	1700 (2006) staging	Lakes, wetlands	Frog, fish, invertebrates	Day	Protected	Y	Y	Recreation.
Italy	Porto Corallo	10 (2000)					N	N	
	Stagno di Cagliari	83 (2000)				Protected	Y	Y	Pollution, disturbance, free ranging dogs.
	Biviere di Gela	16 (2000)				Partially protected	Y	Y	
	Biviere di Lentini	56 (2000)				Partially protected	N	N	
	Augusta	8 (2000)					N	N	
	Saline di Trapani	37 (2000)				Protected	N	N	
	Saline di Marsala	121 (2000)				Protected	N	N	
	Laguna di Venezia	22 (2000)				Partially protected	Y	Y	Hunting.
	Saline di Tarquinia	9 (2000)				Protected	N	N	
	Valli di Argenta	8 (2000)	Fresh water	<i>Procambarus clarkia</i>	Day	Protected	Y	N	
	Saline Margherita di Savoia	116 (2000)				Protected	N	Y	
	Orbetello e Burano	83 (2000)				Protected	N	N	
	Lago di San Giuliano-	5 (2000)					N	N	
	Oristano e Sinis	6 (2000)				Mostly protected (Marine reserve, SPA)	N	N	Disturbance, hunting, cormorant shooting.
	Ravenna coastal marshlands	150-200 (2007) staging	Freshwater	<i>Procambarus clarkia</i>	Day	Protected	N	N	Hunting on surrounding areas.

Montenegro	Solila Tivat	7 (2004 – 2007) – stop over site	Sea water		Day	Protected	Y	Partly	Disturbance.
	Bojana Delta – Sltfans Ulcinj	112 (2203 – 2007) (staging, summering)					Partly		Hunting, poaching, disturbance.
Slovakia	Medzi- bodrožie		Freshwater			SPA	Y	N	Lesser threat, but lack of suitable breeding sites.
	Senné		Freshwater		all the day, espe- cially in morning	SPA	Y	N	Disturbance, loss and deg- radation of shallow water bodies.
	Medzi- bodrožie		Freshwater			SPA	Y	N	Lesser threat, but lack of suitable breeding sites.
Ukraine	Danube Delta	337 (staging)					Y	Y	
	Eastern Sivash	1-117 (staging)					N	N	
	Central Sivash	8-128 (staging)					N	N	

Countries	Site	Numbers	Water quality	Prey species	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Algeria	Marais de la Mekhada	14-59 (1999-2007)	Freshwater		Day		Y	Y	Reject of wasted domestic waters. Silting in of water supplies.
	Garaat El Haoues	8-35 (2006-2007)					N	Y	
	Chott Ech Chergui	2-11(2002 - 2003)					N	Y	Sanding inthe wetland due to desertification, poaching.
	Garaet El Tarf	2002 : 2					N	Y	Reject of wasted domestic waters, poaching.
	Lac Fetzara	2001 : 12					Y	Y	Reject of wasted waters. Drainage of the lake.
	Lac Tonga	32-46 (1999-2000)				National Park	Y	Y	Poaching.
Cameroon	Plaine d'inondation du Logone	2-3				Not protected	Y	N	Dryness of the plan. Poaching, water pollution.
	Wasa	253 (1997)				National Park	Y	Y	
Cyprus	Larnaca					SPA	Y	Y	Sewage work
	Akrotiri		Salt lake				Y	Y	
Jordan	Azraq	(1-5)				Partly protected	Y	Y	Drought & overpumping.
	Aqaba sewage plant	(2-10)				Partly managed as observatory	Y	N	Disturbance.
	River Jordan	(5-50)				Partly protected	N	N	Habitat loss, overpumping.

	Al-Karamah Dam (Jordan Valley)	(1-10)				Not protected	N	N	Disturbance, hunting.
Libya	Farwa Lagoon to Ras Ajdir	60-70 (2005-2007)	Marine (tidal)			Not protected.	N	N	Possible pollution from nearby petrochemical site; encroachment of nearby town.
	Wadi Zaret Dam	1-2	Freshwater				N	N	Water storage reservoir
	Wadis mouths east of Tripoli	2005 : 1	Mainly freshwater, brackish nearer sea.			National Park.	N	N	Uncontrolled human visitors cause disturbance and leave litter.
	Taourgha springs	5-9 (2005-2007)	Spring is fresh water, but large neighbouring salt lake is brackish			Not protected.	N	N	Merits Ramsar designation.
	Al Hisha springs	2-6	Spring is fresh water, but large neighbouring salt lake is brackish.			Nature Reserve of 160,000 ha. with strictly controlled access declared in 1984	N	N	
	Benghazi/Al Thama/Ain Azziana	2-22 (2005-2007)	Brackish; linked to sea but much inflow of waste water.			Not protected	Y	N	Heavy urbanization pressure (situated in mid Benghazi); great potential for public awareness raising; merits Ramsar designation.
Niger	Tabalak	23 (2007)					N	Y	Disturbance: edges of wetland (2000 ha wetland) 90% converted to market gardens; in 1994

									only 10-20%; fishing has also increased; the wetland dries out occasionally now, which it never used to do. Lack of integrated management of wetland, for agriculture, pastoralism, fisheries, collection of natural products and biodiversity.
Tunisia	Kneïss Islands	1013-1513 (2003-2007)				Natural reserve	Y	Y	
	Oued El Maltine	111 (2006) 142 (2007)	Sea water				N	Y	
	Island of Djerba	60-1257 (1998-2007)	Sea water			Hunting reserve	N	Y	City development, expansion of tourist facilities.
	Gulf of Boughrara	268 (2006)	Sea water			Hunting reserve	Y		
	Thyna salt-pans	82-480 (1998-2007)	Sea water			Hunting reserve	Y	Y	Disturbance by visitors.
	Kerkennah Islands	222-392 (2002-2007)	Sea water			Hunting reserve	Y	N	
	Bahiret el Bibane	66 (2006) 94 (2007)	Sea water			Hunting reserve	Y	Y	
	Gourine	600 (2006) 110 (2007)	Sea water			Hunting reserve	Y	N	
	Sebkhet Dreïaa	41-178 (2003-2007)	Sea water			Hunting reserve	Y	N	

Oued Akarit	15 (2003) 3 (2006)	Freshwater			Hunting reserve	N	N	
Monastir salt-pans	55 (2003)	Sea water			Hunting reserve	Y	N	
Sebkhet Halk el Menzel	17-88 (2003-2007)	Brackish			Hunting reserve	Y	N	
Oued Sed	58 (2003)	Freshwater				Y	N	
Lebna reservoir	150 (2001) 11(2006)	Freshwater				Y	Y	Disturbance from hunting of other species.
Korba Lagoons	11 (2005)	Brackish			Hunting reserve	Y	Y	
Oued el Hajjar reservoir	14 (2003) 3 (2006)	Freshwater				Y		Disturbance from hunting of other species.
Sebkhet Kelbia	640 (1976) 800 (1997)	Freshwater			Nature Reserve	Y	Y	
Ichkeul National Park	61-130 (1998-2006)	Freshwater in winter, brackish in Summer			National Park, World Heritage	Y	Y	Conflicts over use of lake water (reduced inflow because of filling of dams on tributaries) appear to have been resolved: the Government has accepted that Ichkeul is a net water consumer; site removed from World Heritage in Danger List, 2006.
Sidi El Barrak reservoir	75 (2002)	Freshwater				N	N	
Lake of Tunis	12 (2002)	Lagoon, sea water			Hunting reserve	Y	N	Major area of the southern lake has been

									changed in connected with city development projects.
	Oued Rmal reservoir	40 (2002) 13 (2006)	Freshwater			Hunting reserve	N	N	
	El Haouareb reservoir	2 (2003) 1 (2007)	Freshwater				Y	N	
	Zarate & Chott El Aouamer	40 (2007)	Sea water				N	N	
	El Makhadha	3 (2007)	Freshwater			Hunting reserve	N	N	
	Oued El Maleh	2 (2006)	Freshwater				N	N	
	Oued Tmoula	13 (2006)	Freshwater				N	N	
	Oued Gabès	3 (2006)	Freshwater				N	N	
Turkey	Tuzla Lake Mediterranean	1000 (2007) staging	Salt Lake				N	N	Water regime intervention.
	Ceyhan Delta, Mediterranean	300 (1999) staging	Salt, Fresh and Sea Water			Nature Reserve	N	Y	Intensive agricultural usage, thermal plants, industrial plants.
	Akyatan Lake Mediterranean	1350 (2005)	Brackish			Wildlife refuge	N	Y	Intensive agricultural usage, pollution.
	Yumurtalık Lagoon Mediterranean	919 (2006)	Brackish				Y	Y	Intensive agricultural usage, unplanning development.
	Göksu Delta Mediterranean	400 (2006)	Freshwater, Seawater, Brackish			SPA	Y	Y	Water regime intervention, intensive agriculture, second houses, pollution, and dam construction.
	Palas Lake Central Ana-	680 (2005)	Freshwater and Salt			Natural site area	Y	N	Water regime intervention.

	tolia		Lake						
	Kızılırmak Delta -Black Sea	1210 (2002) Staging	Freshwater and Sea water				Y	Y	Water regime intervention, pollution, second houses.
	Bosphorus	310 (2006)	Seawater				Y	N	
	Sultan marshes Central Anatolia	930 (2006)	Freshwater and Salt lake			Nature reserve	Y	Y	Water regime intervention, pollution.
	Kulu Lake Central Anatolia	339 (2004) Staging	Brackish			SPA	Y	N	Pollution, human disturbance.
	Manyas Lake, Marmara Region	21 (2007)	Freshwater lake			National Park	Y	Y	Pollution. The lake is changed to a reservoir by construction embankment for agricultural purposes.
	Mogan Lake - Central Anatolia	38 (2004)	Freshwater lake			SPA	Y	N	Pollution, second houses, and recreational activities.
	Gavur Lake, South-East Anatolia	590 (2005) staging	Freshwater Lake				Y	N	Water regime intervention.
	Hatay-Belen Plain, South-East Anatolia	126 (2005) staging	Freshwater				N	N	-
	Tuz Lake, Central Anatolia	42 (2005) staging	Salt lake			SPA	Y	N	Water regime intervention, pollution.
	Meriç Delta, Marmara Region	391 (2003) staging	Freshwater, Brackish water		Day	National Park	Y	Y	Pollution, water regime intervention. Intensive agriculture.

P. l. major

Countries	Site	Numbers	Water quality	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Armenia	Lake Sevan	1-7 (2000-2007)	Freshwater	Day, Night	National Park	Y	Y	Hunting, fishing, disturbance.
	Armash	1-7 (2000-2007)	Freshwater	Day, Night	Not protected	Y	N	Hunting, fishing, other disturbance sources.
	Metsamor River System (Araks Valley)	1-2 (2000-2006)	Fresh and brackish water	Day	Not protected	Y	N	Hunting, fishing, agriculture, drainage of channels.
Azerbaijan	Divichi liman (Lake Akzibir)	300-400 (staging)	Sea water	Day	Not protected	Y	N	Overhunting, water level.
	Lake Sarisu		Freshwater	Day		Y	N	Overhunting, water level.
	Lake Ak-Gel	244 (2006)	Freshwater	Day	National Park	Y	Y	Overhunting, water level.
	Kura river Delta	141 (2000)	Sea water	Day	Not protected	Y	N	Overhunting, water level.
	Lake Makhmudchala	6 (2000)	Freshwater	Day	Not protected	Y	N	Overhunting, water level.
	Varvara w.r.		Freshwater	Day	Not protected	Y	N	Overhunting, water level.
	Kizil Agach reserve	559 (2006)	Sea water, Fresh water	Day	State Nature Reserve	Y	Y	Overhunting, water level.
Iran	Miankaleh Peninsula and Gorgan bay					Y	Y	Tourism, illegal fishery.
	Khouran Straits					Y	Y	Harbour construction, tourism development, (oil) pollution.
	Hilleh river delta					Y	N	

Kazakhstan	Irgys-Turgay Lakes	403 (2005) staging				Y	Y	
Kuwait	Bubiyah Island	100 (2000-2007)			Protected	N	N	
	Jahra Bay	10 (2000-2007)			Not protected	N	N	Some shooting.
Syria	Sabkhat al-Jabbul	390 (2005) staging			Nature reserve	Y	Y	Change in hydrologic management.
Tajikistan	None identified with certainty. Potentially Tigrovaya Balka in Jilikul district and Rybkhoz of Ghozimalik.	no data available			Tigrovaya Balka is a zapovednik. Rybkhoz of Ghozimalik has no formal protection.	On national list of potential IBAs.	N	Illegal hunting.
Turkmenistan	Sudochye lakes system (to the south from Aral Sea).	4 (2000) staging	Salty water	Day	IV category of IUCN PA	N	N	Deficit of water resources and regular drying up of the lakes. Burning out of reed beds. Regular pass of cattle.
	Kagan Fish Farm	25-350 (2006)	Freshwater	Day	Not protected	N	N	Overfishing and bad fishing management.
	Balikchi Fish-Farm	270 (2006)	Freshwater		Not protected	N	N	Human persecution, changes in hydrology.

Georgia	Javakheti Lakes	almost every year a small number detected			Planned National Park	N	N	Human encroachment, mowing.
	Kolkheti Lowland				National Park	Y	Y	Human encroachment, poaching, tree-cutting.
	Ktsia-Tabatskuri				Planned Sanctuary	Y	N	Human encroachment, mowing.
Oman	Masirah	50 (1990) 100 staging			Not protected	Y	N	None.
	Khawr Ghawi	100 (1995) 120 staging			Not protected	Y	N	None.
	Barr al Hikman	600 (2005) 600 staging			Proposed nature reserve	Y	N	None.
	Duqm	200 (2005) 220 staging			Not protected	N	N	None.
	Sur	24 (2005) 24 staging			Not protected	N	N	None.
	Khawr Dirif	10 (2005) 31 staging			Not protected	N	N	None.
	Salalah khawrs	30 (2007) 50 staging			Some areas protected	N	N	None.

P. l. archeri and *P. l. balsaci*

Countries	Site	Numbers	Water quality	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Djibouti	Ile Musha	38 (2005)			Protected	N	N	
	Doralé-Loyada	27 (2004)			Not protected	N	N	
Egypt	Egyptian Coastal Shoreline and Northern Lakes	(10-20 staging)	Sea Water and brackish water in northern lakes.	Day	Protected	N	N	Hunting, habitat change, pollution, settlement establishing and development extension.
	Aswan Reserve	No estimate of winter population (10-20 staging)	Freshwater	Day	Protected	Y	N	Hunting, habitat change, development extension.
	Wadi El Rayan Lakes	200	Brackish water	Day	Protected	Y	N	Habitat change, decreasing water level.
	Qaroun Lake	500	Brackish water	Day	Protected	N	N	Habitat change, Hunting, pollution.
Eritrea	Around Massawa	60 (2005)			Not protected	Y	N	Will be declared as MPA in near future.
	Anfile Bay	200 (2006)			Not protected	N	N	
	Around Bera-sole	>250 (2006)			Not protected	N	N	
	Nahleg	45 (2006)			Not protected	N	N	
	Berite	16 (2007)			Not protected	N	N	
	Hirgigo	12 (2005)	Sea water	Day	Protected	N	N	
	Sheik Seid Island	32 (2005)	Sea water	Day	Protected	N	N	

	Dessie Island	5 (2005)	Sea water	Day		N	N	Tourist site.
	Isratu Island	2 (2005)	Sea water	Day	Not protected	N	N	
	Gurgusum	2 (2005)	Sea water	Day		N	N	Tourist site.
	Sheik Seid Island	2 (2004)			Protected	N	N	
	Mai Aron	2 (2004)	Freshwater	Day		N	N	Farming.
Saudi Arabia	Jiddah South Corniche and Central	300 (2000)			Not protected	Y	N	Both sites are heavily visited by people, and disturbance to birds must occur. The threat of oil spills is ever present.
	Khawr 'Amiq	20 (2000)			Not protected	Y	N	Grazing by camel is causing extensive damage, and small-scale mangrove cutting also threatens the site.
	Jizan Bay	30 (2000)			Not protected	Y	N	The site is much disturbed and faces a multitude of threats: Human disturbance, pollution by oil, sewage effluent and rubbish and extensive land reclamation for further urbanization, the later reducing the area of inter-tidal flats available for feeding water-birds.

	Malaki Dam	?				Y	N	Intensive cultivation continues to increase as the local human population expands.. Development projects came up, insecticide & pesticide spraying.
Somalia	Jannaale	Not recently				N	N	Cutting trees in the past. No recent prospect due to insecurity.
Sudan	Khartoum bird sanctuary (KBS)	69 (2006)			Protected	N	N	No real conservation measures.
	Saggay Island	100 (2007)				N	N	Fishing, grazing.
	Dungunab marine park	8 (2007)			Protected	N	N	Fishing.
	Red Sea shore at Port Sudan	15 (2007)				N	N	Human disturbance.
	Dinder National Park	35 (2007)			Protected	Y	Y	Poaching; grazing; fire.
	Um Gar Island	1 (2007)				N	N	Cultivation, grazing, fishing.
	Sinnar dam	11 (2007)				N	N	Hydroelectric power, heavy traffic.
	Gladema	5 (2007)				N	N	Irrigation canals.
	White Nile at Sunt+ Umm Shugeira Island	1-200 (1999-2003)	Freshwater	Day		N	N	Major development of the river bank with control of inundation, construction of golf course and office and residential accommodation.
Yemen	Aden	170 (1993)	Salty water			N	N	Land claim, disturbance.

Countries	Site	Numbers	Water quality	Prey species*	Feeding period	Legal status	IBA	Ramsar Site	Conservation problems
Mauritania	Banc d'Arguin National Park		Sea water	Shrimps, small fish	Day, night	National Park	Y	Y	Industrial fishing, Mechanical cockle dredging in the future. Oil exploration, Upcoming tourism.
	Baie d l'Etoile		Seawater	Shrimps, fish	Day, night	Not protected	Y	Y	House building along the bay.
	Diawling		Sea & fresh water	Shrimps, fish	Day, night	National Park	Y	Y	Invasive water-plants, Diamadam?
	Aftout/Chatt Boul		Inland lake	Fish	Day, night	National Park	Y	Y	Cattle grazing.

Breeding sites

Ardea cinerea A.c., *Ardea purpurea A. p.*, *Egretta garzetta E. g.*, *Egretta alba E. a.*, *Egretta gularis E. gu.*, *Nycticorax nycticorax N. n.*, *Bubulcus ibis B. i.*, *Ardeola ralloides A. r.*, *Plegadis falcinellus P. f.*, *Ciconia ciconia C. c.*, *Phalacrocorax pygmeus P. p.*, *Phalacrocorax carbo P. c.*, *Larus argentatus L. a.*, *Threskiornis aethiopicus T. a.*, *L. ridibundus L. r.*, *Larus michaelis/cachinnans L.m.*; *Podiceps ruficollis P.r.*, *Anser anser A.a.*; *Larus ridibundus L.r.*; *Larus fuscus L.f.*

P. l. leucorodia (Atlantic)

Co un-trie s	Colony	Year of first breed-ing	Num-ber Breed-ing Pairs (min-max)	Habitat	Wa-ter	Prey species	Feed-ing period	Breed-ing among colony of?	Breed-ing suc-cess (n fledg-ings/ BP)	Legal status of the site	IB A	Ra msar Site	Conservation problem
Belgium	Verrebroekse Blikken at Verrebroek	2003	1-18	Harbour area with sandy areas, shallow waters, remnants of polders and creeks; The colony itself is found on an small island of dead trees and branches.	Brackish	Probably small fish	Day, Evening	<i>L. r.</i> , <i>P. r.</i>	1.6 – 2.5	SPA	Y	N	Breeding site will disappear as a result of industrial development. Full compensation (with alternative breeding site) is planned.
	Zwin area at Knokke	1999	1-2	Brackish coastal 'lagoon', tidal marshes and adjacent polder area's with creeks and ditches; The colony itself is found in old pine trees.	Mainly brackish	Probably small fish	?	<i>A. c.</i> , <i>E. g.</i> , <i>N. n.</i> , <i>P. c.</i>	?	SPA, nature reserve	Y	Y	As a result of external factors (e.g. sand deposits on the beach of Knokke-Heist), a gradually increasing siltation of the creeks, mudflats and saltmarshes occurred. This caused less frequent flooding of the reserve by high tides and a decrease in the ornithological importance (mainly as a feeding area).
Denmark	3 separate colonies Ulvedybets og Nibe Bredning; Ringløbing Fjord; Vadehav and Byghol Velje	1996		Small islands with reed	Salty to brackish	Small fish, etc.		<i>P. c.</i> , <i>Larus sp</i>		Nature Reserve	Y	Y	Northernmost breeding colony. Illegally persecution of cormorants. In some years foxes are present at the beginning of breeding season.
France	Grand-Lieu	1973	1-51	Floating forest	Fresh water	Shrimps, crayfishes, fish		<i>T. a.</i> , <i>A. c.</i> , <i>E. g.</i>	2.45	National reserve	Y	Y	
	Brière	1992	2-119	Salix, rarely reedbeds	Fresh water	Shrimps, crayfish		<i>T. a.</i> , <i>A. c.</i> , <i>E. g.</i>	2.83	Not protected	Y	Y	Water level, human and cattle disturbance.

	Edre	1994	3-26	Salix, Alnus				A.c.,	?	Not protected	Y	N	Water level.
	Orx	1997	0-6	Salix, Pinus				A.c.,		Nature reserve	Y	N	Water level, invasive plants (<i>Ludwigia</i>).
	Baie de Somme North	2000	6-28	Pinus				A.c., E. g, C. c.,	1.8	Nature Reserve	Y	Y	
	Baie de Somme South	2007	3	Beech				A.c; E.g, E.a.		Private site	N	N	
	Camargue (Banaston)	1998	2-36	<i>Salicornia, Halimione, Sueda sp.</i>				L.m., T.a.		Department reserve	Y	Y	Yellow-legged-Gull and Sacred ibis? (risks of predation on nests and of competition for space).
	Camargue (Bessons)	2005	1-7	<i>Salicornia, Halimione, Sueda sp</i>				L.m., T.a.		Department reserve	Y	Y	Yellow-legged-Gull, Horse riding.
	Guérande	2000	6-25	Oak				A.c., E.g,		Regional protection	Y	N	
	Dombes	2006	5-6	Salix				A.c., E.g,	2	Not protected	Y	N	Water level, human disturbance.
	La Grippe - Saint-Symphorien	2006	1-8	<i>(Alnus glutinosus, Fraxinus sp., Salix sp. and Quercus pedunculata)</i>				A.c, E g, B i., N.n.,	0.6	Private site	N	N	Cut of trees and human disturbance (colony at 300 m of the road and 500 m of village).
Germany	Memmert	>1990	117	Saltmarsh	Salt-water	Shrimps	Night, Day	L. a.	1.7	Protected	N	N	Tourism, overfishing.
	Mellum	>1990	40	Saltmarsh	Salt-water	Shrimps	Night, Day	L. a.	1.5	Protected	N	N	Tourism, overfishing.
	Nordene	2000	21	Saltmarsh	Salt-water	Shrimps	Night, Day	L. a.	1.1	Protected	N	N	Tourism, overfishing.
	Trischen	2002	2-14	Saltmarsh, dunes	Salt-water	Shrimps	Night, Day	L.a.,L.f.	1.6 - 1.7	National Park	N	N	Tide flood, overfishing.
	Borkum	1999	6	Saltmarsh	Salt-water	Shrimps	Night, Day	L.a.,	2.0	Protected	N	N	Tourism, overfishing.
	Oland	1999	2-28	Saltmarsh	Salt-water	Shrimps	Night, Day	L.a., A.a.		National Park	Y	N	Tide flood, overfishing.
	Föhr	2007	2	Saltmarsh				L.a., L.f.		National Park		N	
Morocco	Smirt	1994	1-20	Dunes with Tamarix, Genévrier rouge et Lentisque.	Brackish water			E. g, B.i., N.n.,		Domaine maritime	N	N	Apparently no problem, close to a royal property so no disturbance.
	Tahadart	1967	13	Sarcocornia marshes				None	0		N	N	First and last breeding, nests destroyed by cattle, no protection.

Netherlands	Zwanen water	<1650	120	Freshwater, dune slack				<i>P.c.</i>	Ca. 1.3	Protected	Y	Y	High human pressure Access of foxes. Competition with Cormorants. Polluted feeding ground by agriculture (Tulips).
	Oostvaardersplassen	>1972	320	Artificial polder, reedbeds				<i>A.a., E.a.,</i>	Strongly fluctuating	Protected	Y	Y	Waterlevels and access of foxes.
	Texel, de Geul	1980	250	Dune slack with reedbeds and willow trees	Brackish water			<i>P.c.</i>	Ca 1.0	Protected	Y	Y	Competition with Cormorants.
	Texel, de Muy	<1900	30	Dune slack	Brackish water			<i>P.c.</i>	Ca 1.0	Protected	Y	Y	Human pressure.
	Texel, De Schorren	1982	65	Saltmarsh	Salt water	Shrimps		<i>L. a.</i>	fluctuating	Protected	Y	Y	Summer floods.
	Vlieland	1983	220	Dune and polder	Salt water	Shrimps		<i>L. a.</i>	Ca 1.1	Protected	Y	Y	
	Ameland	1994	40	Saltmarsh	Salt water	Shrimps		<i>L. a.</i>	Ca 1.2	Protected	Y	Y	Summer floods.
	Schiermonnikoog	>1992	240	Saltmarsh				<i>L. a.</i>	Ca. 1.2	Protected	Y	N	Flooding by seawater.
	Rottum Oog & plaat	Ca 1998	50	Saltmarsh	Salt water	Shrimps		<i>L.a.</i>	Ca 1.3	Protected	Y	Y	Summer floods.
	Ter-schelling	>1960	220	Saltmarsh				<i>L. a.</i>	Ca. 0.8	Protected	Y	N	Flooding by seawater.
	Haarlem Buitenlie de	2004	9	Woodland (<i>Alnus</i>)	Fresh water	Small fish		<i>A. c.</i>	Ca 1.8	Not protected	N	N	Human disturbance.
	Balgzand	2000	80	Saltmarsh	Salt water	Shrimps		<i>L. a.</i>	Ca 1.2	Protected	N	N	Human disturbance, areoplanes.
	Onderdijk	2001	55	Artificial island in freshwater lake	Fresh water			<i>Sterna hirundo, L.r.</i>	Ca 1.1	Protected	N	N	Some years, botulism.
	Biesbosch Sassenplaat	1999	84	Former sea arm	Brackish water	Small fish		<i>A.c.</i>	Ca 1.2	Protected	N	N	Human disturbance.
	De Wieden	2003	25	Woodland (<i>Alnus</i>)	Fresh water	Small fish		<i>A.c., E.a.</i>	Ca 1.2	Protected	N	N	High human pressure.
	Botshol	1998	26	Marshland	Fresh water	Small fish		<i>T.a.</i>	Ca 1.3	Protected	N	N	High human pressure, Foxes.
	Markieziaat	2000	38	Reedbeds	Brackish water	Small fish		<i>L.a., L.f.</i>	Ca 1.2	Protected	N	N	Foxes.
Mid-delplaten	1997	18	Island in former sea arm	Brackish water	Small fish		<i>L.a.</i>	Ca 1.2	Protected	N	N	Foxes.	
Quackjeswater	1989	200	Duneslack	Salt water	Shrimps		<i>E.g.</i>	Ca 1.1	Protected	N	N	High human pressure.	

	Vlissingen	2002	25	Industry area				<i>L. a.</i>	Ca 1.6	Not protected	N	N	Human disturbance.
Portugal	Ria Formosa Algarve	1989	13 (2005)	Saltmarshes	Salt water					Protected	Y	Y	
	Monte do Álamo	1998	20-25 (2007)	<i>Pinus pinea</i>	Fresh water			<i>A.c., E.g., C.c., B.i.</i>		Private land, not protected	N	N	Tree mortality, Habitat transformations.
	Escarpupim	2003	20-25 (2007)	<i>Salix, Populus</i>	Fresh water			<i>E.g., A.c., B.i., N.n.</i>		Not protected	N	N	Human disturbance (nautical sport).
	Paul do Boquilobo	1988	50-60 (2005)	<i>Salix, Populus</i>	Fresh water					Nature Reserve	Y	Y	Contamination by agriculture.
Spain	Odiel Marshes	1960	271 (191-364)	<i>Spartina densiflora, Suaeda vera, Halimione portulacoides, Arthrocnemum macrostachyum</i>		<i>Fundulus sp</i> (71%), <i>Palaeomonetes varians</i> (19%)		<i>A.c., E. g, B.i., A.p.</i>	0,94 (0,5-1,4)	Paraje Natural	Y	Y	Drought, pesticides, parasites. Nest flooding during spring tides. Contamination by heavy metals and pesticides. Human infrastructures. Decreasing food quality and availability.
	Pajarera de Doñana	1959	910 (0-2091)	Old trees <i>Quercus suber, Populus alba, Salix atrocinerea</i>	Fresh water	<i>Procambarus clarkia</i> , fishes, Shrimps		<i>E. g, A.c., C. c.,N. n., B. i., A.r.</i>		National Park	Y	Y	Oak mortality (loss of breeding site), drought. Toxins (botulism and cyanobacterias). Invasive plant species (<i>Azolla fuliculoides</i>).
	Huerto de los Zorros	2002	32 (1-94)	<i>Eucaliptus</i>	Fresh water, Brackish water	<i>Procambarus clarkia</i> , fishes, Shrimps		<i>E. g, A.c., C. c.,N. n., B..i., A. r.,</i>		National Park	Y	Y	Drought. Toxins (botulism and cyanobacterias). Invasive plant species (<i>Azolla fuliculoides</i>). Tree mortality (loss of breeding site).
	Casa Neves	2000	102 (12-177)	<i>Eucaliptus, Fraxinus</i>	Fresh water	<i>Procambarus clarkia</i> fishes Shrimps		<i>E. g, A.c., C. c.,N. n.,B.i.</i>	1,5 (1,2-1,8)	Natural Park	Y	Y	Tree mortality (loss of breeding site).
	Isla Cristina marshes	1997	98 (0-163)	<i>Spartina densiflora, Suaeda vera, Halimione portulacoides, Arthrocnemum macrostachyum</i>	Salty water	<i>Palaeomonetes sp.</i>		<i>E. g, B.i.</i>	1,10 (0,4-1,6)	Paraje Natural	Y	Y	Disturbance. Predation (feral dogs). Land destruction for urbanistic projects. Drought.
	Cadiz Bay	1996	77 (62-116)	<i>Arthrocnemum</i> and <i>Sarcocornia</i>	Salty water			<i>L.m.</i>	1,16 (0,2-1,65)	Natural Park	Y	Y	Human disturbance. Salina abandonment. Drought.
	Bornos	1994	11 (7-12)	<i>Tamarix tamarix</i>	Fresh water			<i>A.c., E.g, B.i., A.r, N.n.</i>		Protected (Paraje Natural)	Y	N	Water level management.
	Cabrahigos	1999	18 (10-30)	<i>Olea europaea</i>	Fresh water			<i>A.c., E.g, B.i.,N.n.</i>		Private land, not protected	N	N	Tree mortality (loss of breeding site).

Veta de Adalí	2001	34 en 2004	<i>Eucaliptus</i>	Fresh water			<i>A.c., E.g., C.c..</i>		Private land, not protected	N	N	Abandoned since 2004 because presence of Imperial Eagle. Human disturbance (agriculture, cattle).
Olivillos	2003	4 en 2004	<i>Salix, Populus</i>	Fresh water			<i>A.c., E.g.,</i>		Private land, not protected	N	N	Abandoned since 2004 because human disturbance (agriculture, cattle).
Extremadura (1-6 sites)	1999	4 (1-15)	<i>Oak, woodland</i>	Fresh water					Not protected	N	N	Disturbance. Land destruction for urbanistic projects.
Other (2 sites)	2005	3-6	<i>Trees</i>	Fresh water					Not protected	N	N	Disturbance. Land destruction for urbanistic projects.

P. l. leucorodia (Continental)

Co un tri es	Colony	Year of first breed ing	Num- ber Breed ing Pairs	Habitat	Water	Feed- ing	Breeding among colony of?	Breed ing suc- cess	Legal status of the site	I B A	Ram- sar Site	Conservation Problem
Albania	Kune	1960		Riverine forest surrounded by marshes	Brack- ish		<i>P. p.</i> , <i>P. c.</i> , <i>A. c.</i> , <i>E. a.</i> , <i>E. g.</i> , <i>P. f.</i> , <i>N. n.</i> ,		Nature Man- aged Reserve	Y	N	Illegal logging, hunting, disturbance, nesting habitat alteration.
	Velipoja	Pre 1970		Riverine forest surrounded by marshes	Brack- ish		<i>P. p.</i> , <i>P. c.</i> , <i>A. c.</i> , <i>E. a.</i> , <i>E. g.</i> , <i>P. f.</i> , <i>N. n.</i>		Land- scape Pro- tected Area	Y	N	Illegal logging, hunting, disturbance, nesting habitat alteration.
Austria	Lake Neusiedl	Pre 1900	38-81	Reedbeds	Fresh- water		<i>A. c.</i> , <i>E. a.</i>		National Park	Y	Y	Water level.
Bosnia & Herzegovina	Bardača	1973	??	biotope of reed, bulrush and rush						Y	Y	This site is private fish farm and this is problem for conservation (conflict of interests).
	Livan- jsko polje	1888- 1904	9-30		Fresh- water	Day				N	N	Illegal hunting & degradation of biotopes.
Bulgaria	Poda	1964	10-50	Bogs and marshes; Shallow saline pools	Fresh- water		<i>P. c.</i> , <i>P. p.</i> , <i>N. n.</i> , <i>A. r.</i> , <i>E. g.</i> , <i>E. a.</i> , <i>A. c.</i> , <i>A. p.</i> , <i>P. f.</i>		Pro- tected area	N	Y	Agricultural intensification – expansion, aquaculture and fisheries, recreation and tourism, unsustainable exploitation, infrastructure, extraction industry, industrialization and urbanization, natural events.
	Lake Srebarna	1890	5-70	Bogs and marshes and Temperate riverine			<i>P. c.</i> , <i>P. p.</i> , <i>N. n.</i> , <i>A. r.</i> , <i>E. g.</i> , <i>E. a.</i> , <i>A. p.</i> , <i>P. f.</i>		Nature Reserve Bio- sphere Reserve UNESC O Site	Y	Y	Agricultural intensification – expansion, aquaculture and fisheries, recreation and tourism, infrastructure, extraction industry, construction of dykes, natural events, flooding, pigs, disturbance.
	Belene island	1968	0-22	Bogs and marshes and Temperate riverine			<i>P. p.</i> , <i>N. n.</i> , <i>A. r.</i> , <i>E. g.</i> , <i>E. a.</i> , <i>A. p.</i> , <i>P. f.</i>		Natural Park with Strict Nature Reserve & Natu- ral Monu- ment	Y	Y	Selective logging, intensified forest management, afforestation, commercial deforestation, aquaculture and fisheries, drainage, burning of vegetation, disturbance to birds.
	Vardim island	1975	9-20	Temperate riverine			<i>P. c.</i> , <i>P. p.</i> , <i>N. n.</i> , <i>E. g.</i> , <i>E. a.</i>		Pro- tected	Y	N	Selective logging, intensified forest management, commercial deforestation, unsustainable exploitation, drainage.

	Ibisha island	1997	10	Temperate riverine			<i>P. p.</i> , <i>N. n.</i> , <i>E. g.</i> , <i>A. p.</i>		Man- aged Nature Reserve	Y	Y	Selective logging, agricultural intensification – expansion, intensified forest management, afforestation, commercial deforestation, unsustainable exploitation.
Croatia	Krapje Đol	1949-2007	3-180	Rarely in <i>Typha sp.</i> , reedbeds (2 years only 1988, 2007), normally on willows in the water	Fresh-water		<i>A. r.</i> , <i>E. g.</i> , <i>N.n.</i> , <i>A. p.</i> , <i>P.p.</i> , <i>A.c.</i> , <i>E.a.</i>		Special ornithological reserve	N	Y	Artificial water level maintenance in the oxbow; execution of mitigation schemes, abandonment of fish production on fish-ponds. Succession and alien species.
	Jelas Fish-ponds	1990	2-200	carp fish-ponds/ reedbeds (<i>Typha</i> and <i>Phragmites</i>)	Fresh-water		<i>A. r.</i> , <i>E. g.</i> , <i>N.n.</i> , <i>A. p.</i> , <i>E. a.</i> , <i>P. p.</i> , <i>P. f.</i>			N	N	Water level maintenance, dying of typha stands.
	Našice fish-ponds	1993	0-60	carp fish-ponds/ reedbeds (<i>Typha</i> and <i>Phragmites</i>)	Fresh-water		<i>A. r.</i> , <i>E. g.</i> , <i>N.n.</i> , <i>A. c.</i>		Not protected, hunting ground	N	N	Water level maintenance, disturbance by fisherman /cormorant depredation activities/ and photographers, abandonment of fish production on fish-ponds.
	Donji Miholjac fish-ponds	1995	2-11	carp fish-ponds/ reedbeds (<i>Typha</i> and <i>Phragmites</i>)			<i>A. r.</i> , <i>E. g.</i> , <i>N.n.</i> , <i>A. c.</i>		Not protected, hunting ground	Y	N	Water level maintenance, disturbance by fisherman /cormorant depredation activities.
	Grudnjak fish-ponds	2003	9-30	Carp fish-ponds/willows			<i>A. r.</i> , <i>E. g.</i> , <i>N.n.</i> , <i>A. c.</i>		Not protected, hunting ground	Y	N	Water level maintenance, disturbance by fisherman /cormorant depredation activities/ abandonment of fish production on fish-ponds.
	Kopački rit Nature park*	1953	3-11	<i>Typha sp.</i> , reedbeds			<i>A. r.</i> , <i>E. g.</i> , <i>N.n.</i> , <i>A. c.</i> , <i>E. a.</i>		Protected as Nature park	N	Y	Abandonment of fish production on fishponds drainage of former flood plain, lack of pasturing.
Czech Republic	Zliv	1984	1 - 11	Fishpond islets	Fresh-water	Day	<i>N. n.</i> ,	1,0 – 3,75	proposed SPA	N	N	Slow abrasion of breeding islets.
Greece	Kerkini Lake		125	Lake	Fresh-water		<i>E.g.</i> , <i>N.n.</i> , <i>A r.</i> , <i>A c.</i> , <i>A p.</i> , <i>P c.</i> , <i>P p.</i> , <i>P f.</i>		SPA	Y	N	Increase of water level of the artificial lake which may destroy nests during the breeding season.
	Axios Delta		26	River Delta			<i>E.g.</i> , <i>N n.</i> , <i>A r.</i> , <i>P c.</i> , <i>P. p.</i> , <i>P f.</i>		SPA	Y	Y	

Hungary	Gallikos River	2006	2	River			<i>E. g., N.n., A. r., P. p., P. f.</i>			Y	Y	Pollution.
	Amvrakikos		70	Marsh	Fresh-water		<i>E. g., N. n., A. r., P. f.</i>		SPA	Y	Y	Disturbance?
	Kolon-tó	Traditional breeding site	30-120	Reedbed	Fresh water		<i>A.c., A. p., A. r., N. n., E. a., E. g.</i>		National Park,(SPA, pSCI)	Y	Y	Wild boars in dry year.
	Péteri-tó	?	0-250	Fishpond with reedbed	Fresh-water		<i>A. p., A. r., N. n., E. a., E. g., P. f.,</i>		Nature conservation site	N	N	Sometimes there is no water in the ponds because of climatic problems.
	Csaj-tó	?	150-250	Fishpond	Fresh-water		<i>A. p., A. r., N. n., E. a., E. g., P. f., P. p.,</i>		Nature conservation site, (SPA, pSCI)	N	N	Sometimes, dryness.
	Szeged, Fehér-tó	?	50-150	Fishpond	Fresh-water		<i>N. n., E. a., E. g,</i>		Nature conservation site, (SPA, pSCI)	N	N	
	Tiszaalpár	?	0-140	Flooded area of river Tisza	Fresh-water		<i>A.c., A. p., A. r., N. n., E. a., E. g., P. f., P. p.,</i>		National Park, (SPA, pSCI)	Y	N	Sometimes the water destroys the nests. Some years ago it was dry, and there was no Spoonbill in those years.
	Nyirkai-hany, Bósárkány	2005	0-15	Habitat reconstruction	Fresh-water		Alone		Protected	Y	Y	Dryness on feeding area, collapse of reedbed in breeding site.
	Derzsi-10	2002	Min: 225, max: 520	Fishpond	Fresh-water		<i>E. a., E. g., A. p., A.c., A. r., N. n., P. p., P. f.,</i>		National park	N	N	Fishing activities.
	Halastó-7	1985	Min: 112, max: 300	Fishpond	Fresh-water		<i>E. a., E. g., A. p., A.c., A. r., N. n., P. p., P. f.,</i>		National park	N	N	
Kunkárolnás	1980	Min: 20, max: 180	Marshland	Fresh-water		<i>E. a., E. g., A. p., A.c., A. r., N. n., P. p.,</i>		National park	N	N		
Német-sziget	2000	Min= max: 40	Marshland	Fresh-water		<i>E. a., E. g., A. p., A.c., A. r., N. n., P. p.,</i>		National park	N	N		
Meggyes-lapos	2002	Min= max: 10	Marshland	Fresh-water				National park	N	N		

Italy	Comacchio lagoons	1989, 1991-2007	2-95	Lagoon	Brackish		<i>L. cachinnas</i>	1.7 ±0.6 during 1989-2002	Protected (regional park, SPA)	N	N	Eggs/nestlings predation by gulls and rats; human disturbance (photographers), heavy rains and cold spells during the nestling stage.
	Ravenna coastal marshlands	1990, 1998, 2004-2007	1-85	Marsh	Freshwater		A.c., A. p., N.n., E.g., E. a., B. i., A. r., <i>Plegadis falcinellus</i> , <i>P. f. P. p.</i>) for 1500-2500 bp		Protected (regional park, SPA)	N	N	Loss of bushes and other aquatic plants due to heavy decrease of water quality (salt input and high nutrient levels) also affecting local grazer food web and prey availability, heavy rains and cold spells during the nestling stage.
	Bologna ponds (Malalbergo)	1999-2003	1-7	Marsh	Freshwater		A. c., N. n., E. g.		Protected (reserve, SPA)	N	N	
	Sartirana lake	2003, 2007	2-3	Lake	Freshwater		A. c., A. p., N., n., E. g., B.I., A. r.		Protected	N	N	
	Cavanata lagoon	1997	2	Lagoon	Brackish		?	3 young (0 + 3 each nest)	Protected (regional park, SPA)	N	N	Human disturbance; heavy rains and cold spells during the nestling stage.
	Isonzo river mouth (Isola della Cona)	1998	Attempt (nest abandoned)	Marsh	Freshwater		?		Protected (regional park, SPA)	Y	N	Heavy rains and cold spells during the nestling stage.
	Lagoon of Venice	1998	1-5	Lagoon	Brackish		A. c., A. p., N. n., E. g., B. i., A. r.		SPA	Y	Y	Heavy rains and cold spells during the nestling stage.
	Sesia river	1990-1991	2-4	River			A. c., A. p., <i>Nycticorax n.</i> , E. g., B. i., A. r.		Protected (regional park, SPA)	N	N	
	Bando ponds	1991-1993	1-3	Marsh	Freshwater		A. c., A. p., N. n., E. g..		Protected (natural reserve, SPA)	N	N	
Moldova	Beleu Scientific Reserve ("Lower Prut")		5-20 pairs (2002)	Reedbeds, Floodland, Forest	freshwater	Day	A. c., N. n., E. g., A.r.		Reserve	Y	Y	Lack of nesting places, Water regime, illegal hunting and degradation of biotopes.

Montenegro	Paratuk	1997-2007	Max 33	Alluvial forest – island in the Bojana River			<i>P. p., P. c., N. n., A. c., E. g., E. a., A. r., P. f.</i>		Non protec.	N	N	Tourism disturbance and boat traffic (increasing), lack of border control, proposed regulation of river.
	Ada Bojana	Until 2004	Max 18	Flooded wood			<i>P. p., P. c., N. n., A. c., E. g.</i>		Non protec.	N	N	Tourism disturbance and boat traffic, lack of border control, huge tourism project proposed.
	Sasko lake/ex colony	197...	Max 32							N	N	
	Skadar Lake, Ulcinj	2004	20		Salty water	Day			N	N	N	Hunting disturbance.
Romania	Bistret		120-166	Fishpond, extensive use			<i>E. g., E. a.,</i>		SPA, ornithological reserve	N	N	Fisheries management, water level fluctuations, disturbance.
	Brațul Borcea		144-160	Wetland complex	Fresh-water		<i>E. g., N. n., P. f., A. r., A. c., P. p.,</i>			N	N	Illegal hunting. More than one colony in the site.
	Dunare Ostroave		144-160	Wetland complex	Fresh-water		<i>E. g., N. n., P. p., P. f., A. c.,</i>		SPA	N	N	Forestry interventions, disturbance. More than one colony in the site.
	Suhaia		160-200	Fishpond, extensive use			<i>E. g., N. n.,</i>		SPA	N	N	Fisheries management, water level fluctuations, disturbance, illegal hunting.
	Gârla Mare-Gruia-Izvoarele		254-280	Wetland complex	Fresh-water		<i>E. g., N. n., P. p., P. f., A. c.,</i>		SPA	Y	N	Human disturbance. More than one colony in the site.
	Eleșteiele Jijiei și Mitinului		26 - 40	Fishpond, extensive use			<i>E. g., N. n.,</i>		SPA	N	N	Fisheries management, water level fluctuations, disturbance.
	Delta Dunării (Danube Delta)		360-440	Wetland complex	Fresh-water		<i>E. a., E. g., N. n., P. p., P. c., P. f., A. c., B. i.,</i>		MAB Reserve National Park, Scientific reserve	Y	Y	water level fluctuations, human disturbance, predation, disease. More than one colony in the site.
	Balta Vederoasa		40-50	Wetland complex	Fresh-water		<i>E. g., N. n., P. p., P. p., P. f., A. c.</i>		SPA	N	N	Illegal hunting, disturbance.
	Balta Alba Amara Jirlau		40-52		Mixed fresh-water and alkali lakes		<i>E. g., E. a., A. c.</i>		SPA, scientific reserve,	Y	N	Infrastructure development, water level fluctuations, disturbance.

Lunca Siretului Inferior		5-6	Wetland complex	Fresh-water		<i>E. g. N. n., A. p.,</i>			N	N	Infrastructure development, water level fluctuations.
Iazurile de pe valea Ibanesei Baseului Podrigai		5-20	Fishpond, extensive use			<i>E. g. A. c.</i>			N	N	Fisheries management, water level fluctuations.
Blahnița		54-68	Wetland complex	Fresh-water		<i>E. g. N. n., P. p., A. p., E. a.,</i>		SPA	N	N	Human disturbance.
Lunca Prutului Vlădești Frumușița		12-45	Wetland complex	Fresh-water		<i>E. g. N. n., A. p.,</i>		Natural Park, SPA	N	N	Fisheries management, water level fluctuations.
Insula Mica a Brailei		80-120	Wetland complex	Fresh-water		<i>E. g. N. n., P. p., P. f., A. c.</i>		National Park, SPA	Y	N	
Bečeji fish farm	1991	70-100 in 2007	Reedbed	Fresh-water		<i>A. c., N. n., A. r., E. g., E. a., A. p., P. p.,</i>		Not protected	N	N	Disturbance, poaching during post-breeding season, Increase of water level, Privatization of fishpond.
Jazovo fish farm	Late 1980s	50-70 in 2007	Dense Reed-mace	Fresh-water, Brackish		<i>E. a., A. p., A. c.,</i>		Not protected	N	N	Disturbance, poaching during post-breeding season.
Kapetanški Rit Fish Farm	2004	0 in 2007	Reedbed			<i>E. a., A. p.,</i>		Not protected	Y	N	Disturbance, poaching during post-breeding season, burning of dry reed prior to the breeding season.

Co un tri es	Colony	Year of first breed ing	Num- ber Breed ing Pairs	Habitat	Breed- ing among colony of?	Breed- ing success (n fledg- ings/B P)	Legal status of the site	IB A	Ra msa r Site	Conservation problem
Serbia	Baranda Fish Farm	2005	Ca 50 in 2007	Reedbed	<i>N. n.</i> , <i>A. r.</i> , <i>E. g.</i> , <i>E. a.</i> , <i>A. p.</i> , <i>A. c.</i> , <i>A. c.</i> , <i>P. p.</i> , <i>P. f.</i> ,		Not protected	N	N	Possible transformation of the breeding site into the tourist site.
	Perleska Bara	The first written data from 1950	Ca 20 in 2007	Reedbed	<i>N. n.</i> , <i>A. r.</i> , <i>E. g.</i> , <i>E. a.</i> , <i>A. p.</i> , <i>A. c.</i> ,		Special Nature Reserve	N	N	No obvious threats.
	productive fishpond "CH6", Iňačevce fishpond system	2002	1-35, in 2005 12-20 pairs	<i>Typha</i> in 60-80 cm water level.	<i>A. c.</i> , <i>A. p.</i> , some nests of Marsh Harrier found nearby, too		Not protected	N	N	Intensive fish production connected with reduction of <i>Typha</i> and <i>Phragmites</i> grow and disturbance. From 2003 it is a part of SPA, but still is not declared by government.
	productive fishpond "CH7", Iňačevce fishpond system	from 2006	2-3 pairs	<i>Typha</i> and <i>Phragmites</i> in 60-80 cm water level	<i>A. c</i>		Not protected	N	N	Intensive fish production connected with reduction of <i>Typha</i> and <i>Phragmites</i> grow and disturbance. From 2003 it is a part of SPA, but still is not declared by government.
	productive fishpond "CH5"	1997-2001	0-35	<i>Typha latifolia</i>	<i>A. c.</i> , <i>A. p.</i> ,	3- 4 eggs, 1-4 pulli.	Not protected	N	N	Intensive fish production connected with reduction of <i>Typha</i> and <i>Phragmites</i> grow and disturbance. Commercial fish-pond, in year 2002 was the cause of the <i>Phragmites</i> growth completely destroyed by fishpond-managers.

Colony	Year of first breeding	Number Breeding Pairs	Habitat	Water	Feeding	Breeding among colony of?	Breeding success (n fledgings/BP)	Legal status of the site	IBA	Ramsar Site	Conservation problem
Haçlı Lake, Eastern Anatolia	2000	12 (2000)						Not protected	Y	N	Over grazing.
Bolluk Lake, Central Anatolia	1995 (30 BP)	21-54 (1996-2006)	The species breeds on two small islets.	Highly saline lakes	Day	E. g., Med. Gull, Slender Billed Gull and Gull-billed Tern colonies.		SPA	Y	N	The species bred at the lake; however it fed on surrounding freshwater & brackish lakes. Some of the lakes are not protected. In addition, drought period is effected on freshwater resources last years.
Manyas (Kus) Lake Marmara Region	First record comes from 1930's.	29-200 (1990-2007)	Trees, scarcely on reedbeds.	Fresh-water lake	Day, Night (?)	A. c., cormorant, E. g., N. n., A. r., P. f.			Y	Y	Pollution. The lake has changed to a reservoir by construction embankment for agricultural purposes. The population figure is not clarified. 500 pairs in 1950's (E. Schüz), 835 pairs in 1966 (R.Porter).
Meriç Lake, Delta-Marmara Region	1995 ? (40 BP)	40-75 (2002-2003)	Reedbeds.	Fresh-water lake	Day	E. g., P. f., A. p., A. c., N. n.,		National Park	Y	N	Pollution, water regime intervention, intensive agriculture.
Kulu Lake, Central Anatolia	1998	2-5 (1998-99)	Breeds on small island.	Brackish	Day	E. g.		SPA	Y	N	Pollution, human disturbance.

Turkey	Tuz Lake Central Anatolia	1998	3 pairs (1998)	Breeds on the island.	Saline		Day	White Pelican		SPA	N	N	Water regime intervention, pollution, agricultural usage. All eggs & chicks destroyed by <i>Larus armenicus</i> .
	Kızılırmak Delta, Black Sea	1992	76 (1992)	Reedbeds.	Fresh water			A. c., A. p.	Mean Clutch size 3.66		Y	Y	Water regime intervention, pollution, second houses.
	Akşehir & Eber Lake, Central Anatolia	?	15 (?)	Reedbeds.	Fresh-water					Natural Protected Area	Y	N	Water regime intervention, pollution.
	Ereğli Plain, Central Anatolia	1969 (70 pairs)	10-20 (1998)	Saltmarshes						Natural Protected Area	Y	N	Water regime intervention, pollution, agricultural usage.
	Seyfe Lake, Central Anatolia	?	50 (1996)	Reedbeds.	Salty					Natural Protected Area	Y	Y	Water regime intervention, intensive agriculture.
	Sultan-Marshes, Central Anatolia	1994	10 (1994)	Reedbeds.	Fresh-water					Wild-life protected Area	Y	Y	Water regime intervention.
	Kocaçay Delta, Marmara Region.	2005	5 ?	Rreedbeds.	Salty					Wild-life Protected Area	Y	N	Pollution.
	Uluabat Lake, Marmara Region.	1998	48 (1998)	Reedbeds and Salix trees.	Fresh-water						Y	Y	Water regime intervention, intensive agriculture, pollution, dam construction.
	Bafa Lake, Aegean R.	?	5-10 ?		Fresh-water					Nature Park	Y	N	Recreational activities.
Ukraine	Dniester delta		2-70 (1983-2004)								Y	Y	
	Eastern Sivash		1-128 (1983-2004)								N	N	
	Le-byazhi Islands		2-116 (1992-2003)								N	N	
	Danube delta		160 (1986)								Y	Y	

Co un tri es	Colony	Year of first breed ing	Num ber Breed ing Pairs	Habitat	Wa ter	Feed ing	Breeding among colony of	Legal status of the site	I B A	Ram sar Site	Conservation Problem
Armenia	Armash Fish Farm (Arax River Valley)	2003	1-3	Fish farming ponds in semidesert habitat at c 800 m asl; ponds fringed with reeds, reedbeds in the middle of some ponds support mixed breeding colonies.	Fresh water	Day	<i>P. p., N. n., B. i., E. g., A. r., A. p., P. f. s</i>	Privately managed fish farm.	Y	N	Lack of conservation activities; hunting; disturbance of the breeding colony by researchers/photographers. Water pollution.
	Arax River Valley (in general)	Reported breeding in early 20 th century	Common to very common	Natural marshlands	Fresh water		<i>P. p., N. n., B. i., E. g., A. r., A. p., P. f.</i>		N	N	Lack of conservation activities; hunting; poaching; disturbance, habitat change and fragmentation, extensive agriculture, water pollution.
	Lake Gilli (in Lake Sevan basin)	Throughout 1920s – late 1940s		Highland lake (1900m asl) overgrown with reeds, peat bogs	Fresh water		<i>P. c., N. n., E. g., A. r., A. p., P. f.</i>	National Park,	Y	Y	No suitable breeding sites exist at present. Poor management of the Sevan National Park. High level of disturbance year around. Uncontrolled tourism and Recreation. Lake Gilli drained. The area is under agricultural use.
Azerbaijan	Kizil Agach State Reserve	1950	800 pairs(1950-1995)	Extensive stands of reeds and flooded tamaris as well	Sea-water, fresh	Day, night	<i>P. p., N.n., A.r., E.g., B.i., E.a., A.c., A.p., P.f.</i>	State Nature Reserve	Y	Y	Agriculture change, disturbance, hunting.
	Lake Agzibir	1990		Extensive reedbeds, Tamaris	Sea water	Day, night	Herons, egrets and P.f.				Agriculture change, disturbance, hunting.
	Ak-Gel Lake	1960	600-2200 pairs (1960-90)	Reedbeds, Tamaris	Fresh	Day, night	<i>P.p., N.n., A.r., B.i., E.g., A.p., P.f.</i>	National Park	Y	Y	Agriculture change, disturbance, hunting.
	Makchudchala		200-360 pairs (1988-91)	Shallow lake, 50% is covered with reed and flooded tamaris too	Fresh	Day, night	<i>Ph.pygmeus, N.n., Ixb.m., A.r., E.g., B.i., P.f.</i>		Y	N	Agriculture change, disturbance, hunting.
	Kura delta	1980 years	5-10 pairs (1988-90)	Reeds and tamaris	Sea-water	Day, night	<i>Ph.pygmeus, B.st., Ixb.m., A.r., E.a., E.g., A.p.</i>		Y	N	Drought (Building Dams).
Iran	Tashk lake		200	rocky island, reedbeds	Salty		Slender billed gull, A. g.	National park	Y	Y	Drought (Building Dams).

	Parishan lake		50-400 (1977)	Reed bed,	fresh water lake		Cormorans, <i>A. c.</i> , <i>E. g.</i>	Protected Area; Biosphere reserve	Y	Y	Tourism, illegal fishery and fish introduction, poaching.
	Lake Uromi-yeh		50 (1977)		Fresh and brackish			National Park, Biosphere reserve	Y	Y	Urban pollution, agriculture pollution, drought, salinisation, loss of food resources.
	Hamoun -I Sa-bari, Hamoun -I Hir-mand		120 (1977)	Reedbeds				Protected area	Y	Y	Human exploitation, fish introduction.
	Arjan & Hirm				Fresh water			Protected partially	N	N	Illegall shooting, agriculture, overpopulation, climate change.
	Miankal eh Peninsula , Gorgan Bay				Brackish			National Park, Biosphere reserve	Y	Y	Road?
	Khouran Straits				Salt water			Nature reserve, Biosphere Reserve	Y	Y	Urban pollution, agriculture pollution, drought, salinisation, loss of food resources.
	Hilleh river delta				Fresh water			Protected area	N	N	
Iraq	3 colonies In Haur Al-Hawizeh Marshes	2007	15	Reedbeds	*	Day	<i>P. p.</i> , Sacred Ibis, African Darter, <i>N. n.</i> <i>E. g.</i> , <i>P. f.</i> , <i>A. r.</i>		Y	N	There is no protection law for the observations sites, no legal applications on conservation, observation activities could be mention. Unsecure areas with huge risk for birding and Scientific researches.
	1 colony in Haur Al-Hawizeh Marshes	2005	22	Marshland	*	Day	<i>P. p.</i> , <i>T. a.</i> <i>E. g.</i> , African Darter		Y	N	*Caraceous caraceous, Liza abo, Bellamya bengalinesis, Melanopsis modosa, Physa acuta, Sectarma boulangari, Amphibians
Kazakhstan	Shoshkol Lake		204 (2001)	Reedbeds	B			Y	N	N	Fire, disturbance.
	Korgalzhyn		41					Y	Y	Y	
Russia	Volga Delta		250-350	Wetland complex				Nature Reserve	Y	Y	Hydro-electrical installations, pesticides, waste water release.
	Manych-Gudilo	1980 th	65-120 (2004-2007)	Islands	Salty		<i>A. c.</i>	State Nature Reserve	Y	Y	Flooding and wave erosion of islands.
Syria	Sabkhat al-Jabbul	2005	50-100	Freshwater lake			<i>E.a.</i> , <i>E.g.</i>	Nature Reserve	Y	Y	Change in hydrologic management

Uzbekistan	Tudakul lake	29-120	1	Island with reed-bed	Brackish		<i>P. p., P.f., E.g.</i>			N	
	Tudakul lake	100 (2003)	1		Brackish					N	
	Sudochye Lakes system	120-140			Salty					N	
	Kungrad lakes (Karajar)	100-120 (1990s)			Salty		<i>P. p., N.n., P.f., E.g., A.c., Cormorant, A.r.</i>			N	
	Toguzture	200-240 (1990s)			Salty					N	
	Tuzkan lake (Aydar Arnasay lakes system)	9-43 (1990s)	1		Salty					N	
	Alan floods (Kashkadarya region)	4 (1991)	4		Salty		Cormorant, <i>P.p., A. c., E.g., N.n.</i>			N	
	Cape Akkala (Aral Sea,	300 (1969)			Sea water		Heron, cormorants and gulls			N	
	Lake Shomkekul	32 (1960s)			Salty					N	
	Lake Balanaydyn	10 (1970s)			Salty		Heron, cormorants, <i>A.r.</i> and gulls			N	
	Lake Korahojabah	12 (1970s)			Salty		Heron, cormorants, <i>A.r.</i> and gulls			N	

P. l. archeri and *P. l. balsaci*

Countries	Colony	Year of first breeding	Number Breeding Pairs	Habitat	Breeding among colony of?	Legal status of the site	IBA	Ramsar Site	Conservation Problem
Djibouti	Ile Musha		1-20	Ile	4 species	Protected	N	N	Disturbance, habitat destruction.
Eritrea	Darmachia	?	30-40	In mangrove (<i>Avicennia marina</i>)	<i>E. gu</i>	Not protected	N	N	The site is not protected from any threat.
Saudi Arabia	Kutambil Island	?	50-70	Coast	Terns	Not protected, proposed	Y	N	Eggs and young of the breeding spoonbills were taken by humans, exploitation of the seabird species may occur.
	Jizan Bay	?	Now none, late 1990s (20-40)	Coast mudflats	Terns	Not protected	Y	N	The site is much disturbed and faces a multitude of threats. Pollution by oil, sewage effluent and rubbish and extensive land reclamation for further urbanization, the later is reducing the area of inter-tidal flats available for feeding waterbirds. Human disturbance to birds using the area is high. Further landfill and urbanization and harbour through the middle of mudflats.
	Farasan Island	?	40-70	Island, shore	Terns	National Park	Y	N	Development of the naval base could have disastrous consequences for the terrestrial and marine wildlife of the area, especially shorebirds. Uncontrolled and intensive fishing causes considerable damage to reefs, from anchors and threatens the viability of the traditional artisanal fishery. Some time, sea birds eggs are collected for sale and personal consumption. Reintroduced predators: domestic cats and rats.
Yemen	Humar Island		6 (1979)				Y		
	Islet near Kamaran		10 (2002)				Y		
	Badi Island		18 (2002)				Y		
	Ho-deidah marshes		Y (2002)				Y		

Annex 8: Measures per site

	Designate the site as protected area and as Ramsar site.	Conduct strategic and project level Environmental Impact Assessment and audit of existing operation.	Develop and implement integrated (catchments/coastal zone) management plans for the site.	Identify management needs of habitat and implement necessary management actions to maintain the site in good ecological condition.	Adopt a new way to manage fish ponds.	Ensure that pollution guidelines/legislation are developed and enforced.	Prevent disturbance through legislation, planning, zoning and through enforcement of these rules as appropriate.	Enhance the habitat on the site (e.g. creation of breeding sites, rehabilitate/create wetlands) where necessary.
Belgium				Zwin area				
France	Seine Estuary							
Spain	Veta Adalí, Extremadura		Santoña, Ayamonte, Los Canchales Dam	Los Canchales Dam, Santoña Odiel marshes, Isla Cristina marshes, Cádiz Bay Ensenada de O Grove			Odiel marshes, Doñana marshes, Cadiz Bay, Isla Cristina, Ensenada de O Grove	Odiel marshes, Doñana marshes
Morocco	Smirt		Marais de Smir, Bas Loukkos, Merja Zerga, Lagunes de Sidi Moussa-Oualidia et Lagune de Khnifiss				Marais de Smir, Bas Loukkos, Merja Zerga, Lagunes de Sidi Moussa-Oualidia et Lagune de Khnifiss	Lower Loukkos (near Larache) : establishment of a breeding site Marais de Smir ; Lagune de Khnifiss
Gambia	BaobolonTanbi, Tanji							
Senegal	Senegal Delta		St Louis, Trois Marigots	St Louis				

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Bosnia & Herzegovina	3 sites, plus Karst poljes as Livanjsko and fish farms			Restoration of drained peat bog in Livanjsko Polje, preservation of wet Karts Poljes				
Croatia	Freshwater cyprinid fishpond, floodplain marshes along large rivers (Drava, Sava, Danube), atop over sites at the Adria wetlands on Pag Island)		Delta of Neretva river, Kolansko, M. and V. Blato (Pag island), basin plan for Sava and Drava has to provide protection to alluvial feeding sites.	Freshwater cyprinid fishponds, floodplain marshes along large rivers (Drava, Sava, Danube), freshwater supply for Neretva Delta and staging zones, coastal wetlands (e.g. Island of Pag).				Freshwater cyprinid fishponds
Czech Republic				Zliv				Zliv
Greece				Kerkini		Axios, Gallikos		
Hungary				Kiskunság, Hortobágy, Körös-Maros, Fertő-Hanság NP	Csaj-tó, Szeged, Hortobágy, Biharugra, Begécs, Apaj, Akasztó, Szakmár, Rétság			Csaj-tó, Natron lakes of Kiskunság, Tiszaalpár, Kolon-tó, Szeged, Gátér Fehér-tó, Apaj
Italy			Piallasse e Valli Ravennati Comacchio e Mezzano					
Libya	Farwa, Taourgha		Farwa, Taourgha					Benghazi
Macedonia FYR	Dojran Lake		Dojran Lake	Dojran Lake, Prespa Lake				Dojran Lake, Prespa Lake
Moldova				Beleu Scientific Reserve			Beleu Scientific Reserve	

Montenegro	Bojana Delta		Basin management plan for Bojana River including Lake Skadar	Remaining parts of Lagoon system in Bojana Delta, maintenance of salt pans Solana Ulcinj				
Serbia	Bečej Fish Farm, Jazovo Fish Farm, Kapetanski Rit Fish Farm, Tamiš River Valley (including also Baranda Fish Farm)		Bečej Fish Farm, Jazovo Fish Farm, Kapetanski Rit Fish Farm, Tamiš River Valley (that includes also Baranda Fish Farm)			Bečej Fish Farm, Jazovo Fish Farm, Kapetanski Rit Fish Farm, Tamiš River Valley (that includes also Baranda Fish Farm)	Bečej Fish Farm	
Slovakia			SPA Senné		SPA Senné, SPA Medzi-bodrožie	SPA Senné		
Tunisia			New Ramsar sites					
Turkey	Manyas L., Meriç D.		Tuz Lake Basin Management Plan apply for Tuz, Bolluk & Kulu Lakes by Specially Protected Areas. Authority under the Ministry of Environment & Forestry	Ramsar Management Plan for Manyas Lake, National Park management Plan for Meriç Delta applied by The General Directorate of Nature Conservation & National Parks.			Manyas L.	

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Armenia	Armash							
Azerbaijan	Kura river Delta, Lake Agzybir, Lake Makchmudchala, Lake Sarisu		Kura river Delta, Lake Agzybir, Lake Makchmudchala, Lake Sarisu, Lake Ak-Gel, Varvara w.r., Gizilagach reserve			Kura river Delta, Lake Agzybir, Lake Makchmudchala, Lake Sarisu, Lake Ak-Gel, Varvara w.r., Gizilagach reserve		
Georgia	Kolkheti Lowland							
Iran	Tashk, Parishan, Khour Khuran		Tashk-Parishan, Khour Khuran			Tashk, Parishan, Khour Khuran		
Jordan	River Jordan & Al-Karamah Dam			River Jordan & Al-Karamah Dam				
Kuwait	Bubiyah Island		Bubiyah Island					
Russia		Manych-Gudilo						
Tajikistan			Tigrovaya Balka Rybkhoz Ghozimalik	Tigrovaya Balka				
Uzbekistan	Tudakul lake		Tudakul lake	Tudakul lake			Tudakul lake	

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Djibouti	Aire Protégée Marine Musha Maskali		Aire Protégée Marine « Musha –Maskali »				Aire Protégée Marine « Musha – Maskali »	Aire Protégée Marine « Musha – Maskali »
Sudan	Dinder Park		Red Sea	Marwi dam				Dinder Park