

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 | + |

P. l. major

| 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 | ? |

P. l. archeri

| 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. |

P. l. balsaci

| 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 | ⑤ | | | | 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 | | | | 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) | | | | | | | 4 | | | | | | |
| Agriculture abandonment | | | | | | | | | | | | 3 | |
| 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 | | | |

| | | | | | | | | | | | | | | |
|--|--------------|-----------|---|---|--|---|---|--|---|---|---|---|---|---|
| Invasive alien species (directly impacting habitat) | | | | | | | | | | | | | 3 | |
| Accidental mortality | Bycatch | Hooking | | 3 | | | | | | | | | 5 | |
| | | Netting | | 3 | | | | | | | | | | |
| | | Poisoning | | 2 | | | | | | | | | | |
| | | Shooting | | 5 | | | 3 | | 0 | 5 | 5 | | | 0 |
| Pollution (affecting habitat and/or species) | | | | | | | | | | | | | | |
| Water pollution | Agricultural | | 0 | | | 3 | | | | 5 | | | | 0 |
| Sewage | | | | | | 3 | | | | | | | | |
| Natural disasters | | | | | | | | | | | | | | |
| Drought | | | | | | | 1 | | 0 | 5 | | 3 | | 3 |
| Temperature extremes | | | 0 | | | | | | | | | | | 0 |
| Fires | | | 0 | | | | | | | | | | | |
| Changes in native species dynamics | | | | | | | | | | | | | | |
| Intrinsic Factors | | | | | | | | | | | | | | |
| Limited dispersal | | | 0 | | | | | | | | 4 | | | |
| Human disturbance | | | | | | | | | | | | | | |
| Recreation/tourism | | | | | | 3 | | | 0 | | | | | 0 |
| Research | | | | | | | | | 0 | | | | | |
| Hunting | | | 3 | | | 3 | | | | 5 | 5 | | | 3 |

P. l. major

| 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 |

P. l. leucorodia (Continental)

| 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, implements 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. |
|----------------|---|---|--|---|---|--|------|------|--|

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 | <p>- Annual monitoring of the national breeding population, population dynamics at Grand Lieu and Brière, migration (colour ringing, satellite transmitter).</p> <p>- 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.</p> | <p>- No disturbance in the pioneer colony of Grand Lieu.</p> <p>- Dike restoration and hydraulic management.</p> <p>- Creation of hunting reserve.</p> <p>- Management of ponds and islands and management of the water level in the Moëze-Oleron nature reserve.</p> | 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 | <p>Monitoring of numbers on two sites: Merja zerga and Sidi Moussa-Walidia Lagunas.</p> <p>Winter census.</p> | 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 |
| Libya | 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 |

P. l. archeri and P. l. balsaci

| 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 |

P. l. major

| 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 | 'Blokkeerdijk' 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> , <i>Gobidae</i> (<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. |

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|----------------|------------------------------------|---|------------------------|---------------------------|--------------|--------------------------|---|---|--|
| | 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. |

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|-------------------|-------------------------------------|--|------------|--|--|-----------|--------|--------|--|
| 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. |

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|--------------|--------------------------------|-------------------|--|--|--|--|---|---|--|
| | 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 |

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|----------------|-------------------|--------------------------------|-----------|--|--|-----------------|---|---|---|
| | | | | | | | | | 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 | |

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|--------------------------|--------------------------|--|--|--|-------------------------------|---|---|--|
| 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) | Freswater | | | | 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 |

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|---------------|---------------------------------|------------------------|--------------------------------|--|--|-------------------|---|---|---|
| | | | | | | | | | 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. |

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|--|--|---------------------|----------------------------|--|-----|----------------|---|---|---|
| | 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. |

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|----------------|------------------|---|--|--|-------------------------|---|---|---|
| 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 | |

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|---------------------|-----------------------------------|------------|------------|-----|---------------|---|---|--|
| | 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'Argu in National Park | | Sea water | Shrimps, small fish | Day, night | National Park | Y | Y | Industrial fishing, Mechanical cockle dredging in the future. Oil exproation, 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). |

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|-------------------------|------|------------|-----------------------|-------------|--|--|--------------------------|--|-----------------------------|---|---|---|
| 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 |
|--------|----------------------------------|---------------------------------|-----------------------|---|---------------------|----------------|--|-----------------------------------|--------------------------|-----|-------------|--|
| Turkey | 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 breeding | Number Breeding Pairs | Habitat | Water | Feeding | 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>Avicenna 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 | | | | |

| | 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 |
|---------------------------------|---|---|--|---|---|---|---|---|
| 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 Ravnati 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. | |

| | 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 |
|-------------------|---|---|--|---|--------------------------------------|--|---|---|
| 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 | |

| | 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 |
|-----------------|---|---|--|---|--------------------------------------|---|---|---|
| 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 |