The assessment of trends and population sizes of a selection of waterbird species and populations from the coastal East Atlantic Flyway for Conservation Status Report 6 of The African Eurasian Waterbird Agreement

Wadden Sea Flyway Initiative, Wetlands International & Birdlife International

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1.Material and methods

1.1 Material

Wintering

In principle counts of waterbirds from January have been used. In a few cases counts from the beginning of February have been included as well when a count from January was missing.

In 2013 and especially 2014 an extra effort was made to count coastal sites on the Atlantic seaboard of Africa. This through a cooperation between the Wadden Sea Flyway Initiative (WSFI) and the Conservation Migratory Bird Project (CMB, as coordinated by BirdLife International). Data collected contributed to the International Waterbird Census (IWC) as coordinated by Wetlands International and the Import Bird Areas (IBA) project as coordinated by Birdlife International.

In addition to the data already hold in the IWC database, older data from grey literature from coastal sites in West Africa were added to the database by a project made possible through the WSFI and carried out by the University of Dakar.

For European countries data from the IWC database was used for trend calculations.

For European countries estimates of total wintering population sizes were used as presently reported by countries for the EU Birds Directive art 12 reporting and BiE3 project. For most wintering waterbird species these estimates are based on the January counts in these countries which also contribute to the IWC.

In addition to material mentioned also literature and expert judgment was used for missing data for the total estimates of population sizes.

1.2 Allocation of counts to populations

Based on the distribution limits of a population during wintering data from sites and countries were allocated to specific (flyway) populations. This allocation was done on the basis of literature (Scott & Rose 1996, Delany et al, 2009, the maps in the CSN tool and expert knowledge). Choices needed to be made to allocate pure for wintering distribution from the maps which depicts the distribution from a whole yearly cycle (summed distribution during breeding, migration and wintering).

1.3 Population trends

Wintering

Based on the likely consistency of the counted site boundaries through the years and the availability of counts over the years, a selection of the available data from the Atlantic coast of Africa was made for trend calculations. Data from 127 sites/sub-sites were selected, covering a good selection of parts of the important sites along the coast and as far as possible including sites from the different countries. However for several sites data is only available for recent years and these sites could presently not been used for the trend analyses.

For coastal Europe about 3000 sites were available. However depending on the population under review a rather changing amount of sites from Europe were included in the calculations (relatively large amount of sites with Eurasian Curlew and small amount with Curlew Sandpiper for instance).

The programme Uindex (Bell 1995) was used to account for missing counts (imputing) in the dataset per species/population. When possible, the imputing for Europe, Morocco – Sierra Leone, and Liberia -South Africa were performed in different strata.

Resulting yearly data points consisting of to much imputing (more than 70-90% imputing, depending on the population) were excluded before further trend calculations.

For the trend calculations the programme Trendspotter (Soldaat et al .2007) was used to assess trends.

1.4 Population sizes

Wintering

For the populations wintering in Africa in principle an estimate of the population size in the period 2010-2014 was made. As a basis all sites from the African Atlantic coast were used. However for this, clustering of sites was sometimes needed and excluding some as well to avoid having the same sites under different names in the dataset or having sites wich large overlapping parts as two different sites in the dataset which would cause overestimation. For the remaing sites (n=701) the average number per species for 2010-2014 was calculated and these averages were summed per country. For certain sites and countries older data, literature or expert judgement was used as the present data from 2010-2014 was only representing a small proportion of the tatal numbers present.

For Europe the wintering data as reported for art 12 and BiE 3 was used, mainly giving averages for 2008-2012.

Based on the allocation of countries to populations, country wintering totals were summed to reach total population sizes. For waders the results of 2010-2014 were compared with similar estimates from Smit & Piersma 1989 and Stroud et al 2006.

2. Species and populations with assessments

2.1 Summary of results

Table 1. List of species and populations included. As well if the assessment is based on wintering of breeding numbers (W/B), the old (short term) trend based on WPE5, the new (short term) trend (2003 - 2012 or 2014) from present study, the lower limit of the old population size based on WPE5 and the new lower limit of the population size from present study.

Population Name ⁱ	Winter /Breed ing	Trend old	Trend new	Pop size old	Pop size new
Phalacrocorax carbo lucidus, Coastal West Africa	W	STA	UNC/STA	35.000	40.000
Phoeniconaias minor, West Africa	W	STA	INC	15.000	25.000
Pluvialis squatarola, W Siberia & Canada/W Europe & W Africa	W	DEC?	STA	250.000	200.000
Charadrius hiaticula psammodroma, Canada, Greenland & Iceland/W & S Africa	W	DEC	UNC/STA	240.000	240.000
Limosa lapponica taymyrensis, Western Siberia/West & South-west Africa	W	DEC?	DEC	600.000	500.000
Calidris canutus canutus, Northern Siberia/West & Southern Africa	W	DEC?	DEC	400.000	250.000
Calidris alba, East Atlantic Europe, West & Southern Africa (win)	W	INC?	INC	120.000	220.000
Calidris minuta, N Europe/S Europe, North & West Africa	W	INC?	DEC	300.000	300.000
Calidris ferruginea, Western Siberia/West Africa	W	INC	DEC	1.000.000	350.000
Calidris alpina schinzii, Iceland & Greenland/NW and West Africa	W	STA	STA	940.000	730.000
Larus cirrocephalus poiocephalus, West Africa	W	STA	UNC	30.000	25.000
Larus genei, West Africa (bre)	W	STA	STA	22.500	20.000
Sterna caspia caspia, West Africa (bre)	W	STA	INC	45.000	50.000

2.2 Phalacrocorax carbo lucidus, Coastal West Africa

Trend data

Wintering



species, population	From	until	annual rate of change	Trend
Great Cormorant, lucidus, Coastal W Africa		2014	1,0	STA
Great Cormorant, lucidus, Coastal W Africa		2014	2,1	UNC

Trend interpretation

Trend analyses indicate unclear trend because of large scatter of data points, overall stable development.

wintering

	Great Cormorant lucidus	Comments
period	2010s	
Mauritania	24.838	
Senegal	6.736	
Gambia	77	
Guinee-Bissau	566	
Guinee	0	
Sierra leone	0	
Total	32.217	rounded to 40.000
WPE5	35.000 - 35.000	

Population size interpretation

Based on the IWC counts in 2010 – 2014, 32.217 Great Cormorants lucidus were counted in West-Africa. Based on expert opinion of completeness this counted number was raised to an estimate of 40.000.

2.3 Phoeniconaias minor, West Africa

Trend data

Wintering



Trend interpretation

Increasing trend on the basis of trend analyses

Population size data, Wintering

	Lesser Flamingo	Comments
period	2010s	
Mauritania	4.661	
Senegal	6.773	
Gambia	0	
Guinee-Bissau	399	
Guinee	11.614	
Sierra leone	0	
Total	23.447	rounded to 25.000
WPE5	20.000	

Population size interpretation

23.447 were counted, rounded to 25.000

2.4 Pluvialis squatarola, W Siberia & Canada/W Europe & W Africa

Trend data

Wintering



Wintering

		annual	
		rate of	
species, population	from uni	il change	Trend
Grey Plover, squatarola, E Atlantic (non-bre)	1979 202	.2 1,5	INC
Grey Plover, squatarola, E Atlantic (non-bre)	1988 202	.2 0,2	STA
Grey Plover, squatarola, E Atlantic (non-bre)	2003 202	.2 -1,8	STA

Trend interpretation

Trend analyses indicate stable trend.

Population size data, Wintering

Population size	Grey Plover	0		comments
Period	1980s	1990s	2010s	
Norway	0	0	0	
Sweden	0	3	0	
Denmark	100	500	200	
Germany	2000	9875	10500	
Netherlands	9700	27000	25010	
Belgium	100	470	257	
UK	21300	49347	43000	
Ireland	1200	5000	2850	
France	17300	24800	30500	
Spain	3600	5799	8381	
Portugal	6800	7969	7649	
Morocco	4000	6328	4936	
Mauritania	19300	15880	19107	
Senegal	800	4783	2214	
Gambia	100	100	50	
Guinee-Bissau	56700	39100	15448	estimates based on extrapolations from sample counts
Guinee	24500	28000	21000	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Sierra leone	6000	7232	4798	
Liberia	300	300	300	•
Ivory Coast	30	32		2010s questimate
Ghana	900	1510	1000	1980s en 2010s questimates
Тодо	155	75	235	
Benin	32	39	24	
Algeria	10	11	10	
Mali	10	10	10	based on Zwarts et al 2009
Niger	0	0	0	based on Brouwer & Mullié 2001
Total	174937	234163	197509	rounded to 200.000
WPE5			250000	

Population size interpretation 197.509 individuals were counted at the wintering grounds. Rounded to 200.000.

2.5 Charadrius hiaticula psammodroma, Canada, Greenland & Iceland/W & S Africa

Trend data

wintering



			annual	
			rate of	
species, population	from	until	change	Trend
Common Ringed Plover, (psammodroma)	1979	2014	-1,7	STA
Common Ringed Plover, (psammodroma)	2003	2014	-1,4	STA

Trend interpretation

Stable trend from 2003 according to trend analyses.

wintering

	Common Ringed Plover-			
	psammodroma			Comments
period	1980s	1990s	2010s	
Morocco	4300	19842	19915	
Mauritania	122200	60648	63664	
Senegal	3000	9061	6386	
Gambia	200	750	217	
Guinee-Bissau	57400	26300	27188	estimates based on extrapolations from sample counts
Guinee	70000	68000	71000	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Ciarra la ana	2400	640	624.4	2010s partly based on van der Winden et al 2005 and recent
Sierra leone	3400	648	6314	counts
Liberia	800	750	775	2010s questimate
Ivory Coast	1	2	0	2010
Ghana	3800	6159	4980	2010s questimate
Togo	100 150	115 226	66 107	
Benin Nigeria	0	228	0	
Cameroon	1000	1500	418	
Gabon	2180	2187	2172	2010s questimate
Congo	9	9	9	
Democratic Rep. Congo	9	9	9	
Angola	300	550	500	2010's questimate
Namibia	575	800	350	
South Africa	3000	5500	2500	2010s questimate
Total	272424	203056	206569	rounded and raised to 240.000
WPE5			285000	

Population size interpretation

206.569 were counted during January counts. Based on presumed underestimations raised to 240.000 birds.

2.6 Limosa lapponica taymyrensis, Western Siberia/West & South-west Africa

Trend data

wintering



			annual rate of	
species, population	from	until	change	Trend
Bar-tailed Godwit, taymyrensis, W, SW Africa (non-bre)	1979	2014	-1,3	DEC
Bar-tailed Godwit, taymyrensis, W, SW Africa (non-bre)	2003	2014	-1,3	DEC

Trend interpretation

Estimated decline based on wintering counts for the period of 2003-2014, also long-term decline for the period of 1979-2014.

Wintering

whitering	Bar-tailed Gotwit-			
	taymyrensis			
Period	1980s	1990s	2010s	comments
Tunisia	2100	791	1450	2010's questimate
Morocco	3000	7765	6962	
Mauritania	542200	348994	281193	
Senegal	2500	3811	5434	
Gambia	300	400	279	
Guinee-Bissau	155600	108700	128661	estimates based on extrapolations from sample counts
Guinee	30000	35000	64000	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Sierra leone	3000	2776	3189	2010s partly based on van der Winden et al 2005 and recent counts
				1980s en 2010s
Liberia	100	50	75	questimates
Ivory Coast	0	0	0	2010s questimate
Ghana	170	304	230	1980s en 2010s questimates
Тодо	130	133	130	2010's questimate
Benin	0	0	2	
Nigeria	0	0	0	
Cameroon	3	0	6	
Gabon	5000	5087	5000	2010's questimate
Congo	0	0	0	
Democratic Rep. Congo	0	0	0	
Angola	500	500	250	2010's questimate
Namibia	3000	3000	1767	
South Africa	300	400	255	
Total	745803	516920	497433	rounded to 500.000
WPE5			600000	

Population size interpretation 497.433 individuals counted in the wintering range. Rounded to 500.000 individuals.

2.7 Calidris canutus canutus, Northern Siberia/West & Southern Africa

Trend data

Wintering



			annual	
			rate of	
species, population	From	until	change	trend
Red Knot, canutus	1979	2014	-1,8	DEC
Red Knot, canutus	2003	2014	-1,8	DEC

Trend interpretation

Estimated decline since 2003 and also since 1979.

wintering

	Red knot canutus			
period	1980s	1990s	2010s	comments
Morocco	2500	9211	801	
Mauritania	364300	259358	195765	
Senegal	800	3910	950	
Gambia	200	0	0	
				estimates based on extrapolations
Guinee-Bissau	143800	31300	44749	from sample counts
				2010s based on Trolliet & Fouquet
Guinee	8000	8000	4560	2004, 1980s questimate
				2010s based on van der Winden et al
Sierra leone	2000	2000	2000	2005
Liberia	100	100	100	2010s questimate
Ivory Coast	0	0	0	
Ghana	50	74	62	2010s questimate
Тодо	0	0	0	
Benin	0	0	0	
Nigeria	0	0	0	
Cameroon	0	0	0	
Gabon	365	365	367	2010s questimate
Congo	0	0	0	
Democratic Rep.				
Congo	0	0	0	
Angola	200	200	50	2010s questimate
Namibia	500	500	24	
South Africa	6000	6000	187	
Total	528815	321018	249614	rounded to 250.000
WPE5			400000	

Population size interpretation 249.614 individuals at the wintering grounds. Rounded to 250.000 birds.

2.8 Calidris alba, East Atlantic Europe, West & Southern Africa (win

Trend data

wintering



	annua	al rate	
species, population	from until of cha	ange	Trend
Sanderling, E Atlantic (non-bre)	1979 2014	4,3	INC
Sanderling, E Atlantic (non-bre)	2003 2014	4,3	INC

Trend interpretation

Trend analyses indicate increasing trend.

Population size data, wintering

	Sanderling			
period	1980s	1990s	2010s	comments
Norway	0	0	0	
Sweden	0	3	0	
Denmark	200	300	326	
Germany	1600	1184	3600	
Netherlands	4000	4000	10660	
Belgium	600	350	333	
UK	13800	23236	17000	
Ireland	2000	2750	5280	
France	3000	8000	24900	
Italy	100	150	401	
Spain	1300	1332	4765	
Portugal	200	440	3728	
Tunisia	300	3000	1600	
Morocco	2100	4081	1030	
Mauritania	21200	21580	53618	
Senegal	7300	3591	5993	
Gambia	500	500	181	
				estimates based on
				extrapolations from sample
Guinee-Bissau	10800	24300	35000	counts
				2010s based on Trolliet &
Guinee	10000	10000	15300	Fouquet 2004, 1980s questimate
Guillee	10000	10000	19900	2010s partly based on van der
				Winden et al 2005 and recent
Sierra leone	8000	8056	3124	counts
Liberia	300	300	300	2010s questimate
Ivory Coast	50	50	52	
Ghana	4700	4716	4700	1980s & 2010s questimate
Тодо	1500	1500	1516	1980s & 1990s questimate
Benin	24	24	10	
				rounded and accounting for
Total	93574	123443	193418	underestimates 220.000
WPE5			120000	

Population size interpretation

193,418 individuals at the wintering areas in the 2010s. Rounded and raised to 220.000.

2.9 Calidris minuta, N Europe/S Europe, North & West Africa

Trend data

Wintering



			annual rate of	
species, population	from	until	change	Trend
Little Stint, Europe & West Africa (non-bre)	1980	2014	-4,3	DEC
Little Stint, Europe & West Africa (non-bre)	2003	2014	-4,3	DEC

Trend interpretation

Wintering numbers show a rapid decrease in the short-term (2003-2014) and long term (1980-2014).

	Little Stint			
Period	1980s	1990s	2010s	comments
France	300	1500	900	2010's questimate
Spain	1600	8630	13533	
Portugal	400	1309	422	
Italy	12500	3000	1881	
Tunisia	22900	8297	16000	2010's questimate
Algeria	2300	237	1269	2010's questimate
Morocco	2000	17092	25471	
Mauritania	30600	15306	27637	
Senegal	15000	20549	7603	
Gambia	500	500	796	
Guinee-Bissau	123000	59700	11835	estimates based on extrapolations from sample counts
Guinee	8930	8500	9360	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Sierra leone	2300	2808	1800	2010s partly based on van der Winden et al 2005 and recent counts
Liberia	200	200	200	1980s en 2010s questimates
Ivory Coast	14	19	9	
Ghana	12000	12353	12000	2010's questimate
Тодо	11	11	11	
Benin	72	56	88	
Nigeria	100	199	14	
Cameroon	20	20	2	
Gabon	13042	13087	12997	2010's questimate
Mali	100000	100000	100000	based on Zwarts et al 2009
Niger	27000	27000	27000	based on Brouwer & Mullié 2001
Burkina Faso				
Totaal	374789	300373	270828	rounded and raised to 300.000
WPE5			300000	

Population size interpretation 270,828 individuals at the wintering areas. Rounded and raised to 300.000.

2.10 Calidris ferruginea, Central Siberia/SW Asia, E & S Africa

Trend data

Wintering



			annual	
			rate of	
species, population	from	until	change	trend
Curlew Sandpiper, W Africa (non-bre)	1979	2014	-2,2	DEC
Curlew Sandpiper, W Africa (non-bre)	2003	2014	-2,2	DEC

Trend interpretation

Decrease in the short-term (2003-2014) and long term (1979-2014).

Population size data, wintering

i opulation si	ize uata, winter ing			
	Curlew Sandpiper			
period	1980s	1990s	2010s	Comments
Spain	1200	952	935	1980s questimate
Portugal	400	143	397	1980s questimate
Italy	0	5	0	
Tunisia	5100	7100	6100	
Algeria	0	0	0	
Morocco	200	769	485	2010's questimate
Mauritania	157700	238802	61511	
Senegal	7500	16981	3739	
Gambia	200	3000	192	
Guinee-Bissau	249300	326500	129857	estimates based on extrapolations from sample counts
Guinee	94000	94000	100000	1980s & 2010s questimate
Sierra leone	30000	30072	25000	2010s partly based on van der Winden et al 2005 and recent counts
Liberia	700	650	680	1980s en 2010s questimates
Ivory Coast	0	0	0	
Ghana	19000	19503	19000	1980s & 2010s questimate
Тодо	2	2	2	
Benin	100	24	181	1980s questimate
Mali	0	0	0	
Burkina Faso	0	0	0	
totaal	565402	738503	348079	rounded and raised 350.000 - 450.000, range because of large uncertainties
WPE5			1000000	

Population size interpretation

Only 348,079 individuals in the 2010s. Rounded and raised to an estimate of 350.000-450.000 because of large uncertainties at several countries. This represents much lower numbers than the earlier estimates reviewed by Delany et al. (2009).

2.11 Calidris alpina schinzii, Iceland & Greenland/NW and West Africa

Trend data

wintering



			annual	
			rate of	
species, population	from	until	change	Trend
Dunlin, schinzii, Iceland (bre)	1979	2014	-0,5	STA
Dunlin, schinzii, Iceland (bre)	2003	2014	-0,5	STA

Trend interpretation

Stable on the short term (2003-2014), and stable on the long term (1979-2014).

	Dundin			
	Dunlin-			
	schinzii-			
	Iceland			
period	1980s	1990s	2010s	comments
Mauritania	779200	948776	722860	
Senegal	800	827	1667	
Gambia	10000	200	1	
Guinee-Bissau	1800	710	363	estimates based on extrapolations from sample counts
Guinee	129	129	129	2010s based on Trolliet & Fouquet 2004, 1980s &1990s questimate
Sierra leone	30	30	30	2010s partly based on van der Winden et al 2005 and recent counts, 1980s and 1990s questimate
				rounded and raised to
Total	791959	950672	725050	730.000-800.000
WPE5			950000	

Population size interpretation 725,305 individuals counted in the 2010s. Rounded and raised to 730.000 – 800.000.

2.12 Larus cirrocephalus poiocephalus, West Africa

Trend data

Wintering



	annual	
	rate of	
species, population	from until change trend	
Grey-headed Gull, poiocephalus, West Africa	1997 2014 -3,6 UNC	
Grey-headed Gull, poiocephalus, West Africa	2003 2014 -3,6 UNC	

Trend interpretation

unclear trend on the basis of trend analyses.

Wintering

	Grey-headed Gull	
period	2010s	comments
Mauritania	106	
Senegal	13687	
Gambia	5707	
Guinee-Bissau	1055	
Guinee	1305	
Sierra leone	80	
Liberia	0	
Ivory Coast	0	
Ghana	0	
Mali	400	Zwarts et al 2009
Niger	588	Brouwer & Mullié 2001
Chad	500	questimate
Total	23428	rounded and raised to 25.000 - 30.000
WPE5	30000	

Population size interpretation 23.428 individuals counted in Januari. Rounded and raised to an estimate of 25.000 -30.000.

2.13 Larus genei, West Africa (bre)

Trend data

wintering



			annual rate of	
species, population	from	until	change	trend
Slender-billed Gull, West Africa	1997	2014	-1,0	STA
Slender-billed Gull, West Africa	2003	2014	-1,0	STA

Trend interpretation

Stable trend on the basis of trend analyses.

wintering

	Slender-billed Gull	
Period	2010s	comments
Morocco	158	
Mauritania	5462	
Senegal	9686	
Gambia	1457	
Guinee-Bissau	567	
Guinee	2	
		rounded and raised to
Total	17332	20.000
WPE5	22500	

Population size interpretation

17.332 individuals counted in January, rounded to 20.000. This wintering number is rather close to the breeding estimate; Keijl *et al.* (2001) population estimate of 7,500 pairs (22,500 birds).

2.14 Sterna caspia caspia, West Africa (bre)

Trend data

Wintering



			annual	
			rate of	
species, population	from	until	change	trend
Caspian Tern, W Africa (bre)	1993	2014	3,4	INC
Caspian Tern, W Africa (bre)	2003	2014	3,4	INC

Trend interpretation

increasing trend on the basis of trend analyses.

Wintering

	Caspian Tern	
Period	2010s	Comments
Mauritania	7622	
Senegal	11582	
Gambia	1901	
Guinee-Bissau	21267	
Guinee	3700	
Sierra leone	70	
Liberia	50	
Ivory Coast	162	
Ghana	0	
Тодо	94	
Benin	0	
		rounded and raised to
Total	46448	50.000
WPE5	53000	

Population size interpretation

46.448 individuals counted in January, rounded to 50.000.

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Smit & Piersma 1989

Appendix

Summary. Additional species and populations with data about wintering numbers counted during the 2010-2014 period and results of trend calculations (period 2003-2014) on the basis of Januari counts.

Population Name ⁱⁱ	Trend	Counted Nr
Pelecanus onocrotalus, West Africa	INC	(51.128)
Egretta gularis gularis, West Africa	INC	(15.375)
Platalea leucorodia leucorodia, West Europe/West Mediterranean & West Africa	INC	(18.647)
Phoenicopterus roseus, West Africa	STA	(110.500)
Haematopus ostralegus ostralegus, South & West Europe & NW Africa		(901.581)
Recurvirostra avosetta, Western Europe & North-west Africa (bre)	INC	(79.095)
Charadrius alexandrinus alexandrinus, West Europe & West Mediterranean/West Africa	STA	(51.189)
Numenius phaeopus phaeopus/islandicus,	INC	(131.865)
Numenius arquata arquata, Europe/Europe, North & West Africa	STA	(549.185)
Tringa erythropus, N Europe/Southern Europe, North & West Africa	STA	(17.090)
Tringa totanus totanus, Northern Europe (breeding)	STA	(137.107)
Tringa nebularia, Northern Europe/SW Europe, NW & West Africa	INC	(35.307)
Arenaria interpres interpres, Northern Europe/West Africa	STA	(28.089)
Sterna nilotica nilotica, Western Europe/West Africa		(33.178)
Sterna sandvicensis sandvicensis, Western Europe/West Africa		(33.592)
Sterna maxima albidorsalis, West Africa (bre)		(62.816)
Sterna hirundo hirundo, wintering		(51.206)
Sterna albifrons albifrons/guineae, wintering		(1.166)
Sterna balaenarum, Namibia & South Africa/Atlantic coast to Ghana	UNC	(507)
Chlidonias niger niger, Europe & Western Asia/Atlantic coast of Africa		(37.877)
Rynchops flavirostris, Coastal West Africa & Central Africa		(3.992)

Pelecanus onocrotalus, West Africa

Trend data, winter



			annual rate of	
species, population	from	until	change	Trend
Great White Pelican, W Africa	1989	2014	6,4	INC
Great White Pelican, W Africa	2003	2014	6,4	INC

Population size data, winter

	Great White Pelican	Comments
Period	2010s	
Mauritania	16239	
Senegal	28951	
Gambia	162	
Guinee-Bissau	355	
Guinee	716	
		2010s partly based on van der Winden et al 2005 and
Sierra leone	458	recent counts
Mali	2000	From Zwarts et al 2009
Total	48881	
WPE5	60000	

Egretta gularis gularis, West Africa

Trend data, Wintering



			annual rate of	
species, population	from	until	change	Trend
Western Reef-egret, gularis	1997	2014	4,0	INC
Western Reef-egret, gularis	2003	2014	4,0	INC

Population size data, wintering

	Western Reef-egret	Comments
period	2010s	
Morocco	3	
Mauritania	2172	
Senegal	4599	
Gambia	182	
Guinee-Bissau	1526	
Guinee	2000	2010s partly based on Trolliet & Fouquet 2004 and recent counts,
Sierra leone	3656	2010s partly based on van der Winden et al 2005 and recent counts
Liberia	50	Questimate
Ivory Coast	53	
Ghana	544	
Тодо	150	Questimate
Benin	189	
Nigeria	150	Questimate
Cameroon	120	
Gabon	9	
Mali	250	based on Zwarts et al 2009
total	15652	
WPE5	55000	
Platalea leucorodia leucorodia, West Europe/West Mediterranean & West Africa

Trend data, Wintering



			annual	
			rate of	
species, population	from	until	change	Trend
Eurasian Spoonbill, leucorodia, E Atlantic	1979	2014	3,7	INC
Eurasian Spoonbill, leucorodia, E Atlantic	2003	2014	3,7	INC

NB wintering trend excludes P. l. balsaci on Banc d'Arguin

	Eurasian Spoonbill	Comments
period	2010s	
France	530	
Spain	2500	
Portugal	2520	
Morocco	384	
Mauritania	9813	excluding balsaci
Senegal	2563	
Gambia	0	
Guinee-Bissau	0	
total	18310	
WPE5	11300	

Phoenicopterus roseus, West Africa

Trend data, wintering



			annual rate of	
			fute of	
species, population	From	until	change	trend
Greater Flamingo, W Africa	1989	2014	-1,2	STA
Greater Flamingo, W Africa	2003	2014	0,8	STA

	Greater Flamingo	Comments
Period	2010s	
Mauritania	64078	
Senegal	15904	
Gambia	14	
Guinee-Bissau	4477	
Guinee	13097	
Sierra leone	25	
Mali	0	
Niger	0	
Total	97595	
WPE5	70000	

Haematopus ostralegus ostralegus

	Oystercatcher			
period	1980s	1990s	2010s	comments
				2010's based on
				van de Pol et al
Iceland	3000	3000	2400	2014
				1980's and 1990's
Norway	460	460	460	questimates
Sweden	50	50	50	2010s questimate
Denmark	16100	29000	43000	
Germany	175000	221879	205000	
Netherlands	307300	290000	179883	
Belgium	600	2250	1425	2010 questimate
UK	279500	350834	340000	
Ireland	32500	50000	45480	
France	40000	44500	51381	
Italy	15	15	15	2010s questimate
Spain	1500	1985	3155	
Portugal	400	893	894	
Algeria	70	70	70	2010s questimate
Tunisia	2900	2035	2035	2010s questimate
Morocco	1400	2481	2102	
Mauritania	8200	5084	9338	
Senegal	2500	6090	3509	
Gambia	300	50	10	
Guinee-Bissau	2400	7100	11040	
Guinee	1000	1000	230	
Sierra leone	100	100	104	
totaal	875295	1018876	901581	

Recurvirostra avosetta, Western Europe & North-west Africa (bre)



Рор	oulation size data	, wintering	

	Pied Avocet			
Period	1980s	1990s	2010s	comments
Germany	500	38	0	
Netherlands	700	1000	3359	
Belgium	0	150	200	
UK	500	2152	7500	
Ireland	0	0	0	
France	16500	17700	20188	
Spain	5100	13987	11791	
Portugal	12600	11189	8469	
Morocco	2900	6590	16780	
Mauritania	2500	1853	709	
Senegal	12500	4121	2606	
Gambia	100	500	24	
Guinee-Bissau	300	700	1127	estimates based on extrapolations from sample counts
Guinee	5000	16000	5602	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Sierra leone	600	600	609	2010s partly based on van der Winden et al 2005 and recent counts

Total	59800	76580	78964	
WPE5			73000	

Charadrius alexandrinus alexandrinus, West Europe & West Mediterranean/West Africa

Trend data, Wintering



Wintering

			annual rate of	
species, population	from	until	change	trend
Kentish Plover, alexandrinus, E Atlantic, W Med	1990	2013	1,7	INC
Kentish Plover, alexandrinus, E Atlantic, W Med	2003	2013	1,7	INC

Population	size	data.	wintering
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	Kentish Plover	Kentish Plover	Kentish Plover	comments
period	1980s	1990s	2010s	
Netherlands	0	0	1	
Belgium	0	0	0	
UK	0	1	0	
Ireland	0	0	0	
France	300	250	1405	
Spain	4100	4500	7352	
Portugal	1100	2982	3742	
Italy	2300	3000	2650	
Tunisia	13500	9286	11000	
Algeria	1000	1000	1000	
Morocco	3600	5000	13523	
Mauritania	18500	7000	6902	
Senegal	3000	4000	1192	
Gambia	100	250	3	
Guinee-Bissau	18600	9000	1564	estimates based on extrapolations from sample counts
Guinee-Bissau	18600	9000	1564	2010s based on Trolliet &
				Fouquet 2004, 1980s
Guinee	2000	3500	500	

Sierra leone	142	216	68	2010s partly based on van der Winden et al 2005 and recent counts
Liberia	100	50	75	questimate
Ivory Coast	0	0	0	
Ghana	100	6	207	19802 questimate
Тодо	2	2	2	
Benin	8	4	12	
total	68452	50047	51198	
WPE5			66000	

Numenius phaeopus islandicus, Iceland, Faroes & Scotland/West Africa

Numenius phaeopus phaeopus, Northern Europe/West Africa



			annual	
			rate of	
species, population	from	until	change	trend
Whimbrel, phaeopus, NE Europe (bre)	1979	2014	4,5	INC
Whimbrel, phaeopus, NE Europe (bre)	2003	2014	4,6	INC

	Whimbrel	Whimbrel	Whimbrel	comments
period	1980s	1990s	2010s	
Spain	400	152	896	
Portugal	200	151	442	
Tunisia	300	342	300	
Morocco	600	204	182	
Mauritania	18600	15695	42412	
Senegal	2300	4950	3834	
Gambia	1000	300	99	
Guinee-Bissau	41500	22000	34284	estimates based on extrapolations from sample counts
Guinee	36000	36000	36000	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Sierra leone	4000	1288	7073	2010s based on van der Winden et al 2005
Liberia	1200	1200	1200	2010s questimate
Ivory Coast	15	22	5	
Ghana	300	465	383	2010s questimate
Тодо	100	133	79	
Benin	240	141	339	

Nigeria	40	40	42	
				partly based on van der
Cameroon	1000	2000	222	Waard et al 2007
				1980s & 2010s
Gabon	4000	4100	4065	questimate
totaal	111795	89183	131856	
WPE5			870000	

Numenius arquata arquata, Europe/Europe, North & West Africa



			annual rate of	
species, population	from	until	change	trend
Eurasian Curlew, arquata	1979	2012	2,2	INC
Eurasian Curlew, arquata	2003	2012	0,3	STA

	Population	size	data,	Wintering
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	Curlew	Curlew	Curlew	comments
period	1980s	1990s	2010s	
Norway	0	0	0	
Sweden	125	125	125	
Denmark	1200	2500	15300	
Germany	40000	88481	100000	
Netherlands	61600	130000	179291	
Belgium	900	5000	15166	
UK	91200	130703	150000	
Ireland	100000	25500	27830	
France	16100	18500	36056	
Spain	2000	3075	4629	
Portugal	1800	2467	1218	
Italy	4000	2000	6207	
Algeria	100	72	80	
Morocco	1000	946	308	
Mauritania	8000	6689	4004	
Senegal	200	1166	417	
Gambia	100	50	4	
Guinee-Bissau	8200	9300	4148	estimates based on extrapolations from sample counts

				2010s based on Trolliet &
				Fouquet 2004, 1980s
Guinee	3940	3940	3940	questimate
				2010s partly based on van
Sierra leone	460	460	463	der Winden et al 2005
total	340925	430974	549185	
WPE5			840000	

Tringa erythropus, N Europe/Southern Europe, North & West Africa



			annual rate of	
species, population	from	until	change	trend
Spotted Redshank, Europe (bre)				
Spotted Redshank, Europe (bre)	1993	2014	-0,5	STA
Spotted Redshank, Europe (bre)	2003	2014	-0,5	STA

	Spotted Redshank			
period	1980s	1990s	2010s	comments
France	100	250	316	
Italy	1100	700	900	2010s questimate
Spain	100	1160	632	
Portugal	100	48	80	
Greece	46	46	46	2010s questimate
Albania	200	200	200	2010s questimate
Tunisia	1300	125	713	2010s questimate
Algeria	100	146	123	2010s questimate
Morocco	300	64	18	
Mauritania	200	216	46	
Senegal	800	87	228	
Gambia	200	10	0	
Guinee-Bissau	100	0	275	
Guinee	56	50	61	
Sierra leone	0	0	0	
Liberia	0	0	0	
Ivory Coast	3	1	5	
Ghana	5770	8314	7000	1980s & 2010s questimate
Тодо	67	33	101	
Benin	88	149	27	

				1980s & 2010s
Nigeria	1659	1659	1659	questimate
				1980s & 2010s
Cameroon	100	100	100	questimate
				based on Zwarte et
Mali	4557	4557	4557	al 2009
totaal	16946	17915	17088	
WPE5			85000	

Tringa totanus totanus, Northern Europe (breeding)



species, population	from	until	annual rate of change	trend
	nom	untii	change	uenu
Common Redshank, totanus Northern Europe				
(breeding)	1979	2014	0,7	STA
Common Redshank, totanus Northern Europe				
(breeding)	2003	2014	0,7	STA

	Redshank- totanus			
period	1980s	1990s	2010s	comments
Spain	5000	3308	6740	
Portugal	4700	4575	3321	
Morocco	6600	2253	1687	
Mauritania	50800	107279	69292	
Senegal	1500	1550	1666	
Gambia	100	10	27	
Guinee-Bissau	82600	38400	21780	estimates based on extrapolations from sample counts
Guinee	36000	48000	24270	2010s based on Trolliet & Fouquet 2004, 1980s questimate
Sierra leone	8000	8000	8315	2010s partly based on van der Winden et al 2005
total	195300	213375	137098	
WPE5			240000	

Tringa nebularia, Northern Europe/SW Europe, NW & West Africa



Trend data, wintering

			annual	
			rate of	
species, population	from	until	change	trend
Common Greenshank, NW Europe (bre)	1993	2014	2,1	INC
Common Greenshank, NW Europe (bre)	2003	2014	2,1	INC

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	Greenshank			
period	1980s	1990s	2010s	comments
Denmark	0	0	0	
Germany	0	4	2	
Netherlands	0	5	44	
UK	400	455	770	
Ireland	400	667	890	
France	100	122	328	
Italy	500	150	325	2010s questimate
Albania	62	62	62	2010s questimate
Spain	200	517	3428	
Portugal	100	189	568	
Tunisia	700	118	409	2010s questimate
Algeria	39	39	39	2010s questimate
Morocco	400	169	68	
Mauritania	1300	4252	7101	
Senegal	2300	1241	746	
Gambia	200	200	62	
				estimates based on extrapolations from sample
Guinee-Bissau	3800	1400	2388	counts

Guinee	5900	8300		2010s based on Trolliet & Fouguet 2004,
Guinee		0500	5005	10040012004,
Sierra leone	1257	680		2010s partly based on van der Winden et al 2005
Liberia	3000	3000	3000	1980s & 2010's questimate
Ivory Coast	15	6	24	
Ghana	3300	5279	4290	1980s & 2010's questimate
Тодо	87	87	87	1980s & 2010's questimate
Benin	279	411	146	
Nigeria	49	79	18	
Mali	3000	3000	3000	
Niger	2000	2000	2000	
Burkina Faso				
total	29388	32433	35294	
WPE5			230000	

Arenaria interpres interpres, Northern Europe/West Africa



			annual	
			rate of	
species, population	from	until	change	trend
Ruddy Turnstone, interpres, Fennoscan, NW Russia (bre)	1993	2014	-1,1	STA
Ruddy Turnstone, interpres, Fennoscan, NW Russia (bre)	2003	2014	-1,1	STA

	Turnstone-Scan/Rus			
period	1980s	1990s	2010s	comments
Spain	1000	1039	1800	
Portugal	900	958	3000	
Italy	50	50	50	
Tunisia	500	1164	832	2010's questimate
Algeria	0	0	0	
Morocco	600	1590	996	
Mauritania	12000	7702	14247	
Senegal	1500	1000	710	
Gambia	400	250	80	
Guinee-Bissau	14900	7900		estimates based on extrapolations from sample counts
Guinee	5500	5500		2010s based on Trolliet & Fouquet 2004,
Sierra leone	700	700		2010s partly based on van der Winden et al 2005
Liberia	0	0	0	
Ivory Coast	0	0	0	

Ghana	170	230	200	2010s questimate
Тодо	6	6	6	
Benin	13	10	16	
totaal	38239	28099	27039	
WPE5			73000	

Sterna nilotica nilotica, Western Europe/West Africa

	Gull-billed Tern	
Period	2010s	comments
Spain	5	
Portugal	0	
Morocco	0	
Mauritania	1552	
Senegal	1677	
Gambia	77	
Guinee-Bissau	17610	
Guinee	5309	
Sierra leone	776	
Liberia	300	
Ivory Coast	1000	
Ghana	0	
Тодо	0	
Benin	7	
Nigeria	0	
Cameroon	3	
		Zwarts et al
Mali	4000	2009

		Brouwer &
Niger	863	Mullié 2001
Totaal	33178	
WPE5	17500	

Sterna sandvicensis sandvicensis, Western Europe/West Africa

	Sandwich Tern	
Period	2010s	comments
UK	24	
Ireland	1	
France	700	
Italy		
Spain	1800	
Portugal	316	
Algeria	0	
Morocco	752	
Mauritania	2235	
Senegal	2282	
Gambia	526	
Guinee-Bissau	10375	
Guinee	3368	
Sierra leone	1169	
Liberia	150	
Ivory Coast	177	
Ghana	500	
Тодо	1170	
Benin	69	
Nigeria	50	

Cameroon	36	
Gabon	539	
Congo	150	
Democratic Rep. Congo	100	
Angola	137	
Namibia	4263	
South Africa	2705	
Total	33592	
WPE5	168000	

Sterna maxima albidorsalis, West Africa (bre)

	Royal Tern	
period	2010s	comments
Morocco	2	
Mauritania	882	
Senegal	2212	
Gambia	1246	
Guinee-Bissau	7711	
Guinee	25541	
Sierra leone	3004	
Liberia	150	
Ivory Coast	168	
Ghana	524	
Тодо	300	
Benin	373	
Nigeria	3000	
Cameroon	4837	
Gabon	8555	
Congo	3000	
Democratic Rep. Congo	1000	
Angola	300	
Namibia	11	
total	62816	
WPE5	225000	

Sterna hirundo hirundo, wintering

	Common Tern	
Period	2010s	comments
UK	2	
Ireland	0	
Spain	46	
Portugal	0	
Morocco	0	
Mauritania	43	
Senegal	89	
Gambia	16	
Guinee-Bissau	3371	
Guinee	556	
Sierra leone	2689	
Liberia	5	
Ivory Coast	5	
Ghana	500	
Тодо	0	
Benin	3	
Nigeria	0	
Cameroon	1	
Gabon	113	
Democratic Rep. Congo	100	
Angola	470	
Namibia	22519	

South Africa	20677	
Total	51206	
WPE5	1250000	

Sterna albifrons albifrons, Eastern Atlantic (bre) & Sterna albifrons guineae

	Little Tern albifrons	
period	2010s	comments
France	0	
Spain	4	
Portugal	2	
Morocco	0	
Mauritania	1160	
Senegal	1985	
Gambia	157	
Guinee-Bissau	8017	
Guinee	2902	
Sierra leone	5117	
Liberia	80	
Ivory Coast	81	
Ghana	655	
Тодо	18	
Benin	18	
Nigeria	500	
Cameroon	533	
Gabon	61	
Mali	350	
Niger	170	
total	21810	

Sterna balaenarum, Namibia & South Africa/Atlantic coast to Ghana



Trend data, wintering

			annual	
			rate of	
species, population	from	until	change	trend
Damara Tern, SW Africa (bre)	1992	2012	-4,2	UNC
Damara Tern, SW Africa (bre)	2003	2012	-4,2	UNC

Population size data

	Damara Tern	comments
Period	2010s	
Angola	160	
Namibia	339	
South Africa	8	
total	507	
WPE5	14000	

Chlidonias niger niger, Europe & Western Asia/Atlantic coast of Africa

	Black Tern	
Period	2010s	comments
France	0	
Spain	2	
Morocco	2	
Mauritania	41	
Senegal	695	
Gambia	0	
Guinee-Bissau	321	
Guinee	73	
Sierra leone	2704	
Liberia	100	
Ivory Coast	100	
Ghana	227	
Тодо	729	
Benin	4882	
Nigeria	1000	
Cameroon	690	
Gabon	5111	
Congo	50	
Democratic Rep. Congo	50	
Angola	100	
Namibia	21000	
South Africa	0	
Total	37877	
WPE5	750000	

Rynchops flavirostris, Coastal West Africa & Central Africa

	African	
	Skimmer	
Period	2010s	Comments
Senegal	0	
Gambia	0	
Guinee-Bissau	0	
Guinee	368	
Sierra leone	240	
Liberia	0	
Ivory Coast	4	
Ghana	2	
Тодо	0	
Benin	0	
Nigeria	0	
Cameroon	1888	
Gabon	890	
Congo	600	
Total	3992	
WPE5	10000	