

Black Tern (*Chlidonias niger*) numbers and distribution

Russian and European breeding populations migrate almost entirely to sub-Saharan Africa, where distribution is predominantly coastal (Figure 1). January counts are concentrated along the west African seaboard from Senegal to South Africa and the highest concentrations have been recorded in Namibia. Important breeding and staging areas have been identified in Russia.

The highest January peak counts have been recorded in Namibia at Walvis Bay, where 61,015 were counted in 2004, and Sandwich Harbour where 24,500 were counted in 1998. In Russia, 15,000 have been recorded staging at the Neman River Delta (Svazas *et al.* 2003) and 5,000 at Kyzlar Bay (Djamirzoyev *et al.* 2004). The highest peak count in West Africa was recorded at Lac Nokoue, Benin, where 4,227 were counted in 1998. A total of 3,198 at Hadejia-Nguru, Nigeria, in 1999 is the highest total from an inland site in Africa. Peak counts exceeding 1,000 were made at four sites in Ghana, four in Benin and two in Gabon. The highest of these were at the Densu Delta and at Keta Lagoon (both in Ghana) where totals around 2,400 were counted in 1997 and 2002.

References

Djamirzoyev G., G. Magomedov, Yu. Pishvanov & L. Prilutskaya. 2004. *Birds of Dagestansky Nature Reserve*. Makhachkala. 95 pp. (In Russian)

Svazas S., A. Kozulin, G. Grishanov, M. Maximov, V. Rasomavicius, L. Raudonikis, V. Baichorov, A. Skuratovich, L. Balciauskas, E. Drobelys & D. Grishanov. 2003. Important Transboundary Belarussian-Lithuanian and Lithuanian-Russian Wetlands. Institute of Ecology of Vilnius University & "OMPO Vilnius" Publishers. Vilnius. 96 pp.

From:

Delany, S., Veen, J. & Clark, J.A. (eds) 2006. *Urgent preliminary assessment of ornithological data relevant to the spread of Avian Influenza in Europe*. Report to the European Commission. Study contract: 07010401/2005/425926/MAR/B4. Authors: Atkinson, P.W., Clark, J.A., Delany, S., Diagana, C.H., du Feu, C., Fiedler, W., Fransson, T., Gauthier-Clerc, M., Grantham, M.J., Gschweng, M., Hagemeijer, W., Helmink, T., Johnson, A., Khomenko, S., Martakis, G., Overdijk, O., Robinson, R.A., Solokha, A., Spina, F., Sylla, S.I., Veen, J. & Visser, D.

http://ec.europa.eu/environment/nature/nature_conservation/focus_wild_birds/avian_influenza/index_en.htm



Figure 1: Black Tern *Chlidonias niger*. Peak counts between 1990 and 2005 at sites in Europe, Africa, West and Central Asia where 100 or more have been recorded.

Table 1: Black Tern *Chlidonias niger*: Peak counts between 1990 and 2005 at sites in Europe, Africa, West and Central Asia where 10 or more have been recorded.

Country	Sitename	Year	Count	Type	Ref.
Azerbaijan	Sangachal Cape	1997	24	J	17
Benin	Lac Nokoué	1998	4227	J	17
Benin	Bas Delta Du Mono	2001	1650	J	17
Benin	Lac Sele	1996	1170	J	17
Benin	Lagune De Porto Novo	1996	1010	J	17
Benin	Lac Aheme	1998	477	J	17
Benin	Complexe Aho	1996	380	J	17
Benin	So	1998	372	J	17
Benin	Lagune Cotière	1996	250	J	17
Benin	Cotonou	1996	242	J	17
Benin	Fleuve Oueme	2004	70	J	17
Benin	Sea And Beach Near Togbin Daho	1996	50	J	17
Benin	Oueme - So: Nw Depression Valley	1996	30	J	17
Benin	Mono District	1996	15	J	17
Cameroun	Rio Del Rey	1994	200	J	17
Gabon	Gabon Sud	1992	1694	J	17
Gabon	Baie De Corisco	1992	1082	J	17
Gabon	Baie Du Cap Lopez	1992	195	J	17
Gabon	Estuaire Du Gabon	1992	108	J	17
Gabon	Baie De Mondah - Pointe Moka	1998	50	J	17
Gambia	Tanbi Wetland Complex: Bund Road Estuary & Ponds	1993	29	J	17
Gambia	Bao Bolong Wetlands Réserve	2004	20	J	17
Ghana	Densu Delta Ramsar Site	1997	2440	J	17
Ghana	Keta Lagoon Complex Ramasar Site	2002	2422	J	17
Ghana	Songhor Lagoon	1997	1700	J	17
Ghana	Muni Lagoon	1998	1350	J	17
Ghana	Sakumo Lagoon	2001	586	J	17
Ghana	Korle Lagoon	1999	209	J	17
Ghana	Esiama Beach	2002	50	J	17
Guinee	Rio Kompony Ouest	2000	31	J	17
Guinee	Iles Tristao Ouest	2000	30	J	17
Guinee	Rio Kompony Est	2000	30	J	17
Guinee	Khonibombe	2003	13	J	17
Iran	Hamoun Lakes Complex: Hamoun-E-Saberi	1993	707	J	17
Iran	Hamoun Lakes Complex: Kuh-I-Khajeh	1993	607	J	17
Iran	Govater Bay & Hur-E-Bahu: Bahookalat River	1993	240	J	17
Iran	Shaheed Parsa Dam: 2	2003	121	J	17
Iran	Oman Sea Coast (Western Part): Pozm Khoor & Bay	2003	29	J	17
Iran	Hoor Al-Azim Marshes	1997	25	J	17
Iran	Caspian Coast (Gilan): Hashtpar – Anzali	1997	21	J	17
Mauritanie	Mahmouda	2004	11	J	17
Morocco	Embouchure De L'Oued Moulouya: Nador	1992	200	J	17
Morocco	Sebkha Bou Areg = Mar Chica: Nador	1994	25	J	17
Morocco	Dayet Al Hafs (Jorf Lasfar)	1992	20	J	17
Namibia	Walvis Bay Ramsar Site	2004	61015	J	17
Namibia	Sandwich Harbour: Southern Wetlands	1998	24500	J	17
Namibia	Sandwich Bay, Namib-Naukluft Park	2004	15000	J	17
Namibia	Mile 4 (Swakopmund) Saltworks	1997	1200	J	17

Table 1 continued: Black Tern *Chlidonias niger*:

Country	Sitename	Year	Count	Type	Ref.
Namibia	Swakop River Mouth	1992	52	J	17
Niger	Karandi	1994	15	J	17
Nigeria	Hadejia-Nguru, All Quadrats	1999	3198	J	17
Russia	Wetlands of Upper Volga, Tver region		1540	B	30
Russia	Kuban Delta		1340	B	11
Russia	Neman River delta		1000	B	35
Russia	Lake Lacha		300	B	24
Russia	Neman River delta		15000	S	35
Russia	Kyzlyar Bay		5000	S	7
Senegal	Ile De Ngor	1999	400	J	17
Senegal	Ile Et Plage De Yoff (Ile Jusqu'A La Cite Djily Mbaye)	1999	260	J	17
Senegal	Parc National Des Oiseaux De Djoudj	1996	72	J	17
Senegal	Niaye De Pikine (Technopole)	1999	55	J	17
Senegal	Lagunes De St.Louis (Total)	2002	20	J	17
South Africa	Vaal Dam (East)	2004	45	J	17
South Africa	De Hoop Vlei	2002	24	J	17
Spain	Del Palacio A La Algaida (H)	2001	23	J	17
Tchad	Bahi (Bongor) Lifi	2001	25	J	17
The Gambia	Tanji Bird Reserve (Bijol Island)	2001	144	J	17
The Gambia	Baobolong Wetland Reserve (Illiassa To Conteh Dunoa)	2001	13	J	17
Togo	Lente	2001	48	J	17
Togo	Nangbeto Aval	2004	48	J	17
Togo	Koumongou	2004	31	J	17
Togo	Nangbeto Amont	2004	31	J	17
Togo	Ognabe	2004	16	J	17
Togo	Tambigou	2001	16	J	17
Togo	Domaine Gravioux	2004	12	J	17
Togo	Pont Koumouganouk	2001	12	J	17

Footnote

The “type” column indicates the type of count by codes, as follows: J: January count; M: Count of moulting concentration; S: count at a staging area on migration; B: Count at breeding site.

References consulted in drawing up Table 1 (above). Number in tables indicates which reference was used.

No.	Reference
1	Andreev V.A. 2003. Stopovers of Anseriformes during spring migration in North Dvina delta. In: Management and conservation of waterfowl populations in Northern Eurasia (with special focus on the White Sea-Baltic Flyway). Petrozavodsk, Russia. Pp. 6-8.
2	Artyukhov A.I. 2003. Migration and status of geese in Bryansk region during last 25 years. Management and conservation of waterfowl populations in Northern Eurasia (with special focus on the White Sea-Baltic Flyway). Petrozavodsk, Russia. Pp. 8-9.
3	Avdanin V.O., P.M. Glazov, V.A. Grabovsky & M.G. Sinitsyn. 2005. Principal places of goose concentration during spring migration in Kostroma Region. In: Waterfowl of Northern Eurasia. Third International Symposium Abstracts. Saint-Petersburg. Pp. 7-8.
4	Bragina, T.M. and E.A. Bragin (Eds). 2002. <i>The most important wetlands of North Kazakhstan (Kostanai Oblast and west part of North-Kazakhstan Oblast)</i> . Moscow: Russkiy Universitet Publishers. 156 pp. (In Russian).
5	Buzun V.A. 2005. Short review of waterbird migration and breeding in east part of Finland Bay and on Ladoga Lake. Waterfowl of Northern Eurasia. Pp. 50-53.
6	Djamirzoyev G., G. Magomedov, Yu. Pishvanov & L. Prilutskaya. 2004. <i>Birds of Dagestansky Nature Reserve</i> . Makhachkala. 95 pp. (In Russian)

7	Fokin, S., Kuzyakin, V., Kalchreuter, and Kirby, J.S. 2000. <i>The Garganey in the former USSR. A compilation of life-history information.</i> Wetlands Internationalglobal Series 7, Wageningen, The Netherlands.
8	Frolov V.V., S.A. Korkina, D.V. Gomzin & A.V. Frolov. 2003. Nesting Anseriformes of the Penza Oblast. Casarca N 9. Moscow, pp. 344-361.
9	Gineev A.M., V.P. Belik & B.A. Kazakov. 2002. Russia. Directory of Azov-Black Sea Coastal Wetlands. Kyiv. Wetlands International. 229 p.
10	Gineev, Krivenko 1998 (Wetlands in Russia 1).
11	Gistsov A.P. 2004. Waterbird monitoring in North Caspian Sea in 2003. Kazakhstan Ornithological Newsletter. Almaty, Kazakhstan. Pp. 19-20.
12	Golovnyuk, V.V. 2005. Distribution and numbers of geese in mouth of Upper Taimyr River, Taymyr. Waterfowl of Northern Eurasia. Pp. 86-87.
13	Gordienko N.S. 2001. Current status of swans and geese in the Southern Zauralie (the Chelabinsk region). In: Problems of waterbird study and conservation in Eastern Europe and Northern Eurasia. Moscow, Russia.
14	Gurtovaya E., P. Tolvanen, T. Eskelin, I. Olsen, T. Bragina, T. Aravak, G. Eichhorn, A. Arkoma & S. Timonen. 1999. Preliminary results of the Lesser White-fronted Goose monitoring in Kazakhstan in October 1999. Casarca, N 5, Moscow, Russia. Pp. 145-154.
15	IWC database
16	IWC 2005 data
17	Kazakov, B.A., N.H. Lomadze, V.P. Belik et al. 2004. <i>Birds of the Northern Caucasus.</i> Volume 1: Gaviiformes, Podicipediformes, Procellariiformes, Ciconiiformes, Phoenicopteriformes, Anseriformes. Rostov-on-Don. 398 p. (In Russian).
18	Kellomaki E., T. Khohlova, A. Lehtinen, N. Ripatti, P. Rusanen & P. Uronen. 2003. Stop-over sites of migrating geese in Kargopol district, Arkhangelsk region, NW-Russia. In: Management and conservation of waterfowl populations in Northern Eurasia (with special focus on the White Sea-Baltic Flyway). Petrozavodsk, Russia. Pp. 194-195.
19	Kondratyev A.V. & V.A. Buzun. 2003. Autumn migration of geese and other waterfowl on Il'men' Lake in 2002. In: Management and conservation of waterfowl populations in Northern Eurasia (with special focus on the White Sea-Baltic Flyway). Petrozavodsk, Russia. Pp. 77-78.
20	Krivenko V.G. & V.G. Vinogradov. 2001. Current status of waterfowl resources in Russia and issues of its conservation. On: http://www.biodat.ru/chm/vbu/index.htm .
21	Krivenko V.G. (Ed.). 1999. Wetlands in Russia. Volume 1: Wetlands of International Importance. Wetlands International - AEME Publ. 52, 194 pp.
22	Krivenko V.G. (Ed.). 2000. Wetlands in Russia. Volume 3: Wetlands on the Ramsar Shadow List. Wetlands International Global Series No 6, 409 pp.
23	Kuchin A.P. 1998. Distribution and breeding of the Greylag Goose in the Altay Steppe and forest plains. In: Casarca, N 4. Pp. 143-149.
24	Kuznetsov, E.A., N.V. Anzigitova. 2002. Nesting numbers and summer distribution of the Mute Swan in the former USSR: A Review. In: Casarca, N 8. Pp. 199-232.
25	Kuznetsov, Anzigitova, Krivenko, Moshonkin, Kamennova, 1998 (Wetlands in Russia, 1).
26	Mishchenko A.L., O.V. Sukhanova, S.P. Kharitonov, V.A. Zubakin & S.V. Volkov. 2002. Current status of rare, vulnerable and game birds in the Vinogradovo floodplains, Moscow Region. In: Inventory, monitoring and conservation of Important Bird Areas of Russia. Issue 4. Moscow, Russia. Pp. 87-107.
27	Moskvitin S.S., I.G. Korobitsyn, O.Yu. Tyutenkova & A.S. Panin. 2004. Wader migration in the taiga zone of south-eastern West Siberia. In: Waders of the Eastern Europe and Northern Asia: Studies and Conservation. Pp. 151-157.
28	Nikolayev V.I. 1998. Birds of swamp landscapes of the National Park "Zavidovo" and Upper Volga. Tver'. Russia. 215 p.
29	Rusanov G.M., N.N. Gavrilov, A.K. Gorbunov et al. 2003. Structural changes in ecosystems of Astrakhan biosphere reserve caused by raising of the Caspian Sea level. Astrakhan. (In Russian).
30	Sazonov S.V. 2003. Spring stop-over sites of geese on Shuya farmlands in vicinity of Petrozavodsk. In: Management and conservation of waterfowl populations in Northern Eurasia (with special focus on the White Sea-Baltic Flyway). Petrozavodsk, Russia. Pp. 134-135.
31	Soloviev S.A. 2000. Potential IBAs of Omsk region. Inventory, monitoring and conservation of Important Bird Areas of Russia. Moscow, Russia. Pp. 133-135.
32	Sultanov E. (Ed.). 2000. <i>Potential Ramsar Sites of Azerbaijan.</i> Baku, Wetlands International-AEME Publ. 152 p. (in Azerbaijan and Russian languages).
33	Svazas S., A. Kozulin, G. Grishanov et al. 2003. Important Transboundary Belarusian-Lithuanian and Lithuanian-Russian Wetlands. Institute of Ecology of Vilnius University & "OMPO Vilnius" Publishers. Vilnius. 96 pp.

34	Sviridova T.V. & V.A. Zubakin. 2004. The influences of agricultural methods to the breeding waders (Moscow region). In: <i>Waders of the Eastern Europe and Northern Asia: Studies and Conservation</i> . Pp. 173-180.
35	Vinokurov, A.A. 2001. Red-breasted Goose. In: <i>Red Data Book of Russian Federation</i> . Moscow. Pp. 397-399.
36	Yakushev N.N & E.V. Zavialov. 2005. Dynamics of distribution and status of swans in north part of Lower Volga Valley. <i>Waterfowl of Northern Eurasia</i> . Pp. 292-293.
37	Yerokhov S.N. & N.N. Berezovikov. 2004. Ornithological observations in Kustanay region in autumn 2003. <i>Kazakhstan Ornithological Newsletter</i> . Almaty, Kazakhstan. Pp. 46-49.
38	Yerokhov S.N. 2003. Greylag Goose in Kazakhstan: distribution, numbers, and the main stages of the annual cycle. <i>Casarca N 9</i> . Moscow. Pp. 103-135.
39	Zimin V.B., N.V. Lapshin & A.V. Artemiev. 2001. Species composition and numbers of geese at the Olonets spring stopovers. In: <i>Problems of waterbird study and conservation in Eastern Europe and Northern Eurasia</i> . Moscow, Russia. Pp. 49-51.