

International census and population trends for Bewick’s Swans
Cygnus columbianus bewickii wintering from the East Mediterranean
to Central Asia

Table S1. Sites where Bewick’s Swans were recorded in the wintering range of the Northwestern Siberia/Caspian population during the 2020 international swan census.

COUNTRY	Site name	Lat. (°N)	Long. (°E)	No. counted
AZERBAIJAN	Aggel’ Lake, Aghjabadi District	40.01	47.65	255
	Absheron Peninsula, Absheron Rayon	40.24	50.36	14
	Durankulak complex, Black Sea coast	43.66	28.54	4
BULGARIA	Mandra complex, Black Sea coast	42.41	27.37	88
	Vaya complex, Black Sea coast	42.49	27.39	61
	Svishov – Russe, Danube	43.66	25.65	4
GREECE	Evros Delta	40.82	26.04	3,320
	Lake Ismaris (Mitrikou)	40.99	25.32	7
	Dimitra Reservoir (Karla reservoirs)	39.54	22.76	5
	West Aliakmon delta	40.50	22.62	30
	Lower Reservoir (Lakes Agia Varvara)	40.50	22.29	6
IRAN	Lake Kerkini	41.22	23.18	311
	Fereydoon-Kenar: Ezbaran Damgah	36.39	52.29	55
	Dasht-e Moghan Reservoir	39.60	47.98	13
ITALY	Fiume Isonzo, Friuli-Venezia Giulia region	45.83	13.43	2
KAZAKHSTAN	Chardara reservoir, Turkistan region	41.20	68.19	14

Table S1 (continued).

COUNTRY	Site name	Lat. (°N)	Long. (°E)	No. counted
MOLDOVA (Republic of) ROMANIA	Holoşniţa, North Nistru, Soroca district	48.25	28.19	1
	Techirghiol Lake, northern Dobruja	44.03	28.61	10
	Râul Siret: sub Barajul Bereşti	46.17	27.18	2
	Olt River, Strejesti Lake	44.60	24.32	7
	Dunărea, Vrancea County	44.44	28.12	1
RUSSIA (SW Black Sea)	Bistret Lake	43.88	23.57	19
	Acumularea Vaduri	46.94	26.25	2
	Acumularea Gârleni, Bacau County	46.68	26.79	3
	Akhtanizovskiy Liman, Krasnodar Province	45.28	37.20	138
	Varnavinskoye Reservoir, Krasnodar Province	45.00	38.62	334
RUSSIA (Volga Delta)	Volga Delta, Astrakhan Oblast	45.70	48.37	224
SERBIA	Danube 60 (845 – 850 rkm), east Serbia	44.23	22.68	15
	Danube 182 (Veliki rit), Banat	44.78	21.19	8
TURKEY	Sarıyar Barajı, Ankara	40.03	31.61	32
	Meriç Deltası	40.77	26.21	1,302
	Kızılırmak Deltası, Samsun	41.67	36.04	8
	Gediz Deltası, İzmir	38.57	26.87	27
	Büyükdçekmece Gölü, İstanbul	41.07	28.55	5
TURKMENISTAN	Duldulata Cape – Garabogazgol Strait, Balkan Velayat	41.06	52.91	4
	Garadashly – Gamyshlyjar coast, Balkan Velayat	38.36	53.87	53
	Danube Delta, Odes’Ka	29.72	45.38	2
UKRAINE	Dzarylgachski Bay, Azov – Black Sea region	32.97	46.07	52
	Karkinititski Bay (N part), Khersons’Ka	33.38	46.09	3
	Shagany Liman, Azov – Black Sea region	29.87	45.72	16
UZBEKISTAN	Tuzkan Lake, Dzhizak Oblast	40.61	67.50	55

Table S2. Bewick's Swans counted and reported to the International Waterbird Census (IWC) 2000–2022, including additional counts made during the International Bewick's Swan Census (IBSC; bold font) in 2020. Zeros = no swans recorded at IWC sites during the IWC; blanks = probably few/no Bewick's Swans but this was not confirmed.

Country	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	No. years	Peak count of peak years	
ALBANIA						6															4		2	6	2005	
ARMENIA				35	76	25		3					17										21	7	76	2004
AZERBAIJAN				44	65	583	4						110	3	5									8	583	2005
BULGARIA		6		2			1		11	9		7	29	2	89				40	96	157	170	266	14	266	2022
CROATIA						3												1		0				3	3	2005
CYPRUS		11																						1	11	2002
GEORGIA															2									2	2	2014
GREECE					6		473	13	53	381	151	222	111	1,330	368	2,185	2,967	899	4,205	4,145	3,679	512	1,345	18	4,205	2018
HUNGARY											2								21		1			3	21	2018
ISRAEL						2																		1	2	2005
IRAQ									20		3													2	20	2008
IRAN	50	1		63	23	11		7	14	4		14	79	4	41	35	8	33	4	160	68	25	354	20	354	2022
ITALY	0	0	0	0	0	1	1	0	0	0	0	6	0	0	1	2	0	3	5	15	2	2	9	23	15	2019
JORDAN						1																		1	1	2005
KAZAKHSTAN											39	8					59			123	14			5	123	2019
KYRGYZSTAN																				2	0			3	2	2019
MOLDOVA																			28	3	1		115	4	115	2022
ROMANIA								17	33	69	32	55	91	83	35	23	97	63	273	128	44	514	800	16	800	2022
RUSSIA														139	91	2	39	79	608	1,003	169	92	9	1,003	2020	
(INCLUDING N. CASPIAN 2020)																										
SERBIA	0	0	0	0	0	0	0	1	0	0	0	0	0	0	21	0	21	71	12	49	23	36	28	23	71	2017
SLOVENIA														2										1	2	2013
TURKEY	51					129	138	316	217	136	10	465	562	200	549	933	1,358	9,934	2,551	8,712	1,374	2,300	9,705	19	9,934	2017
TURKMENESTAN																				322	57	27	553	4	553	1996
UAE																								0	0	1997
UKRAINE												1	5			7			43	19	73	67	47	8	73	1998
UZBEKISTAN																			9		55	12	3	55	2020	
TOTAL SWANS COUNTED	50	7	62	144	171	761	617	358	348	599	237	777	999	1,764	1,207	3,180	4,556	11,083	7,799	13,775	6,819	3,855	13,309			

Note: January 2017 was exceptionally cold and snowy, in comparison 1981–2010 average, with the particularly in southeast Europe (Copernicus Climate Change Service C3S; <https://climate.copernicus.eu/average-surface-air-temperatures-january-2017>).