

## **Analysis of aerial survey indices monitoring waterbird populations of the Arctic Coastal Plain, Alaska, 1986-2013.**

R.A. Stehn, USFWS, Migratory Bird Management, Anchorage and Soldotna

1 May 2014

This report adds the observations made in 2013 to the analysis combining all available data from the original Arctic Coastal Plain (ACP) survey (1986-2006), the North Slope Eider (NSE) survey (1992-2006), and the redesigned ACP survey (2007-2012). Flight procedures and data recording on these low-level aerial transect surveys follow the protocol of the North American Waterfowl Breeding Population and Habitat Survey (USFWS and CWS 1987, Smith 1995). The earlier ACP and NSE results have been summarized annually in various unpublished reports (Brackney and King 1993, Mallek et al. 2006, Larned et al. 2012). The redesigned ACP survey, initiated in 2007 included adjustments made in timing, stratification, sampling allocation, and area, and it has proven satisfactory and useful.

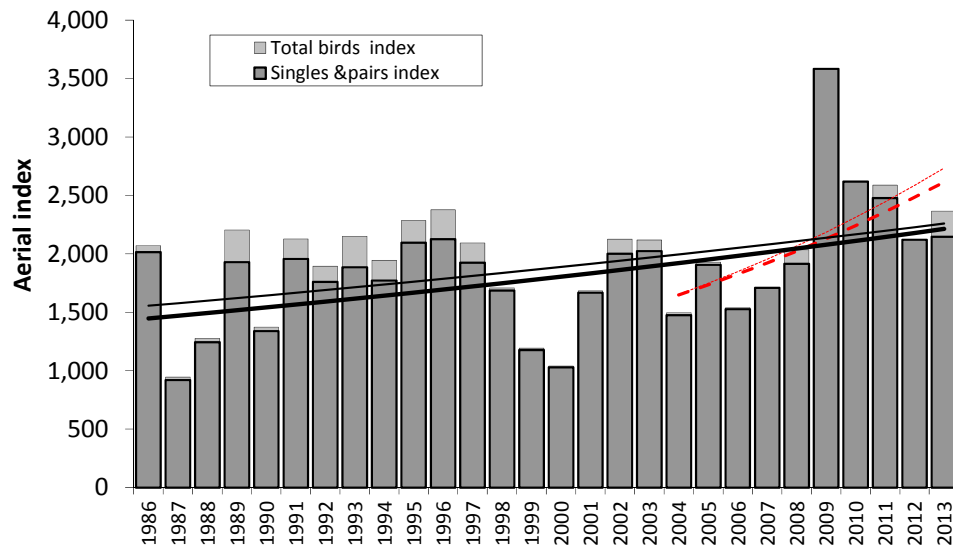
A report detailing methods used in the re-analysis of the combined data was presented in 2013 (*Stehn, R.A., W.W. Larned, and R.M. Platte. 2013. Analysis of aerial survey indices monitoring waterbird populations of the Arctic Coastal Plain, Alaska, 1986-2012. Unpubl. report USFWS, MBM, Anchorage & Soldotna. 56pp.*). These same methods were used here and a description is not repeated. However, a few key aspects important in interpretation of the data and graphs presented are repeated.

- The population indices in the four strata and their variances were summed to calculate the total population index for each year.
- For most waterfowl species except scaup, snow geese, and swans, observations of single birds (usually the more noticeable drake thought to indicate a less visible female), were doubled when added to the breeding bird or total bird indices. Single hens are not recorded. Singles observed were not doubled for gulls, terns, loons, shorebirds, owls, and ravens.
- For all species, the left-front and right-front data were pooled to calculate the aerial index densities. An exception was for unidentified shorebird species (UNSB, all large-, medium- and small-size shorebirds) where only observations from the left-front observer were used. Right-front observers were relatively less experienced and, in a few years, they did not record shorebird observations.
- In years when piloting was shared between two pilots, all observations of WWL or RJK were classified as left front, the so-called majority seat, even though roughly half of their observations were actually from the right-front seat position.
- The ratios used in adjustment of the historic data were pooled estimates rather than exact year- and area-specific correction factors. As such, each estimated ratio included sampling error. Adjusted indices for each species are calculated separately for singles, pairs, flocks, breeding birds, and total birds, and for some species, the small number of observations required additional pooling of these categories. One result of these group-specific adjustments and the

estimation procedure was that the columns for singles, 2\*pairs, and birds in small, medium or large flocks (as shown in the tables) usually does not add to equal the breeding bird or total bird indices in the adjusted 1986-2006 data. Component columns are appropriately additive in the 2007-2013 data.

- Population index trends for each of the 34 species (pages 3 to 36) over long-term (1986-2013, 28 years) and short-term (2004-2013, 10-year) periods were calculated by log-linear regression on the index values. Inclusion of covariates or other considerations of variance structure were not used in these descriptive analyses. A tabulated summary of the graphical results are presented in tables on the last pages (Table 1, 2, pages 37 and 38).

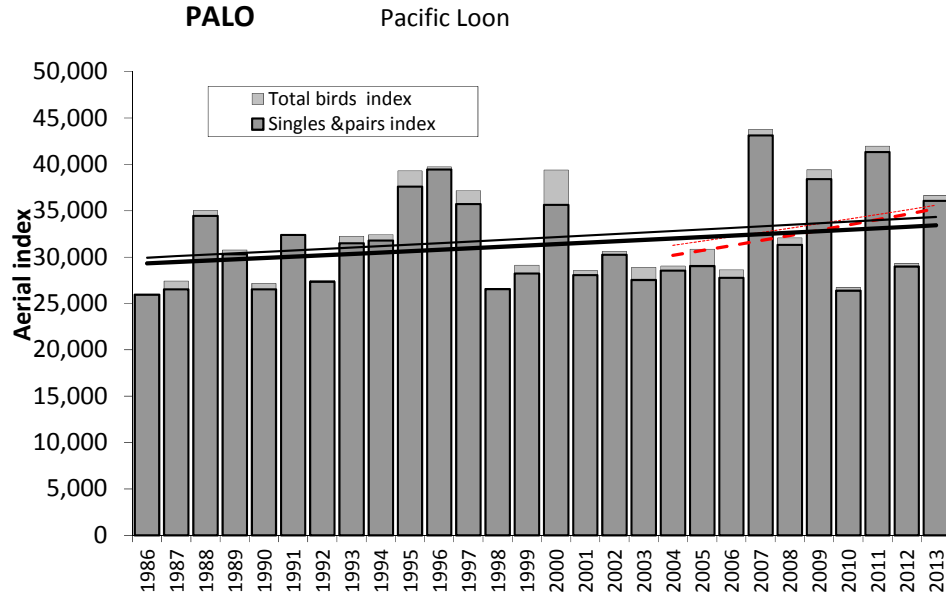
**YBLO** Yellow-billed Loon



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3-5 index	birds in groups 6-30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	696	1602	0	0	0	2015	364	2070	375
1987	427	402	0	0	0	921	214	946	221
1988	503	767	0	0	0	1243	269	1277	277
1989	784	1179	344	0	0	1929	387	2204	444
1990	564	756	0	0	0	1338	276	1375	285
1991	741	1359	181	0	0	1957	348	2127	411
1992	741	994	134	0	0	1759	355	1894	374
1993	727	1151	239	0	0	1886	290	2151	332
1994	833	979	143	0	0	1772	408	1944	430
1995	827	1440	216	0	0	2096	352	2285	387
1996	1216	924	335	0	0	2127	279	2378	365
1997	613	1271	0	147	0	1925	444	2093	573
1998	808	877	0	0	0	1687	341	1709	348
1999	454	871	0	0	0	1176	370	1192	378
2000	457	502	0	0	0	1030	206	1040	208
2001	491	1181	0	0	0	1667	237	1684	239
2002	1009	951	99	0	0	2002	300	2126	315
2003	749	1468	73	0	0	2023	267	2120	266
2004	505	1104	0	0	0	1476	250	1496	254
2005	632	1309	0	0	0	1907	359	1929	365
2006	473	1136	0	0	0	1526	359	1541	363
2007	1155	553	0	0	0	1709	255	1709	255
2008	844	1072	121	0	0	1915	320	2037	353
2009	1357	2227	0	0	0	3584	548	3584	548
2010	616	2002	0	0	0	2618	487	2618	487
2011	936	1542	109	0	0	2478	440	2588	439
2012	1173	949	0	0	0	2122	353	2122	353
2013	914	1232	222	0	0	2146	331	2367	422

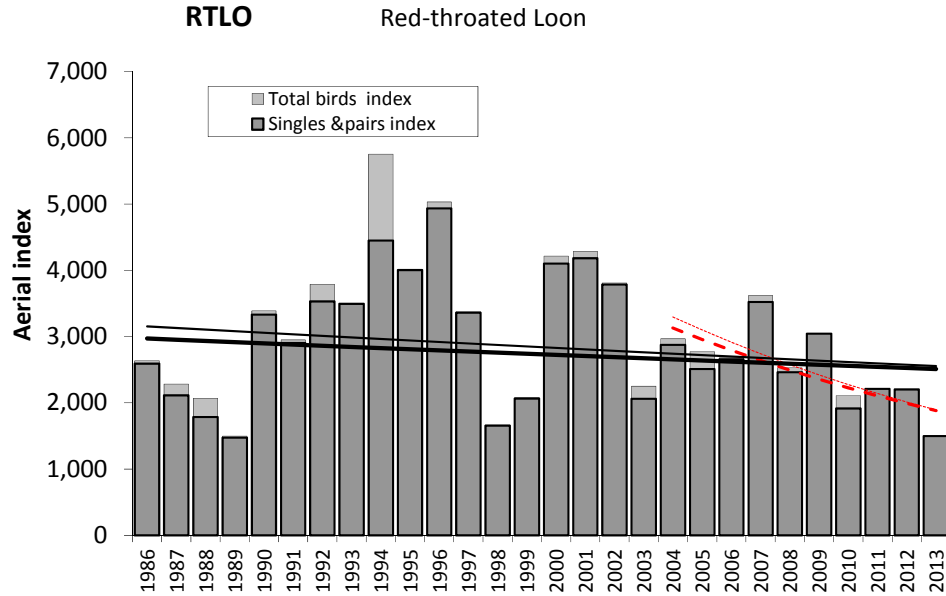
	1986-2013	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	1,858	99	(1,696-2,021)	1.016	(1.006-1.026)	
total birds	28	1,950	103	(1,781-2,120)	1.014	(1.003-1.025)	
<b>2004-2013</b>							
breeding birds	10	2,148	198	(1,822-2,474)	1.053	(1.009-1.098)	
total birds	10	2,199	199	(1,873-2,526)	1.058	(1.016-1.101)	



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

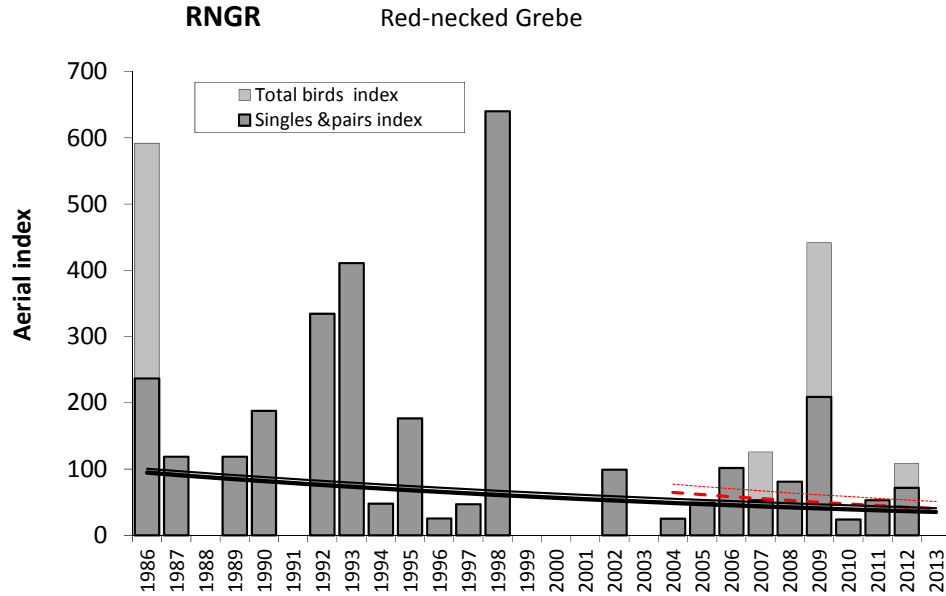
Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	5936	20334	221	0	0	25924	1837	25948	1835
1987	6653	18613	830	0	0	26502	1982	27409	2077
1988	8223	25749	418	513	0	34433	2498	35013	2584
1989	5957	27440	549	0	0	30316	2045	30770	2123
1990	6784	18167	419	440	0	26526	2009	27145	2280
1991	8089	22918	202	0	0	32396	2137	32320	2137
1992	7171	18056	329	0	0	27339	2035	27506	2100
1993	7613	24536	718	0	0	31483	1395	32242	1435
1994	7237	25043	473	261	0	31780	2097	32417	2163
1995	7789	32326	1031	583	0	37610	2124	39302	2088
1996	9898	28082	341	0	0	39452	2054	39751	2114
1997	8127	27847	837	992	0	35731	2380	37167	2517
1998	6223	20581	156	0	0	26549	2668	26541	2652
1999	6572	20549	881	0	0	28220	1920	29134	1971
2000	9111	25373	2596	795	0	35642	2980	39378	3403
2001	5740	22666	597	0	0	28052	1753	28529	1766
2002	6619	25065	415	0	0	30251	1616	30591	1605
2003	7094	18587	1162	196	0	27539	1999	28901	2074
2004	6813	22710	442	149	0	28527	2344	29036	2332
2005	6776	21862	1769	0	0	29025	1759	30845	2014
2006	5478	24167	662	152	0	27769	2364	28638	2496
2007	9856	33262	509	146	0	43118	3597	43773	3599
2008	8185	23146	598	141	0	31330	2098	32070	2225
2009	7637	30778	991	0	0	38415	3100	39405	3252
2010	6621	19744	340	0	0	26365	1769	26704	1875
2011	8602	32732	624	0	0	41335	4002	41958	4000
2012	6272	22714	330	0	0	28985	1994	29316	1971
2013	6885	29176	575	0	0	36061	2775	36635	2844

	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
1986-2013						
breeding birds	28	31,667	942	(30,118-33,216)	1.005	(0.999-1.011)
total birds	28	32,444	985	(30,824-34,065)	1.005	(0.999-1.011)
2004-2013						
breeding birds	10	33,093	1,934	(29,912-36,274)	1.017	(0.984-1.051)
total birds	10	33,838	1,935	(30,655-37,021)	1.014	(0.982-1.048)



Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	683	1491	0	0	0	2592	461	2636	471
1987	541	1295	68	0	0	2113	392	2282	415
1988	477	989	129	0	0	1783	432	2067	485
1989	325	1159	0	0	0	1472	305	1497	311
1990	844	2086	0	0	0	3333	521	3389	532
1991	716	1915	0	0	0	2903	519	2952	530
1992	659	3372	101	0	0	3531	436	3789	473
1993	575	2641	0	0	0	3495	437	3503	438
1994	1067	3541	145	1067	0	4448	509	5752	1001
1995	1025	2656	0	0	0	4002	492	4014	494
1996	945	3898	73	0	0	4935	552	5032	567
1997	841	2426	0	0	0	3362	562	3374	567
1998	421	1421	0	0	0	1655	302	1665	305
1999	426	1444	0	0	0	2063	369	2075	373
2000	941	3225	78	0	0	4103	572	4213	582
2001	918	3886	73	0	0	4181	553	4288	569
2002	884	2944	0	0	0	3787	481	3808	486
2003	507	1218	179	0	0	2060	247	2248	250
2004	603	2064	65	0	0	2876	401	2965	418
2005	539	2066	98	148	0	2509	360	2774	431
2006	641	2208	0	0	0	2655	455	2680	462
2007	1166	2356	97	0	0	3522	486	3619	490
2008	646	1813	71	0	0	2459	380	2530	374
2009	686	2360	0	0	0	3046	546	3046	546
2010	519	1394	119	74	0	1913	269	2107	299
2011	567	1643	0	0	0	2209	354	2209	354
2012	593	1607	0	0	0	2200	353	2200	353
2013	545	951	0	0	0	1497	271	1497	271

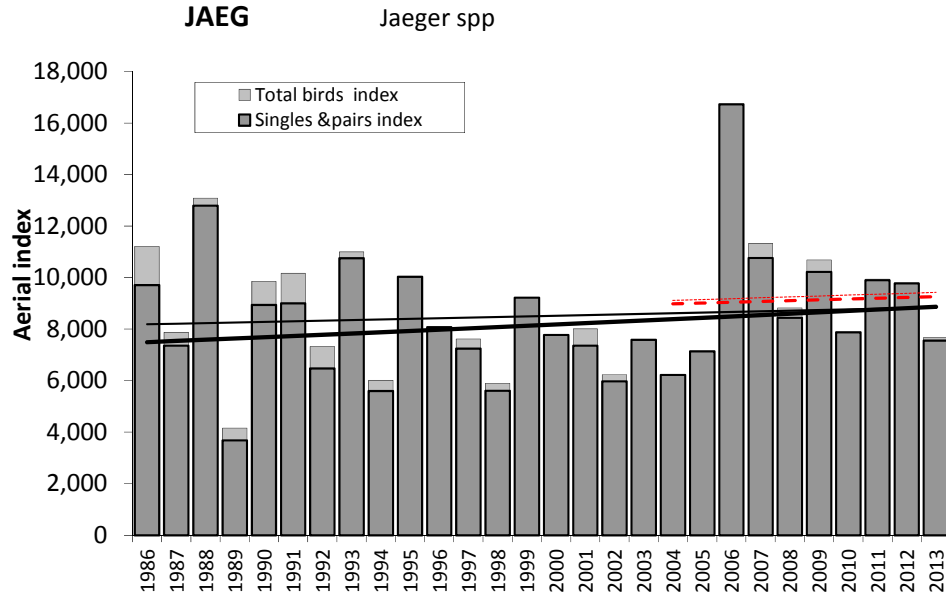
	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	<b>2,882</b>	180	(2,586-3,178)	<b>0.994</b>	(0.981-1.007)
total birds	28	<b>3,007</b>	198	(2,681-3,334)	<b>0.992</b>	(0.979-1.006)
<b>2004-2013</b>						
breeding birds	10	<b>2,489</b>	184	(2,187-2,791)	<b>0.945</b>	(0.914-0.977)
total birds	10	<b>2,563</b>	188	(2,254-2,871)	<b>0.940</b>	(0.912-0.970)



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	0	187	355	0	0	237	297	592	626
1987	93	0	0	0	0	118	161	118	161
1988	0	0	0	0	0	0	0	0	0
1989	93	0	0	0	0	118	161	118	161
1990	0	148	0	0	0	188	253	188	253
1991	0	0	0	0	0	0	0	0	0
1992	264	0	0	0	0	334	219	334	219
1993	324	0	0	0	0	411	338	411	338
1994	0	48	0	0	0	48	48	48	48
1995	107	47	0	0	0	176	122	176	122
1996	25	0	0	0	0	25	25	25	25
1997	0	47	0	0	0	47	41	47	41
1998	185	320	0	0	0	640	502	640	502
1999	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0
2002	99	0	0	0	0	99	57	99	57
2003	0	0	0	0	0	0	0	0	0
2004	25	0	0	0	0	25	24	25	24
2005	49	0	0	0	0	49	35	49	35
2006	51	51	0	0	0	102	61	102	61
2007	53	0	73	0	0	53	43	126	84
2008	0	81	0	0	0	81	72	81	72
2009	136	73	233	0	0	209	98	442	254
2010	24	0	0	0	0	24	24	24	24
2011	53	0	0	0	0	53	41	53	41
2012	72	0	37	0	0	72	38	108	51
2013	0	0	0	0	0	0	0	0	0

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	111	27	(66-156)	0.964	(0.920-1.010)
total birds	28	136	34	(81-191)	0.967	(0.919-1.017)
<b>2004-2013</b>						
breeding birds	10	67	18	(36-97)	0.949	(0.814-1.106)
total birds	10	101	40	(35-167)	0.955	(0.785-1.161)

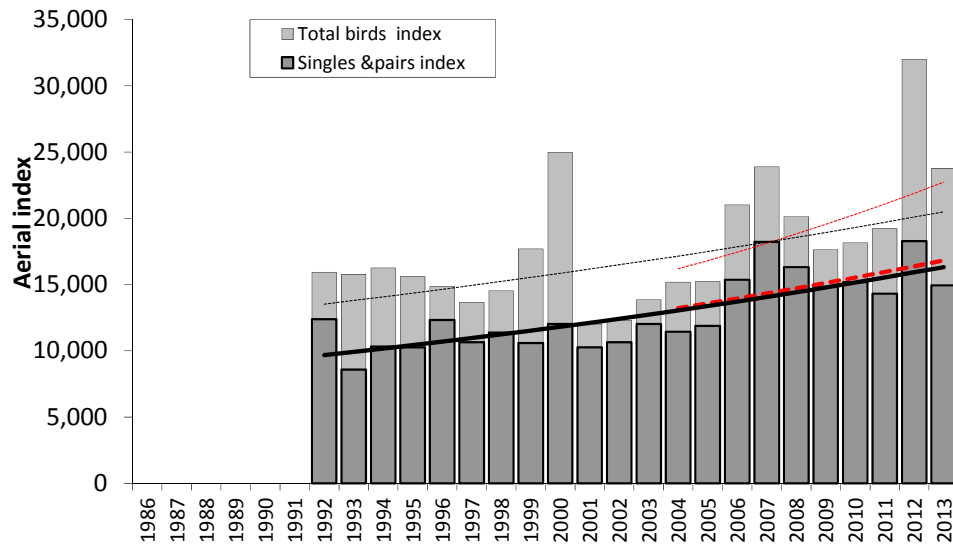


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	6199	3553	665	1207	0	<b>9716</b>	1521	<b>11211</b>	1864
1987	5208	2168	654	0	0	<b>7362</b>	1036	<b>7877</b>	1095
1988	9464	3347	557	533	0	<b>12800</b>	1708	<b>13082</b>	1819
1989	2100	1604	441	0	0	<b>3683</b>	760	<b>4166</b>	819
1990	6222	2743	369	1131	0	<b>8946</b>	1274	<b>9862</b>	1579
1991	7325	1671	759	614	0	<b>9007</b>	1170	<b>10169</b>	1522
1992	5586	868	243	1061	0	<b>6470</b>	808	<b>7328</b>	1457
1993	8147	2621	611	0	0	<b>10752</b>	1014	<b>11001</b>	1052
1994	4414	1180	441	0	0	<b>5602</b>	913	<b>6013</b>	1197
1995	8481	1538	136	0	0	<b>10032</b>	1018	<b>9745</b>	944
1996	6381	1687	249	0	0	<b>8074</b>	1211	<b>7825</b>	1078
1997	4678	2597	471	0	0	<b>7247</b>	924	<b>7617</b>	985
1998	3887	1727	407	0	0	<b>5611</b>	658	<b>5903</b>	776
1999	6580	2650	195	0	0	<b>9222</b>	1210	<b>8869</b>	1088
2000	5452	2335	151	0	0	<b>7774</b>	884	<b>7579</b>	815
2001	5816	1539	463	393	0	<b>7358</b>	883	<b>8015</b>	1005
2002	4252	1725	161	404	0	<b>5969</b>	743	<b>6238</b>	843
2003	5690	1898	159	0	0	<b>7587</b>	871	<b>7354</b>	901
2004	4340	1895	97	0	0	<b>6226</b>	965	<b>6002</b>	883
2005	5659	1481	0	0	0	<b>7139</b>	781	<b>6630</b>	689
2006	14280	2423	248	0	0	<b>16735</b>	1534	<b>16209</b>	1369
2007	8635	2128	97	463	0	<b>10763</b>	971	<b>11324</b>	1151
2008	6927	1512	390	0	0	<b>8439</b>	746	<b>8829</b>	888
2009	8119	2105	466	0	0	<b>10224</b>	1769	<b>10689</b>	1727
2010	4611	3272	0	0	0	<b>7883</b>	803	<b>7883</b>	803
2011	8349	1554	36	0	0	<b>9903</b>	882	<b>9938</b>	883
2012	7331	2439	37	0	0	<b>9771</b>	1044	<b>9807</b>	1043
2013	5044	2509	133	0	0	<b>7554</b>	587	<b>7687</b>	578

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	<b>8,495</b>	477	(7,709-9,280)	<b>1.006</b>	(0.995-1.018)
total birds	28	<b>8,745</b>	472	(7,968-9,521)	<b>1.002</b>	(0.992-1.014)
<b>2004-2013</b>						
breeding birds	10	<b>9,463</b>	934	(7,927-11,000)	<b>1.003</b>	(0.952-1.058)
total birds	10	<b>9,500</b>	924	(7,980-11,020)	<b>1.010</b>	(0.956-1.067)

## GLGU      Glaucous Gull

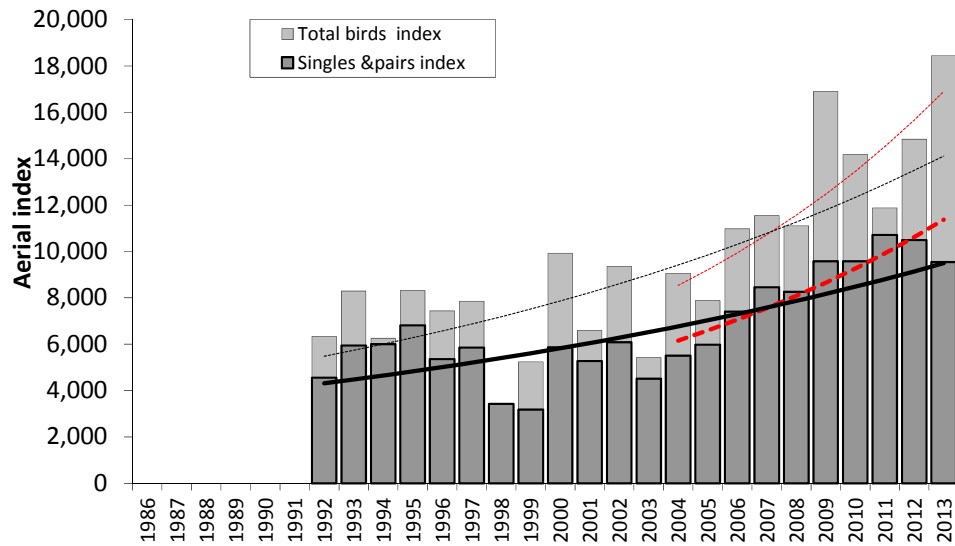


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 5 index	birds in groups 3-6 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	7710	4565	1588	1892	630	<b>12388</b>	773	<b>15933</b>	1787
1993	5348	3121	1944	5479	0	<b>8577</b>	640	<b>15770</b>	3163
1994	6495	4096	1674	3172	1072	<b>10328</b>	653	<b>16256</b>	2523
1995	6983	3029	1384	2496	1349	<b>10264</b>	745	<b>15614</b>	2588
1996	7980	4310	1291	1578	0	<b>12318</b>	919	<b>14855</b>	1493
1997	6227	4530	1587	1757	0	<b>10642</b>	1003	<b>13670</b>	1798
1998	6532	4697	1114	1300	1170	<b>11367</b>	963	<b>14531</b>	1670
1999	6290	4209	2349	4160	943	<b>10588</b>	1064	<b>17699</b>	2014
2000	7368	4542	3910	6900	2320	<b>12018</b>	854	<b>24973</b>	3409
2001	6617	3549	1028	1165	0	<b>10261</b>	704	<b>12028</b>	1253
2002	6832	3766	846	1122	0	<b>10642</b>	931	<b>12309</b>	1181
2003	7362	4802	1105	1234	0	<b>12020</b>	1159	<b>13865</b>	1795
2004	7082	4320	1259	1789	996	<b>11428</b>	797	<b>15173</b>	1406
2005	7308	4471	1459	2106	0	<b>11881</b>	886	<b>15211</b>	1633
2006	7512	8260	1445	3048	1142	<b>15361</b>	1110	<b>21004</b>	2427
2007	11801	6411	2214	3471	0	<b>18212</b>	1140	<b>23897</b>	2534
2008	10017	6292	1628	2180	0	<b>16309</b>	1471	<b>20117</b>	1876
2009	10458	4361	1326	1484	0	<b>14819</b>	1066	<b>17629</b>	1782
2010	7751	7437	780	2197	0	<b>15188</b>	1177	<b>18166</b>	1781
2011	9353	4960	1519	3400	0	<b>14313</b>	1367	<b>19232</b>	3706
2012	11334	6952	1659	2398	9659	<b>18286</b>	1396	<b>32002</b>	7240
2013	9741	5187	2911	5924	0	<b>14928</b>	995	<b>23763</b>	2891
1992-2013	nyrs	Avg	SE index	(90%ci)		Growth	(90%ci)		
breeding birds	22	<b>12,824</b>	574	(11,880-13,769)		<b>1.029</b>	(1.022-1.036)		
total birds	22	<b>17,895</b>	1,027	(16,206-19,585)		<b>1.023</b>	(1.011-1.036)		
2004-2013									
breeding birds	10	<b>15,073</b>	714	(13,897-16,248)		<b>1.027</b>	(1.002-1.053)		
total birds	10	<b>20,619</b>	1,586	(18,010-23,228)		<b>1.049</b>	(1.014-1.085)		

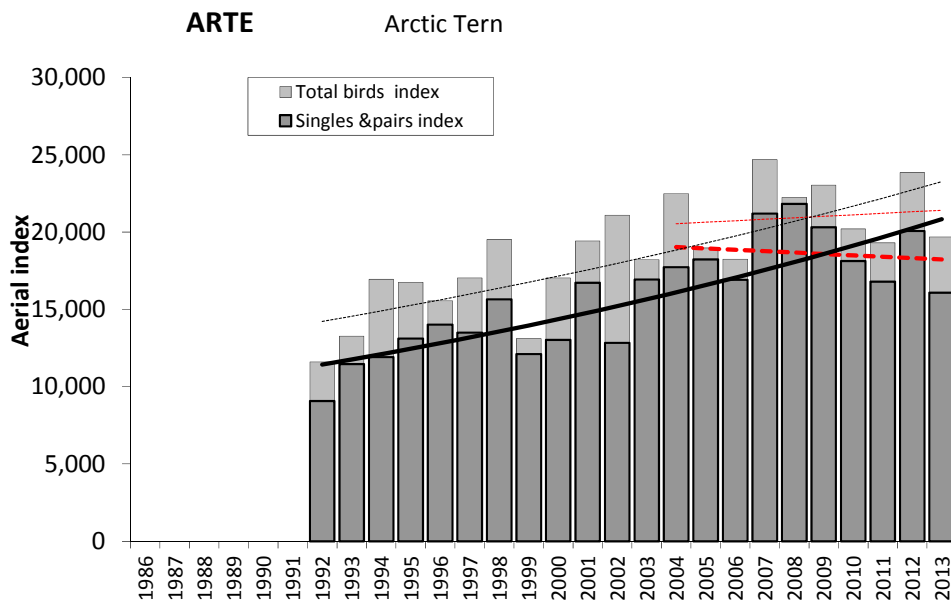


**SAGU** Sabine's Gull

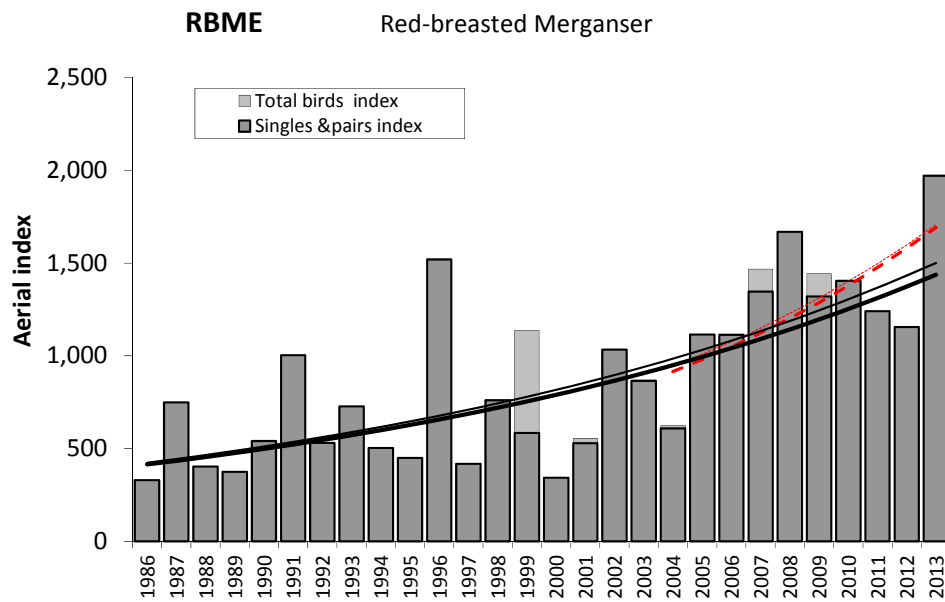


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 5 index	birds in groups 30 index	birds in groups >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	2749	1592	572	1447	0	4554	749	6335	979
1993	3229	2680	1403	888	0	5938	640	8287	1040
1994	3924	1907	652	108	0	6004	699	6257	705
1995	3559	3251	762	1222	0	6815	905	8312	1506
1996	2810	2490	645	1309	0	5357	639	7441	982
1997	2700	3132	1098	927	0	5848	558	7848	720
1998	2031	1363	253	208	0	3417	573	3460	507
1999	1364	1772	749	1724	0	3172	644	5237	1057
2000	3454	2247	2057	1856	0	5862	718	9920	1219
2001	2408	2945	1192	618	0	5274	561	6592	890
2002	2820	3230	1439	2003	0	6084	576	9354	931
2003	2747	1724	521	424	0	4511	505	5424	625
2004	2312	3197	993	2483	0	5505	697	9053	1302
2005	2928	3039	1058	1426	0	5975	775	7872	963
2006	3183	4225	462	1738	1269	7406	835	10980	1859
2007	3991	4458	411	2682	0	8449	1053	11542	1442
2008	4023	4232	901	1944	0	8255	1000	11100	1436
2009	4558	5024	553	5804	961	9582	884	16900	1983
2010	4732	4848	885	3712	0	9580	1090	14177	1661
2011	6623	4087	218	950	0	10710	1194	11878	1343
2012	4777	5714	853	2881	613	10492	1070	14839	1977
2013	4368	5171	2184	6714	0	9539	1232	18436	2649
1992-2013	nyrs	Avg	SE index	(90%ci)		Growth	(90%ci)		
breeding birds	22	<b>6,742</b>	471	(5,968-7,516)		<b>1.039</b>	(1.024-1.054)		
total birds	22	<b>9,602</b>	822	(8,249-10,955)		<b>1.050</b>	(1.032-1.068)		
2004-2013									
breeding birds	10	<b>8,549</b>	566	(7,618-9,481)		<b>1.071</b>	(1.051-1.091)		
total birds	10	<b>12,678</b>	1,062	(10,931-14,424)		<b>1.077</b>	(1.048-1.107)		



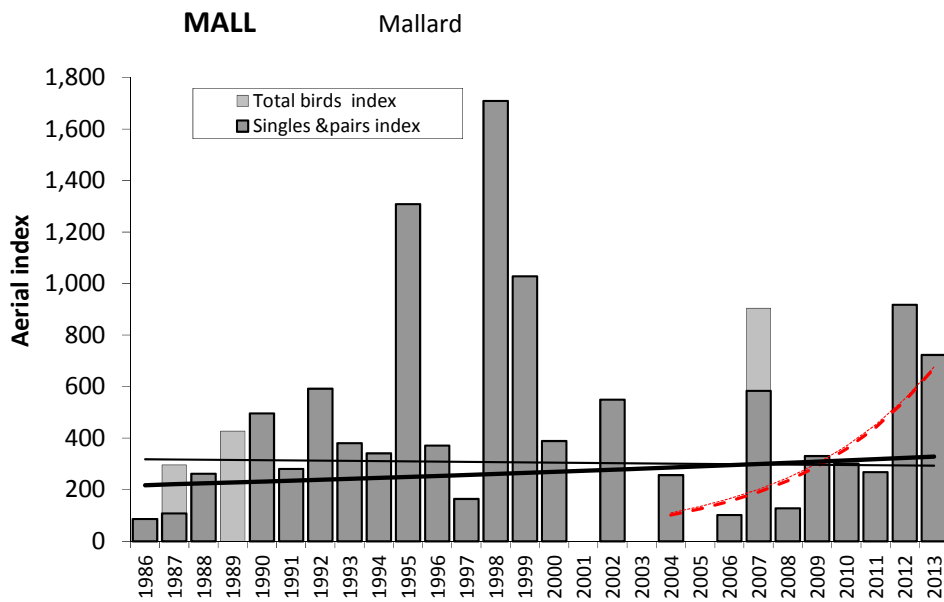
Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in >30 flocks	Singles & pairs index	SE breeding bird index	Total	
								birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	5855	2199	1680	706	0	<b>9068</b>	838	<b>11598</b>	1208
1993	5140	6330	1247	529	0	<b>11461</b>	1140	<b>13279</b>	1706
1994	6550	4962	1586	921	1220	<b>11922</b>	1256	<b>16952</b>	2783
1995	7469	5120	2664	1063	0	<b>13107</b>	958	<b>16753</b>	1942
1996	7563	6134	1520	815	0	<b>14026</b>	1095	<b>15568</b>	1453
1997	5791	7832	2276	888	0	<b>13502</b>	1571	<b>17037</b>	1466
1998	7297	8453	1385	1179	0	<b>15654</b>	1843	<b>19527</b>	2510
1999	5025	7376	809	749	0	<b>12115</b>	1539	<b>13114</b>	1620
2000	5940	7297	1810	2046	0	<b>13033</b>	1035	<b>17036</b>	1722
2001	7562	9191	2028	428	1008	<b>16733</b>	1309	<b>19426</b>	2522
2002	6964	5706	1824	4438	0	<b>12845</b>	1124	<b>21108</b>	2374
2003	9328	7246	1126	474	924	<b>16942</b>	1487	<b>18211</b>	1685
2004	9104	8504	2472	1338	996	<b>17731</b>	1395	<b>22492</b>	2805
2005	8827	9282	1898	1312	0	<b>18228</b>	1289	<b>18991</b>	1897
2006	7679	9057	984	482	825	<b>16911</b>	1879	<b>18246</b>	1878
2007	12244	8959	2450	1036	0	<b>21203</b>	2110	<b>24689</b>	2769
2008	9080	12742	421	0	0	<b>21822</b>	2740	<b>22243</b>	2841
2009	9403	10921	1256	1469	0	<b>20324</b>	2049	<b>23049</b>	2198
2010	7229	10894	1118	973	0	<b>18124</b>	2174	<b>20215</b>	2359
2011	8098	8699	1350	1168	0	<b>16796</b>	2014	<b>19315</b>	1974
2012	10366	9710	1643	2139	0	<b>20076</b>	2145	<b>23858</b>	2370
2013	7799	8278	2106	1509	0	<b>16077</b>	2275	<b>19692</b>	3097
1992-2013	nyrs		Avg	SE index	(90%ci)		Growth	(90%ci)	
breeding birds	22		<b>15,805</b>	733	(14,598-17,011)		<b>1.026</b>	(1.018-1.033)	
total birds	22		<b>18,745</b>	740	(17,529-19,962)		<b>1.020</b>	(1.013-1.027)	
2004-2013									
breeding birds	10		<b>18,729</b>	630	(17,693-19,766)		<b>0.995</b>	(0.975-1.015)	
total birds	10		<b>21,279</b>	713	(20,106-22,452)		<b>1.001</b>	(0.981-1.021)	



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles &pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	130	179	162	0	0	329	131	321	120
1987	278	561	178	0	0	749	265	606	200
1988	119	552	0	0	0	402	185	264	123
1989	152	168	0	0	0	374	155	245	103
1990	111	1155	111	0	0	540	180	426	145
1991	251	1771	0	113	0	1003	275	760	220
1992	104	1172	0	70	0	530	153	411	121
1993	271	972	0	0	0	727	197	510	142
1994	210	242	0	0	0	502	144	364	110
1995	140	638	0	0	0	449	136	326	103
1996	602	1487	0	0	0	1519	302	1266	258
1997	47	1011	0	0	0	417	145	340	118
1998	232	830	0	0	0	760	279	545	193
1999	315	202	0	659	0	584	190	1137	733
2000	49	293	0	0	0	342	138	342	138
2001	70	698	73	0	0	528	173	554	159
2002	304	984	0	155	0	1034	202	1006	266
2003	376	342	98	0	0	865	224	869	233
2004	154	563	49	0	0	608	182	624	184
2005	508	523	0	0	0	1114	277	961	246
2006	457	490	0	138	0	1113	282	1019	295
2007	348	999	121	0	0	1347	568	1468	599
2008	582	1087	0	0	0	1669	399	1669	399
2009	656	664	123	0	0	1320	339	1443	360
2010	660	743	0	0	0	1404	590	1404	590
2011	628	613	0	0	0	1240	349	1240	349
2012	488	667	0	0	0	1156	301	1156	301
2013	784	1187	0	0	0	1972	481	1972	481

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	878	85	(739-1,018)	1.047	(1.032-1.062)
total birds	28	830	92	(680-981)	1.062	(1.047-1.078)
<b>2004-2013</b>						
breeding birds	10	1,294	114	(1,106-1,482)	1.071	(1.024-1.119)
total birds	10	1,296	121	(1,096-1,495)	1.078	(1.031-1.127)

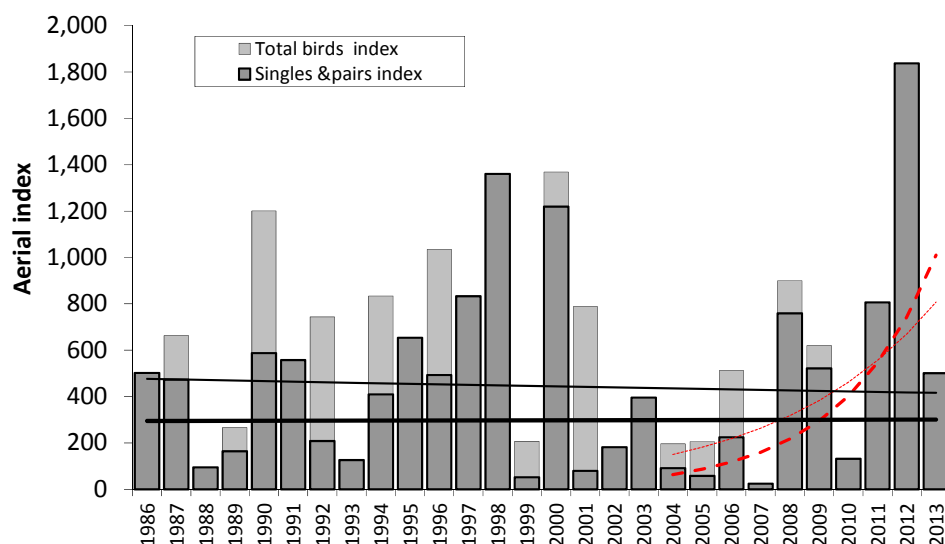


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	0	79	0	0	0	85	106	85	106
1987	116	0	183	0	0	108	129	296	264
1988	92	163	0	0	0	262	195	262	195
1989	0	0	0	416	0	0	0	427	511
1990	325	179	0	0	0	496	351	496	351
1991	103	172	0	0	0	281	264	281	264
1992	431	177	0	0	0	592	485	592	485
1993	355	48	0	0	0	380	158	380	158
1994	157	184	0	0	0	341	202	341	202
1995	1288	91	0	0	0	1309	800	1309	800
1996	268	104	0	0	0	371	314	371	314
1997	124	49	0	0	0	164	145	164	145
1998	1109	642	0	0	0	1710	609	1710	609
1999	877	202	0	0	0	1029	826	1029	826
2000	299	98	0	0	0	389	148	389	148
2001	0	0	0	0	0	0	0	0	0
2002	359	199	0	0	0	550	216	550	216
2003	0	0	0	0	0	0	0	0	0
2004	223	50	0	0	0	257	189	257	189
2005	0	0	0	0	0	0	0	0	0
2006	102	0	0	0	0	102	58	102	58
2007	423	160	321	0	0	584	358	904	470
2008	81	47	0	0	0	128	85	128	85
2009	155	175	0	0	0	330	194	330	194
2010	301	0	0	0	0	301	191	301	191
2011	0	269	0	0	0	269	179	269	179
2012	714	204	0	0	0	918	287	918	287
2013	608	116	0	0	0	723	277	723	277

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	417	76	(292-543)	1.015	(0.974-1.058)
total birds	28	451	76	(326-575)	0.997	(0.959-1.036)
<b>2004-2013</b>						
breeding birds	10	361	92	(209-513)	1.233	(1.079-1.411)
total birds	10	393	106	(220-567)	1.224	(1.052-1.423)

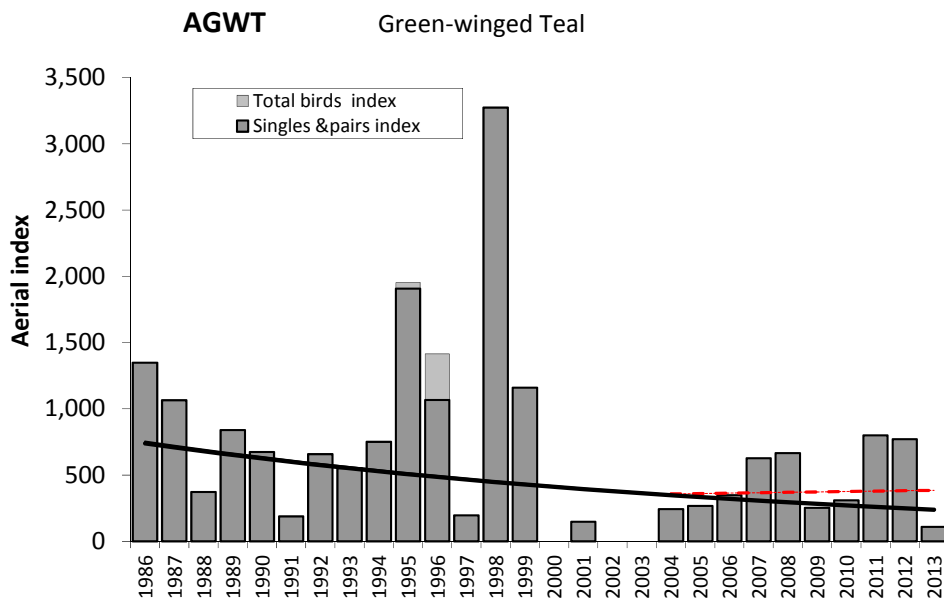
### AMWI American Wigeon



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles &pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	211	224	0	0	0	501	235	360	181
1987	115	672	0	621	0	473	259	663	428
1988	47	0	0	0	0	94	103	68	78
1989	83	0	98	0	0	164	135	265	206
1990	171	678	112	1168	0	588	324	1200	960
1991	155	682	0	0	0	557	280	400	216
1992	75	161	202	554	0	208	110	743	405
1993	48	214	0	0	0	126	143	104	111
1994	185	290	0	500	0	409	343	834	456
1995	180	1019	0	0	0	653	262	534	224
1996	246	246	241	466	0	492	148	1035	436
1997	281	497	0	195	0	832	363	834	368
1998	483	1170	0	444	0	1360	532	1316	495
1999	0	52	0	155	0	52	43	207	156
2000	373	1017	98	312	0	1219	546	1368	509
2001	0	217	0	731	0	79	70	788	921
2002	41	99	0	0	0	181	118	158	101
2003	148	370	0	0	0	395	340	339	269
2004	46	0	0	131	0	90	81	196	138
2005	0	57	0	148	0	57	33	205	145
2006	87	137	0	552	0	224	104	512	394
2007	0	24	0	0	0	24	22	24	22
2008	382	377	0	141	0	759	297	900	317
2009	210	312	0	99	0	521	217	620	231
2010	0	131	0	0	0	131	85	131	85
2011	212	594	0	0	0	806	411	806	411
2012	1002	836	0	0	0	1837	411	1837	411
2013	219	282	0	0	0	500	206	500	206

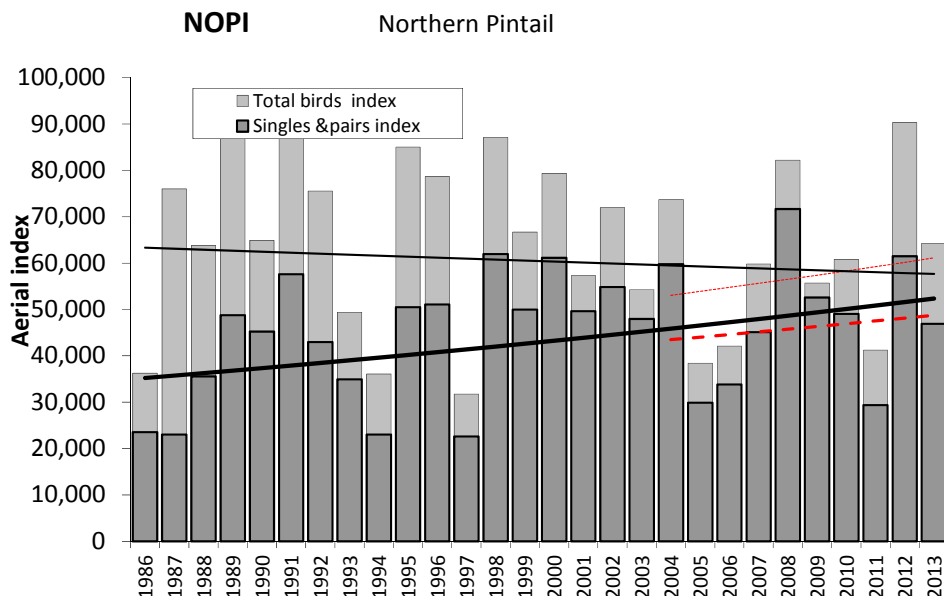
	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	476	82	(341-612)	1.001	(0.959-1.045)
total birds	28	605	86	(464-746)	1.002	(0.963-1.042)
<b>2004-2013</b>						
breeding birds	10	495	175	(207-783)	1.361	(1.123-1.648)
total birds	10	573	168	(296-850)	1.205	(0.976-1.489)



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	772	570	0	0	0	1348	616	1211	568
1987	660	349	0	0	0	1064	578	956	532
1988	293	0	0	0	0	372	286	335	261
1989	484	349	0	0	0	840	476	755	437
1990	177	699	0	0	0	674	485	606	447
1991	148	0	0	0	0	188	212	169	194
1992	461	109	0	0	0	657	347	591	317
1993	411	96	0	0	0	553	305	531	285
1994	614	48	0	0	0	750	346	708	321
1995	1181	593	110	0	0	1908	513	1954	505
1996	442	754	370	0	0	1067	368	1414	391
1997	98	98	0	0	0	195	84	195	84
1998	1559	1938	0	0	0	3274	1436	2975	1328
1999	892	52	0	0	0	1160	665	1057	615
2000	0	0	0	0	0	0	0	0	0
2001	97	49	0	0	0	146	77	146	77
2002	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0
2004	201	0	0	0	0	242	198	222	182
2005	78	294	0	0	0	267	246	248	226
2006	0	455	0	0	0	347	190	327	177
2007	466	160	0	0	0	627	215	627	215
2008	585	81	0	0	0	666	291	666	291
2009	203	48	0	0	0	251	129	251	129
2010	106	202	0	0	0	308	88	308	88
2011	586	212	0	0	0	798	367	798	367
2012	265	505	0	0	0	771	210	771	210
2013	109	0	0	0	0	109	53	109	53

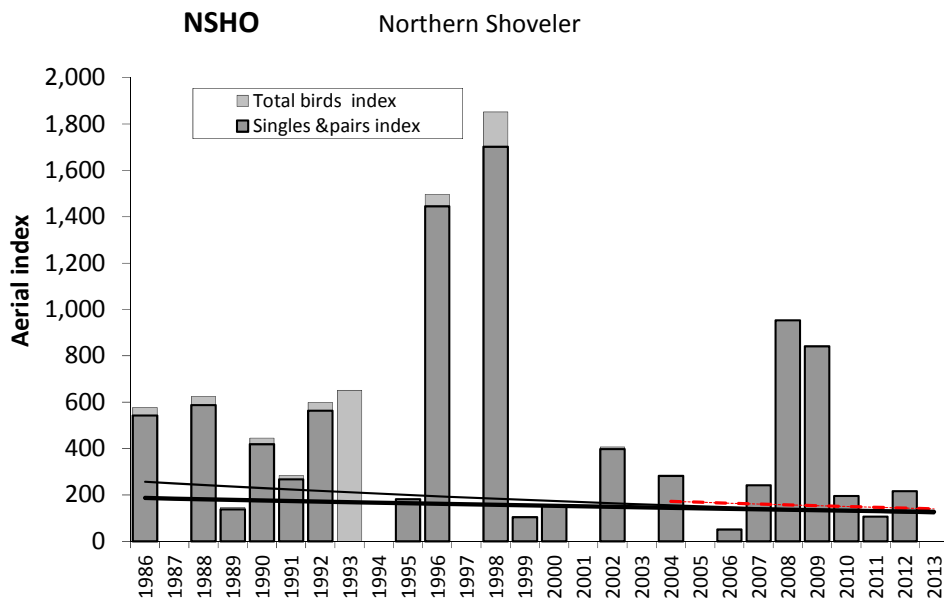
	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	664	128	(453-875)	0.959	(0.922-0.998)
total birds	28	640	122	(440-841)	0.962	(0.925-1.001)
<b>2004-2013</b>						
breeding birds	10	439	79	(308-569)	1.008	(0.891-1.140)
total birds	10	433	80	(300-565)	1.018	(0.898-1.154)



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	15077	8482	6310	8812	0	23533	2565	36279	5413
1987	13961	9090	9752	32550	1776	23020	3131	75983	23725
1988	25525	10040	3718	21625	517	35544	3386	63794	8004
1989	40299	8465	9820	27825	1340	48769	6078	90413	14121
1990	38339	6846	5121	16855	0	45195	5465	64894	9222
1991	47002	10577	11609	20433	1602	57581	5749	90253	11069
1992	33472	9483	7733	19515	2105	42946	4158	75558	8111
1993	28678	6233	2884	10013	600	34913	2524	49411	4899
1994	20530	2442	1739	8795	1331	22975	2175	36060	4364
1995	41476	9040	4399	26281	3108	50509	3909	85039	7930
1996	44351	6696	6043	20049	2564	51047	4234	78644	9927
1997	19645	2960	1951	7350	0	22605	2428	31737	3637
1998	47477	14503	6815	17464	1951	61970	4733	87104	7457
1999	35361	14602	2605	14161	0	49959	3260	66674	5259
2000	41024	20101	3748	13203	2076	61117	3561	79357	6366
2001	35560	14090	3117	7077	0	49639	3600	57333	4911
2002	46620	8233	3094	14748	988	54846	4544	71946	7036
2003	39414	8532	1651	6581	0	47941	4819	54275	6931
2004	47509	12252	3226	10615	593	59749	4924	73690	6074
2005	26499	3409	858	8179	574	29911	2868	38364	3706
2006	30471	3322	1353	8112	0	33801	3143	42102	4273
2007	40114	5019	1883	12781	0	45132	3839	59796	6120
2008	60957	10695	1573	8175	824	71652	5391	82224	7207
2009	44576	8011	524	2605	0	52587	6480	55715	7094
2010	34163	14855	2999	8163	619	49018	4257	60800	5868
2011	22550	6834	2900	8937	0	29384	2546	41221	4463
2012	48402	13083	1354	16921	10509	61485	5401	90269	10914
2013	38486	8401	1454	9111	6826	46887	3496	64276	8387

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	45,133	2,556	(40,928-49,337)	1.015	(1.002-1.027)
total birds	28	64,400	3,444	(58,735-70,066)	0.998	(0.985-1.010)
<b>2004-2013</b>						
breeding birds	10	47,961	4,455	(40,632-55,289)	1.013	(0.955-1.074)
total birds	10	60,846	5,547	(51,722-69,970)	1.026	(0.972-1.084)

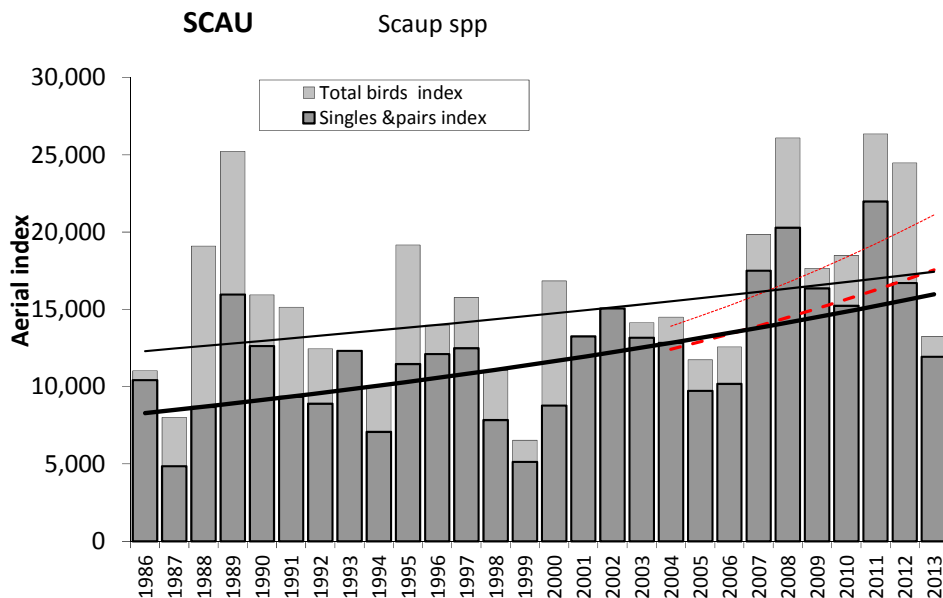


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles &pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	169	278	0	0	0	543	356	577	381
1987	0	0	0	0	0	0	0	0	0
1988	265	162	0	0	0	587	377	624	404
1989	0	141	0	0	0	137	162	146	173
1990	258	0	0	0	0	418	305	445	326
1991	0	275	0	0	0	267	229	284	245
1992	226	204	0	0	0	563	525	599	561
1993	0	0	0	874	0	0	0	650	862
1994	0	0	0	0	0	0	0	0	0
1995	88	93	0	0	0	181	89	181	89
1996	888	313	0	0	0	1445	591	1497	628
1997	0	0	0	0	0	0	0	0	0
1998	664	995	124	0	0	1701	497	1852	537
1999	52	52	0	0	0	103	79	103	79
2000	0	153	0	0	0	153	76	153	76
2001	0	0	0	0	0	0	0	0	0
2002	241	99	0	0	0	398	208	407	219
2003	0	0	0	0	0	0	0	0	0
2004	232	50	0	0	0	282	109	282	109
2005	0	0	0	0	0	0	0	0	0
2006	0	51	0	0	0	51	53	51	53
2007	49	193	0	0	0	242	112	242	112
2008	433	521	0	0	0	953	433	953	433
2009	486	355	0	0	0	841	475	841	475
2010	195	0	0	0	0	195	145	195	145
2011	106	0	0	0	0	106	82	106	82
2012	95	120	0	0	0	215	100	215	100
2013	0	0	0	0	0	0	0	0	0

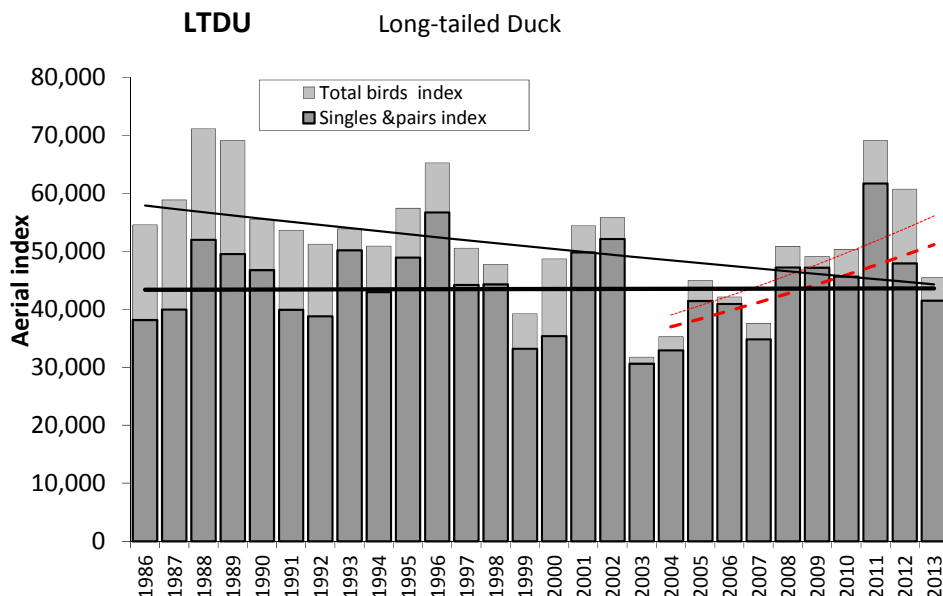
	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	335	81	(201-469)	0.986	(0.933-1.041)
total birds	28	371	86	(230-513)	0.972	(0.921-1.026)
<b>2004-2013</b>						
breeding birds	10	288	106	(113-464)	0.977	(0.764-1.250)
total birds	10	288	106	(113-464)	0.977	(0.764-1.250)





Year	n singles index	2*n pairs index	birds in groups 3-5 index	birds in groups 6-30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	1467	11186	990	1415	0	10422	1534	11025	1772
1987	706	5145	860	1941	0	4855	967	8014	2080
1988	2021	6947	1704	5854	0	8695	1298	19104	4790
1989	2069	17665	2119	6178	0	15962	2081	25230	3874
1990	2869	10276	1014	3161	0	12620	1823	15948	3296
1991	1754	8728	1746	2873	378	9352	1442	15149	2790
1992	1738	8096	1017	2701	0	8897	2646	12464	2986
1993	3001	9360	351	831	0	12313	1851	10739	1846
1994	1331	6943	271	2293	0	7081	878	10078	2289
1995	2210	10204	624	5734	0	11474	1115	19168	3361
1996	3431	8870	121	2290	0	12108	2205	13982	3083
1997	2559	11042	485	3016	0	12482	2832	15767	2611
1998	2336	4884	0	1901	556	7835	1130	11057	2002
1999	1269	3946	463	1046	0	5132	1274	6544	1684
2000	2271	6003	546	3031	1060	8768	1426	16839	3856
2001	2757	10928	0	1596	0	13262	2505	13102	2028
2002	3915	10788	124	2564	0	15065	2823	14752	2315
2003	2440	12266	605	1924	0	13174	2596	14147	3669
2004	2792	11321	498	2403	0	12845	1875	14496	2379
2005	2263	7077	0	1808	984	9722	1275	11745	2131
2006	2817	6813	373	2052	1015	10176	1198	12578	2114
2007	4797	12711	0	2334	0	17508	2502	19842	2778
2008	5051	15240	121	4268	1413	20291	2638	26094	4291
2009	4823	11532	0	1310	0	16355	2601	17665	2913
2010	1878	13349	523	2749	0	15227	2504	18499	2812
2011	3420	18559	459	3929	0	21979	3801	26367	3841
2012	3229	13481	438	4481	2862	16709	2433	24490	3951
2013	1940	9991	132	1192	0	11931	2744	13256	2902

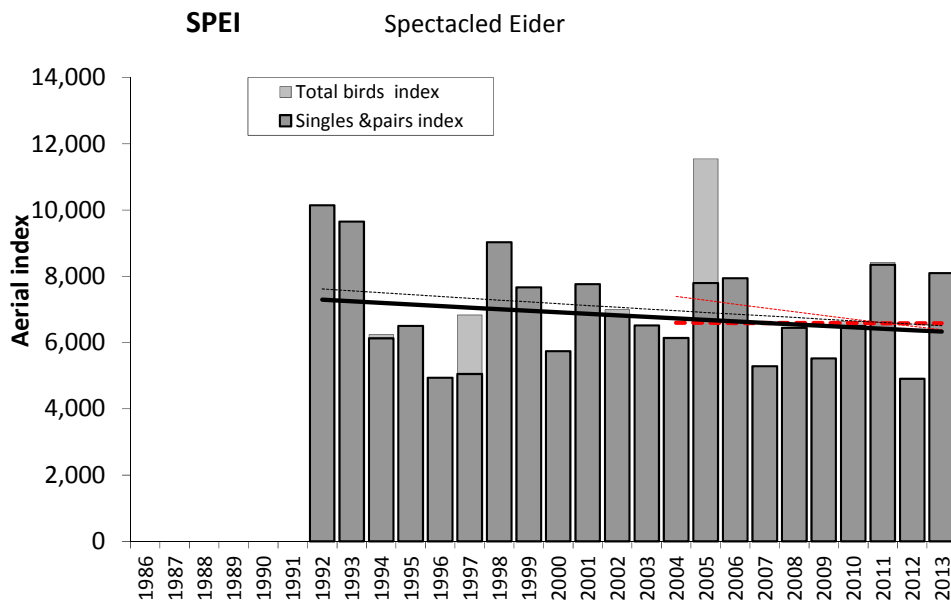
	1986-2013	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	<b>12,223</b>	786	(10,929-13,516)	<b>1.025</b>	(1.012-1.037)	
total birds	28	<b>15,648</b>	991	(14,017-17,278)	<b>1.015</b>	(1.002-1.028)	
<b>2004-2013</b>							
breeding birds	10	<b>15,274</b>	1,301	(13,135-17,414)	<b>1.039</b>	(0.990-1.091)	
total birds	10	<b>18,503</b>	1,771	(15,591-21,416)	<b>1.046</b>	(0.993-1.102)	



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

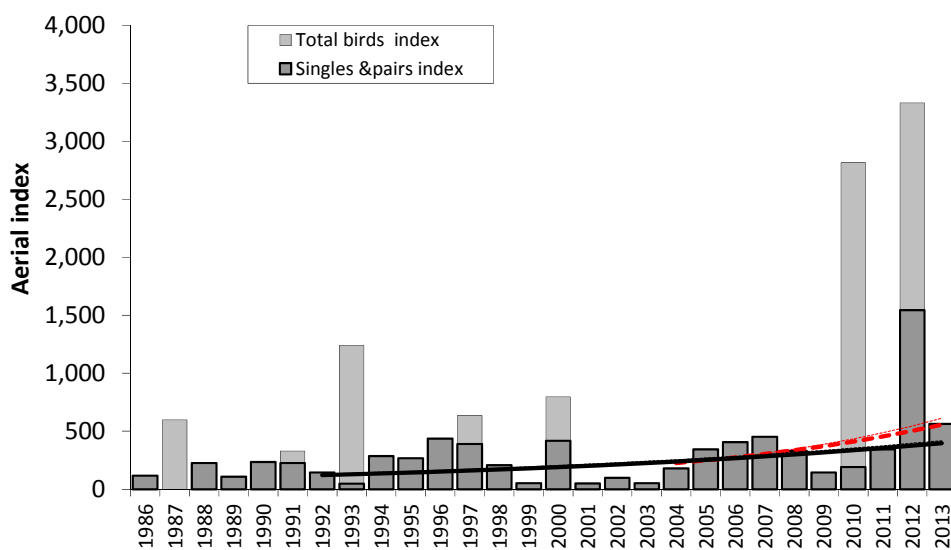
Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	16445	24447	5871	12880	0	38186	2792	54594	4916
1987	17868	23761	8228	12613	288	39982	3456	58909	8429
1988	25202	25338	3330	16914	0	51990	3685	71169	5601
1989	18276	40354	7852	14972	0	49538	3338	69155	6198
1990	20949	27640	4438	6243	0	46758	3525	55509	4753
1991	17942	23471	4441	11032	0	39938	3035	53659	4466
1992	15343	28751	3016	7581	572	38827	3022	51245	4440
1993	24097	24458	1194	2915	0	50180	2969	53886	3204
1994	21358	21007	1428	6778	0	42965	2702	50938	4154
1995	22077	26176	2284	6835	0	48956	2731	57454	3459
1996	28983	25829	1985	6134	847	56733	3319	65282	3802
1997	19186	27094	2510	4481	0	44243	2741	50572	2897
1998	22559	20552	1026	2430	0	44329	2637	47786	2957
1999	16283	15894	1539	4792	0	33205	2336	39258	3260
2000	16536	18691	3688	8308	411	35406	2257	48718	5844
2001	20887	29149	1696	3322	0	49851	3507	54455	3529
2002	24271	29535	461	3412	0	52135	3417	55871	3706
2003	14965	15226	0	1184	0	30613	2101	31784	2141
2004	16494	16430	632	1916	0	32935	2898	35296	2811
2005	18996	21977	572	3250	0	41459	2740	45008	3128
2006	19475	20927	0	1215	0	40950	3150	42139	3255
2007	18165	16687	698	2044	0	34852	2412	37595	2639
2008	23850	23406	162	2089	1413	47256	2766	50919	2981
2009	24166	23030	432	1514	0	47195	2440	49142	2567
2010	18963	26710	1201	3459	0	45673	3773	50332	4103
2011	28298	33442	673	5260	1473	61740	5371	69146	6875
2012	24669	23246	756	5911	6167	47915	4006	60748	7135
2013	18710	22779	559	2362	1057	41490	2718	45467	2947

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	44,118	1,396	(41,822-46,414)	1.000	(0.994-1.007)
total birds	28	52,001	1,863	(48,937-55,066)	0.991	(0.984-0.998)
<b>2004-2013</b>						
breeding birds	10	44,147	2,542	(39,965-48,328)	1.037	(1.009-1.065)
total birds	10	48,579	3,233	(43,260-53,898)	1.048	(1.019-1.078)



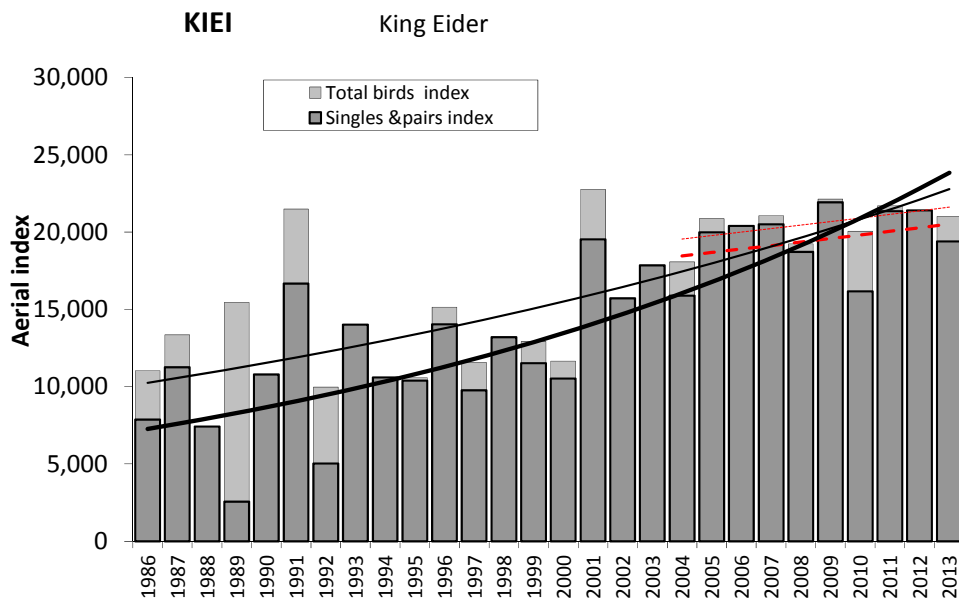
Year	2*n		birds in 5 index	birds in 30 index	birds in >30 index	Singles &pairs index	SE breeding bird index	Total	
	singles index	2*n pairs index						birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	3373	10075	0	0	0	10149	5722	9774	5412
1993	4460	6201	0	0	0	9650	1015	9615	999
1994	2603	3522	119	0	0	6125	705	6244	710
1995	2534	3971	0	0	0	6505	667	6505	667
1996	2792	2143	0	0	0	4935	633	4935	633
1997	2521	2529	57	0	0	5050	508	6835	2089
1998	5153	3877	0	0	0	9030	1082	9030	1082
1999	2726	4318	0	0	0	7664	1237	7600	1185
2000	3259	2481	0	0	0	5740	501	5740	501
2001	2660	6125	0	0	0	7763	1221	7727	1182
2002	3773	2679	0	224	0	6808	1416	6994	1420
2003	3653	2863	0	0	0	6515	601	6515	601
2004	3245	2895	0	0	0	6140	601	6140	601
2005	3345	4451	0	4449	0	7796	1010	11551	3478
2006	4005	3579	0	0	0	7941	1330	7904	1302
2007	3297	1990	0	0	0	5287	765	5287	765
2008	3149	3296	0	0	0	6445	758	6445	758
2009	3056	2469	0	0	0	5525	1075	5525	1075
2010	3608	2893	136	0	0	6500	839	6637	856
2011	4698	3650	71	0	0	8348	971	8419	980
2012	2557	2345	0	0	0	4902	550	4902	550
2013	4014	4084	0	0	0	8098	1044	8098	1044
1992-2013	nyrs	Avg	SE index	(90%ci)		Growth		(90%ci)	
breeding birds	22	6,951	323	(6,419-7,483)		0.998		(0.986-1.010)	
total birds	22	7,201	363	(6,603-7,799)		0.997		(0.983-1.010)	
2004-2013									
breeding birds	10	6,698	401	(6,039-7,357)		1.000		(0.963-1.037)	
total birds	10	7,091	627	(6,060-8,122)		0.984		(0.937-1.033)	

### COEI Common Eider



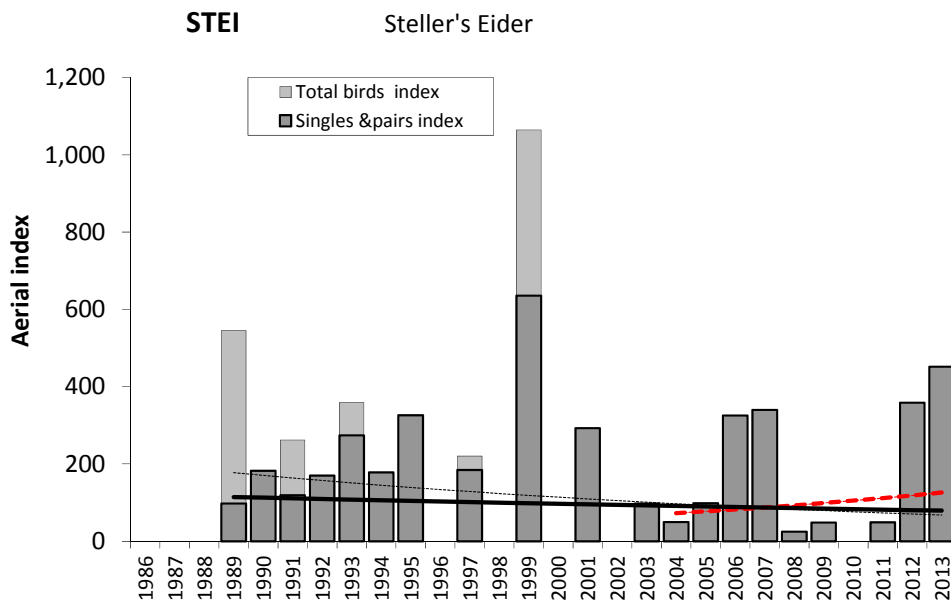
ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles &pairs index	SE breeding bird index	Total birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	32	161	0	0	0	144	102	104	81
1993	48	0	0	0	1194	48	48	1242	1197
1994	143	143	0	0	0	286	160	286	160
1995	0	356	0	0	0	268	210	233	183
1996	387	48	0	0	0	435	222	435	222
1997	49	342	0	244	0	391	324	635	556
1998	104	104	0	0	0	208	174	208	174
1999	52	0	0	0	0	52	50	52	50
2000	212	147	220	208	0	417	217	798	275
2001	49	0	0	0	0	49	43	49	43
2002	50	50	0	0	0	99	72	99	72
2003	53	0	0	0	0	53	59	53	59
2004	135	0	0	0	0	180	171	144	134
2005	98	246	0	0	0	344	256	344	256
2006	51	355	0	0	0	406	368	406	368
2007	146	306	0	0	0	452	258	452	258
2008	94	235	0	0	0	330	286	330	286
2009	48	96	0	0	0	144	111	144	111
2010	0	191	0	0	2627	191	195	2818	2877
2011	147	196	0	0	0	344	263	344	263
2012	143	1402	119	477	1193	1545	804	3334	2109
2013	299	266	0	0	0	565	265	565	265
1992-2013	nyrs	Avg	SE index	(90%ci)		Growth	(90%ci)		
breeding birds	22	316	67	(206-426)		1.061	(1.008-1.117)		
total birds	22	594	182	(294-894)		1.046	(0.977-1.120)		
2004-2013									
breeding birds	10	450	128	(239-661)		1.106	(0.984-1.242)		
total birds	10	888	369	(281-1,495)		1.214	(1.024-1.440)		



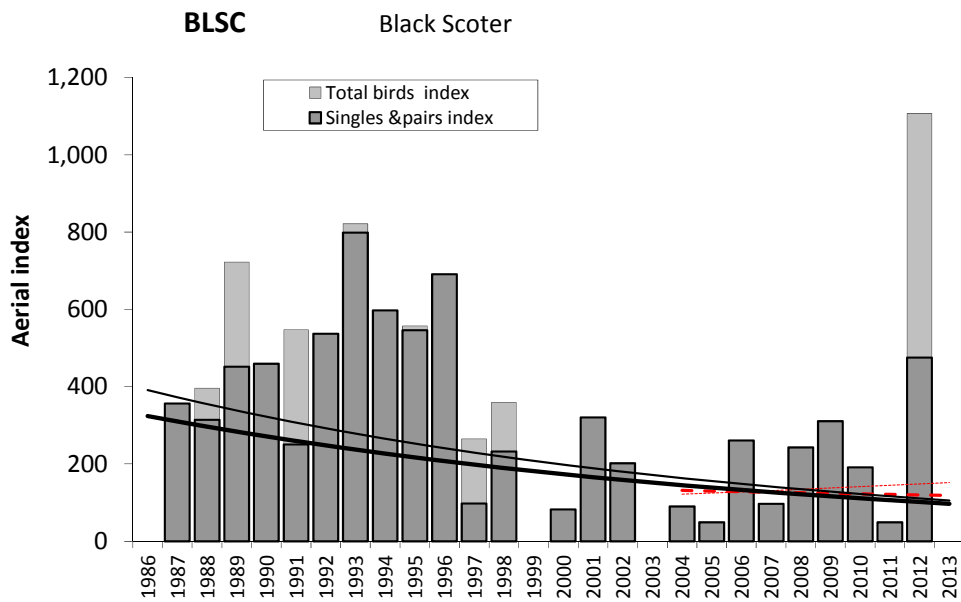
Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	2469	5642	196	236	0	7867	1911	11029	2855
1987	3281	8708	186	215	0	11260	2621	13365	3074
1988	3540	2298	0	0	0	7415	2214	5841	1710
1989	1086	1143	367	901	0	2568	1131	15453	4590
1990	4531	4890	0	183	0	10791	2572	10248	2472
1991	5113	12252	235	0	5626	16669	3274	21498	6258
1992	1653	3409	109	481	0	5020	1066	9980	1771
1993	3816	9890	0	122	0	14024	1941	13959	2463
1994	3309	7196	214	143	0	10600	1496	10527	1328
1995	3486	6939	0	373	0	10384	1057	10587	1055
1996	7790	6154	0	297	0	14033	1707	15144	2650
1997	2553	7494	261	965	0	9763	1201	11550	1568
1998	5005	9144	192	0	0	13205	3460	12415	2765
1999	3055	8600	150	0	0	11519	1898	12920	2600
2000	3548	6831	0	126	0	10531	1206	11656	1628
2001	4692	13912	0	445	0	19535	2170	22758	2728
2002	4731	12023	99	447	0	15715	1795	15525	1758
2003	6549	10649	0	0	0	17855	2373	16180	1963
2004	6865	8406	0	427	0	15893	2232	18074	2952
2005	6738	12658	0	695	0	19989	3349	20883	2718
2006	5821	16163	0	143	0	20402	3186	19611	2975
2007	10753	9756	0	554	0	20510	2589	21063	2725
2008	6574	12156	0	506	0	18731	3215	19236	3327
2009	7071	14856	0	222	0	21927	2611	22149	2630
2010	5597	10574	698	3183	0	16172	1687	20053	2668
2011	9809	11557	196	142	0	21366	2509	21704	2559
2012	8399	13007	0	0	0	21406	2657	21406	2657
2013	7938	11456	68	1550	0	19395	2521	21013	3078

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	14,448	1,011	(12,785-16,111)	1.045	(1.031-1.059)
total birds	28	15,922	909	(14,428-17,417)	1.030	(1.021-1.040)
<b>2004-2013</b>						
breeding birds	10	19,579	664	(18,486-20,672)	1.012	(0.991-1.033)
total birds	10	20,519	397	(19,866-21,172)	1.012	(1.003-1.022)



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n		birds in			Singles & pairs index	SE breeding bird index	Total	
	singles index	2*n pairs index	groups 5 index	groups 6-30 index	groups >30 index			birds index	SE total birds index
1986									
1987									
1988									
1989	46	0	0	110	0	98	65	546	388
1990	72	53	0	0	0	182	89	141	71
1991	28	111	0	40	0	119	75	262	151
1992	62	71	0	0	0	170	62	132	50
1993	78	222	116	0	0	274	132	359	159
1994	45	110	0	0	0	178	98	149	83
1995	0	326	0	0	0	326	166	326	166
1996	0	0	0	0	0	0	0	0	0
1997	0	218	49	0	0	185	120	220	121
1998	0	0	0	0	0	0	0	0	0
1999	103	532	0	239	0	635	405	1065	495
2000	0	0	0	0	0	0	0	0	0
2001	97	195	0	0	0	292	212	292	212
2002	0	0	0	0	0	0	0	0	0
2003	98	0	0	0	0	98	98	98	98
2004	50	0	0	0	0	50	52	50	52
2005	49	49	0	0	0	98	68	98	68
2006	173	152	0	0	0	326	146	326	146
2007	194	146	0	0	0	340	256	340	256
2008	25	0	0	0	0	25	25	25	25
2009	0	48	0	0	0	48	50	48	50
2010	0	0	0	0	0	0	0	0	0
2011	0	49	0	0	0	49	49	49	49
2012	48	311	0	0	0	358	256	358	256
2013	158	293	0	0	0	452	333	452	333
1992-2013	nyrs		Avg	SE index	(90%ci)		Growth	(90%ci)	
breeding birds	25		172	33	(118-226)		0.997	(0.916-1.086)	
total birds	25		213	47	(136-291)		0.992	(0.908-1.084)	
2004-2013									
breeding birds	10		175	54	(85-264)		1.064	(0.835-1.355)	
total birds	10		175	54	(85-264)		1.064	(0.835-1.355)	

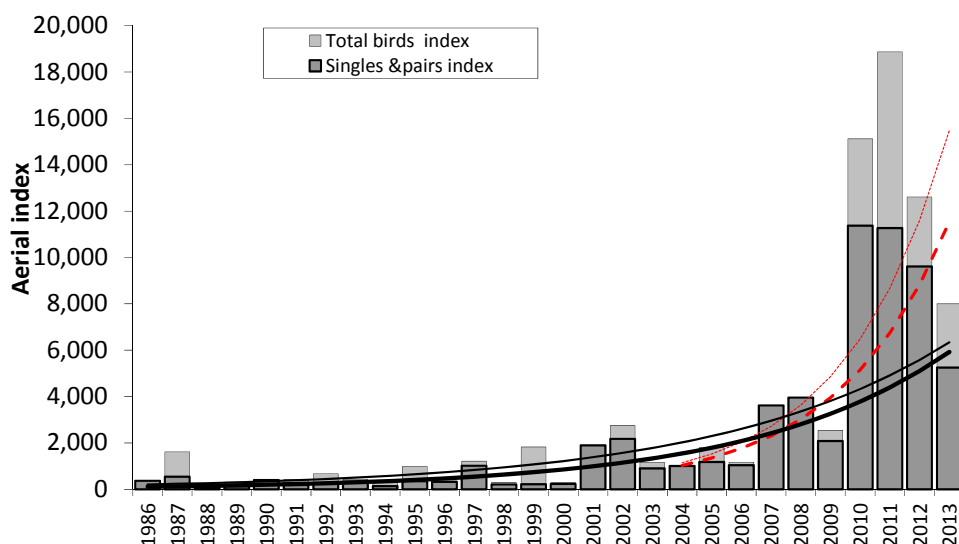


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles &pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	0	0	0	0	0	0	0	0	0
1987	23	1026	48	52	0	357	170	258	141
1988	117	218	26	228	0	314	134	396	203
1989	44	1193	89	427	0	451	226	722	353
1990	85	931	34	138	0	459	258	376	213
1991	19	695	18	412	0	250	137	548	312
1992	84	1190	54	203	0	537	249	497	257
1993	183	1256	28	409	0	799	399	821	540
1994	179	725	24	158	0	598	314	448	249
1995	97	759	23	137	0	546	305	557	347
1996	199	786	0	251	0	691	317	586	318
1997	15	217	0	218	0	98	111	265	218
1998	84	295	0	236	0	232	102	360	232
1999	0	0	0	0	0	0	0	0	0
2000	39	0	0	0	0	82	72	36	35
2001	151	0	0	30	0	321	216	171	109
2002	41	264	0	0	0	201	100	116	67
2003	0	0	0	0	0	0	0	0	0
2004	21	153	0	0	0	90	65	39	32
2005	49	0	0	0	0	49	51	49	51
2006	155	151	0	0	0	260	138	171	92
2007	49	49	0	0	0	97	70	97	70
2008	0	242	0	0	0	242	216	242	216
2009	136	175	0	0	0	311	95	311	95
2010	191	0	0	0	0	191	120	191	120
2011	49	0	0	0	0	49	47	49	47
2012	211	264	0	632	0	475	216	1107	675
2013	0	0	0	0	0	0	0	0	0

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	275	42	(206-344)	0.956	(0.918-0.997)
total birds	28	301	53	(214-387)	0.952	(0.907-0.999)
<b>2004-2013</b>						
breeding birds	10	176	47	(100-253)	0.989	(0.822-1.190)
total birds	10	226	103	(56-395)	1.068	(0.849-1.342)

## WWSC White-winged Scoter

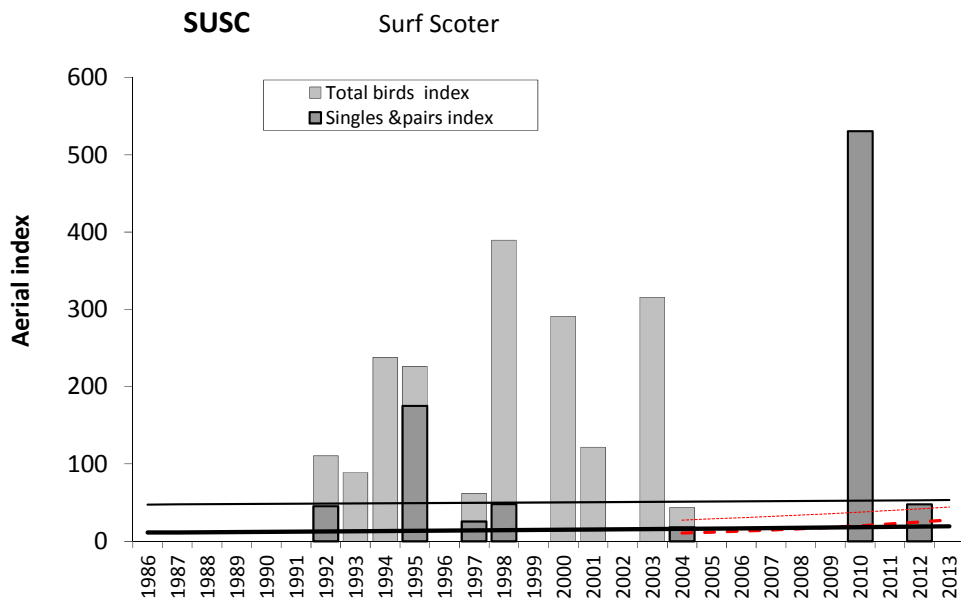


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	36	254	0	55	0	363	164	357	166
1987	50	384	121	627	0	538	279	1615	933
1988	17	32	0	83	0	73	60	200	198
1989	0	111	87	79	0	123	112	306	220
1990	19	318	0	0	0	395	226	281	160
1991	16	134	0	162	0	183	143	420	294
1992	41	134	0	276	0	241	134	665	338
1993	67	150	0	119	0	318	314	439	286
1994	18	90	0	104	0	135	88	298	180
1995	110	187	115	339	0	339	190	979	690
1996	99	82	0	72	0	317	293	354	266
1997	47	827	93	213	0	1009	394	1211	473
1998	16	162	0	108	0	208	106	280	167
1999	29	141	0	0	1833	217	107	1822	1387
2000	74	52	0	60	0	222	123	280	160
2001	217	1279	0	191	0	1893	878	1730	811
2002	476	1040	344	491	0	2176	979	2750	1305
2003	328	187	0	278	0	897	457	1150	493
2004	166	566	83	0	0	1003	530	788	418
2005	287	529	83	488	0	1179	659	1800	987
2006	257	402	98	190	0	1034	481	1163	548
2007	235	3384	0	0	0	3619	1644	3619	1644
2008	540	3409	0	0	0	3949	2132	3949	2132
2009	884	1194	0	466	0	2078	1170	2544	1498
2010	1311	10062	0	3742	0	11373	3115	15115	5125
2011	919	10350	407	7188	0	11269	4232	18864	7787
2012	1731	7882	0	2997	0	9613	4461	12609	5490
2013	1321	3924	715	266	1772	5246	2301	7999	2866

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	<b>2,143</b>	625	(1,115-3,171)	<b>1.161</b>	(1.127-1.196)
total birds	28	<b>2,985</b>	906	(1,496-4,475)	<b>1.138</b>	(1.105-1.173)
<b>2004-2013</b>						
breeding birds	10	<b>5,036</b>	1,330	(2,849-7,223)	<b>1.308</b>	(1.182-1.448)
total birds	10	<b>6,845</b>	2,052	(3,469-10,221)	<b>1.373</b>	(1.236-1.525)

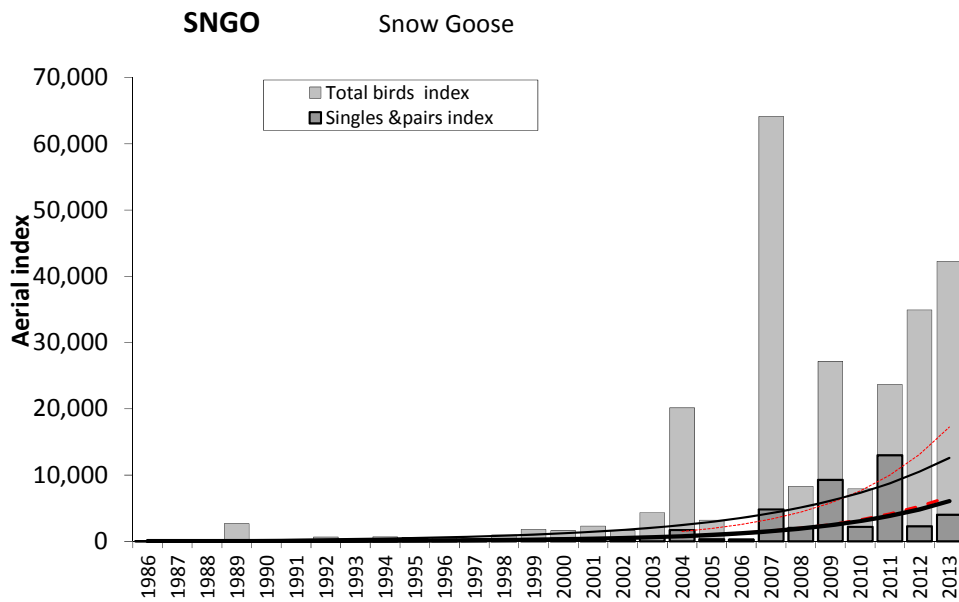




ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	0	0	0	0	0	0	0	0	0
1987	0	0	0	0	0	0	0	0	0
1988	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0
1990	0	0	0	0	0	0	0	0	0
1991	0	0	0	0	0	0	0	0	0
1992	67	0	0	0	0	45	52	111	102
1993	0	0	129	0	0	0	0	89	152
1994	0	0	0	238	0	0	0	238	233
1995	99	93	0	0	0	175	116	226	147
1996	0	0	0	0	0	0	0	0	0
1997	0	38	0	0	0	25	38	62	76
1998	47	24	0	427	0	48	78	390	454
1999	0	0	0	0	0	0	0	0	0
2000	0	0	0	455	0	0	0	291	444
2001	0	0	122	0	0	0	0	122	130
2002	0	0	0	0	0	0	0	0	0
2003	0	0	0	494	0	0	0	316	319
2004	27	0	0	0	0	18	34	44	69
2005	0	0	0	0	0	0	0	0	0
2006	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0
2008	0	0	0	0	0	0	0	0	0
2009	0	0	0	0	0	0	0	0	0
2010	425	106	0	0	0	531	417	531	417
2011	0	0	0	0	0	0	0	0	0
2012	48	0	0	0	0	48	49	48	49
2013	0	0	0	0	0	0	0	0	0

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	32	19	(0-63)	1.020	(0.980-1.061)
total birds	28	88	26	(46-130)	1.004	(0.961-1.049)
<b>2004-2013</b>						
breeding birds	10	60	53	(0-146)	1.113	(0.870-1.425)
total birds	10	62	52	(0-148)	1.055	(0.872-1.276)

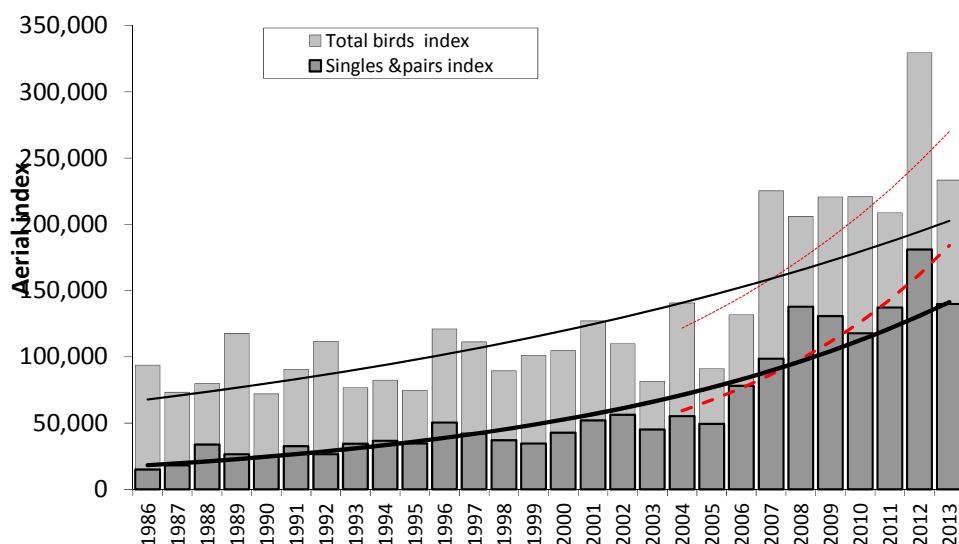


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3-5 index	birds in groups 6-30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	16	0	167	0	0	22	27	127	138
1987	0	0	0	0	0	0	0	0	0
1988	16	0	0	347	0	23	29	224	273
1989	0	0	0	2862	899	0	0	2665	3664
1990	0	0	0	0	0	0	0	0	0
1991	0	48	0	0	0	44	54	62	83
1992	63	0	0	905	0	90	62	625	525
1993	0	94	72	143	0	94	65	309	172
1994	24	0	278	655	0	24	24	663	465
1995	114	324	0	132	0	437	193	569	233
1996	99	101	0	378	0	200	109	578	290
1997	69	144	73	0	0	221	107	306	135
1998	83	145	207	520	0	235	100	971	613
1999	49	103	103	1936	0	153	68	1788	894
2000	26	352	336	939	0	378	114	1583	535
2001	0	232	171	1900	0	232	81	2303	1266
2002	25	148	371	1040	0	173	115	1585	734
2003	0	640	596	538	2352	630	255	4317	2111
2004	147	1564	723	3566	14697	1665	1323	20139	15319
2005	14	299	43	621	2185	314	197	3163	1513
2006	69	177	144	0	0	241	104	405	170
2007	48	4735	170	1394	57773	4783	4239	64120	58163
2008	306	1705	532	2243	3496	2011	1309	8282	3707
2009	453	8794	699	4930	12278	9247	5909	27154	17952
2010	110	2051	37	1609	4123	2160	1093	7929	3573
2011	441	12533	584	2250	7855	12974	7582	23662	14869
2012	290	1953	1639	4791	26253	2243	892	34926	16228
2013	297	3695	1387	15141	21758	3991	2069	42277	20361

	1986-2013	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	1,521	570	(584-2,458)	1.259	(1.219-1.300)	
total birds	28	8,955	2,990	(4,036-13,873)	1.252	(1.199-1.308)	
<b>2004-2013</b>							
breeding birds	10	3,963	1,301	(1,823-6,102)	1.280	(1.046-1.566)	
total birds	10	23,206	6,305	(12,834-33,578)	1.265	(0.979-1.633)	

## WFGO White-fronted Goose

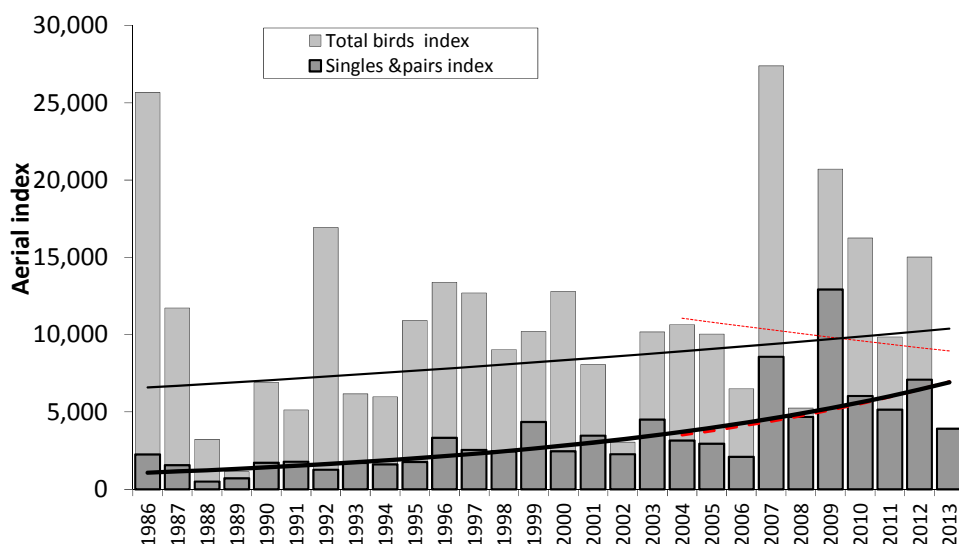


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	2990	12209	24453	41472	713	<b>14920</b>	2045	<b>93644</b>	12467
1987	4684	11827	22618	29462	490	<b>17918</b>	2318	<b>73312</b>	9981
1988	10413	18100	24252	30934	0	<b>33715</b>	3670	<b>79870</b>	9585
1989	5998	19943	24809	45799	1854	<b>26530</b>	2898	<b>117604</b>	14150
1990	6935	14559	20049	29831	126	<b>24325</b>	2752	<b>72028</b>	10383
1991	9465	18861	11911	31571	1819	<b>32444</b>	3389	<b>90392</b>	10007
1992	5380	21449	16854	38791	2851	<b>26457</b>	2580	<b>111589</b>	10739
1993	7327	26424	13244	22409	959	<b>34241</b>	2717	<b>76649</b>	7684
1994	6215	30294	13595	27434	409	<b>36571</b>	2413	<b>82239</b>	7030
1995	10674	21686	12078	20955	2813	<b>34487</b>	2375	<b>74674</b>	10054
1996	14777	34377	23746	45359	1209	<b>50373</b>	3644	<b>121048</b>	6400
1997	7283	35099	25887	29236	4270	<b>41986</b>	3690	<b>111241</b>	11253
1998	9804	26287	19487	23488	2045	<b>36864</b>	3025	<b>89417</b>	7293
1999	8030	26607	19587	29205	9901	<b>34516</b>	2726	<b>101021</b>	16021
2000	8652	33655	23964	29517	1175	<b>42552</b>	3085	<b>104580</b>	7711
2001	7821	45152	28507	36942	1245	<b>52045</b>	3124	<b>127154</b>	8512
2002	11338	46111	21618	32952	513	<b>56194</b>	4332	<b>109947</b>	8415
2003	12029	32875	17817	20272	1370	<b>45097</b>	3301	<b>81525</b>	5841
2004	10235	46099	31339	41368	4275	<b>55150</b>	3736	<b>140612</b>	9824
2005	9800	38996	16604	26058	334	<b>49404</b>	3328	<b>91039</b>	6446
2006	15478	61471	27383	27298	599	<b>78113</b>	5219	<b>131683</b>	10123
2007	17896	80722	35870	76099	14641	<b>98618</b>	8732	<b>225227</b>	19004
2008	30760	107138	21780	39381	6774	<b>137897</b>	10394	<b>205832</b>	14865
2009	32213	98462	22219	58275	9480	<b>130675</b>	12785	<b>220650</b>	26481
2010	22442	95246	23246	60554	19428	<b>117688</b>	8179	<b>220917</b>	25675
2011	48071	89143	30504	39071	1855	<b>137215</b>	11233	<b>208644</b>	17228
2012	44648	136291	41560	73335	33733	<b>180939</b>	11819	<b>329567</b>	20932
2013	21236	118567	36737	39502	17425	<b>139803</b>	9906	<b>233467</b>	15652

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	<b>63,098</b>	8,597	(48,956-77,240)	<b>1.079</b>	(1.070-1.089)
total birds	28	<b>133,056</b>	12,407	(112,647-153,466)	<b>1.043</b>	(1.033-1.054)
<b>2004-2013</b>						
breeding birds	10	<b>112,550</b>	13,203	(90,832-134,269)	<b>1.134</b>	(1.092-1.178)
total birds	10	<b>200,764</b>	20,970	(166,268-235,260)	<b>1.101</b>	(1.055-1.149)

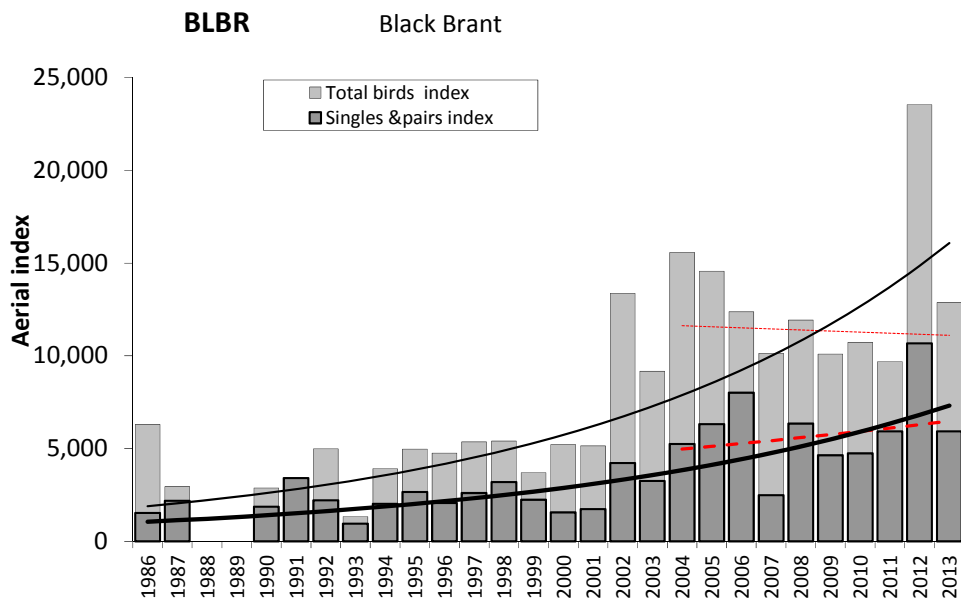
### CAGO Canada Goose



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	665	1630	5172	22595	1731	2242	474	25689	12728
1987	675	729	4134	10786	509	1562	383	11734	8176
1988	224	203	361	3277	177	489	209	3220	2060
1989	218	493	553	598	0	703	230	1134	525
1990	371	1512	2126	4501	383	1716	404	6893	3501
1991	529	1295	1133	4695	142	1782	435	5135	2579
1992	408	851	1406	11368	1674	1261	284	16941	6548
1993	272	1624	831	3050	1040	1685	489	6178	2495
1994	389	1296	789	4505	0	1606	309	5979	1530
1995	969	779	1347	8891	0	1756	369	10913	2690
1996	869	2534	1898	7947	1915	3320	816	13397	3842
1997	766	1772	2267	8433	1984	2536	822	12701	3410
1998	653	1981	1142	6859	0	2464	537	9043	2246
1999	827	3806	1927	6234	0	4347	881	10218	3443
2000	1130	1225	1922	11311	1042	2455	397	12795	3888
2001	1080	2319	1256	5267	0	3460	774	8058	2394
2002	740	1467	643	347	0	2264	385	3044	444
2003	1844	2537	2502	4428	0	4504	681	10188	2210
2004	778	2493	2809	4668	1391	3154	494	10653	1917
2005	1028	1807	1683	6853	718	2946	508	10048	2635
2006	639	1504	872	4688	0	2087	410	6505	1524
2007	3671	4901	3973	13885	972	8572	2117	27402	6551
2008	2363	2310	401	187	0	4672	983	5259	1062
2009	2121	10804	222	4310	3261	12925	2381	20718	5657
2010	3167	2862	539	6847	2849	6030	1114	16264	4565
2011	3276	1879	465	4239	0	5155	1202	9859	2335
2012	3646	3441	2035	4434	1472	7087	1888	15028	4114
2013	1893	2016	0	0	0	3910	1174	3910	1174

	1986-2013	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	3,453	501	(2,628-4,278)	1.071	(1.054-1.090)	
total birds	28	10,675	1,211	(8,683-12,667)	1.017	(0.991-1.045)	
<b>2004-2013</b>							
breeding birds	10	5,654	1,023	(3,971-7,336)	1.079	(0.982-1.186)	
total birds	10	12,565	2,330	(8,731-16,398)	0.974	(0.867-1.095)	

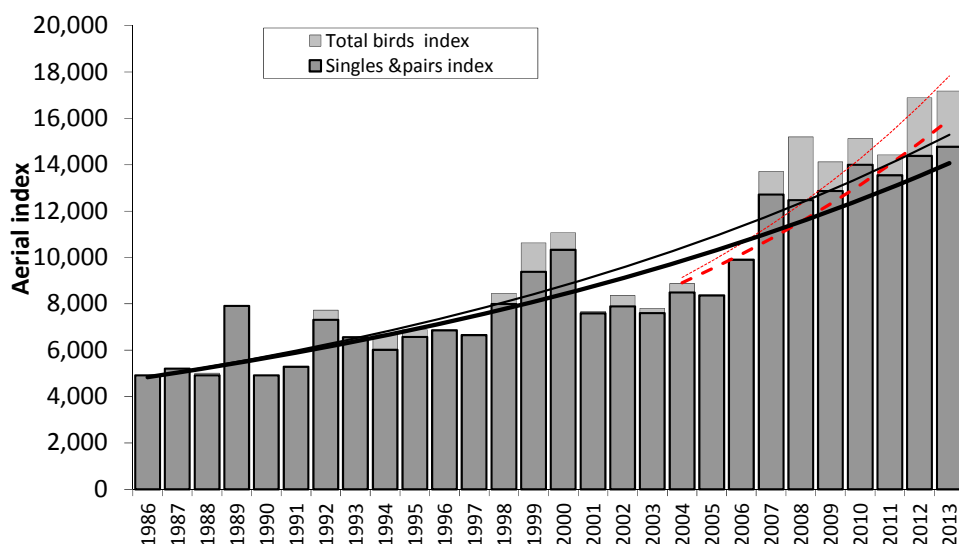


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	461	1275	422	5949	0	1529	594	6297	4712
1987	954	1274	864	1723	0	2176	747	2938	1556
1988	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0
1990	823	1077	420	2037	0	1861	830	2875	1574
1991	1803	1435	500	0	0	3408	1498	1737	708
1992	932	1355	828	407	248	2206	795	4977	3239
1993	419	581	326	139	0	943	281	1324	455
1994	1081	893	469	1546	0	2012	437	3914	921
1995	1649	1004	599	1723	0	2653	1183	4975	2337
1996	1180	833	245	2553	0	2057	562	4751	1555
1997	1231	1445	853	2004	0	2603	762	5352	1770
1998	1555	1635	1079	1135	0	3190	664	5405	1316
1999	640	1599	762	696	0	2239	512	3697	746
2000	908	651	1503	2298	0	1559	294	5210	897
2001	444	1306	1165	2423	0	1729	425	5149	1491
2002	2497	1684	1082	2252	461	4218	699	13368	6210
2003	1913	1249	831	5330	0	3247	688	9159	3104
2004	2563	2741	1551	7145	1900	5246	789	15569	2813
2005	2534	3751	2656	5090	574	6321	929	14558	3013
2006	2945	5084	1122	3477	0	8010	1230	12380	2037
2007	1470	1011	1048	4824	1779	2481	962	10131	3028
2008	2750	3597	1333	4249	0	6347	1652	11930	3720
2009	1884	2751	655	3110	1694	4635	1233	10095	2808
2010	3004	1732	765	2830	2388	4737	982	10720	3892
2011	2406	3513	972	2794	0	5919	1485	9684	2483
2012	3557	7106	1982	6672	4232	10663	2284	23548	5550
2013	1792	4136	831	4806	1297	5928	1567	12862	3586

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	3,497	455	(2,749-4,245)	1.075	(1.055-1.095)
total birds	28	7,593	1,020	(5,916-9,270)	1.092	(1.069-1.116)
<b>2004-2013</b>						
breeding birds	10	6,029	687	(4,899-7,158)	1.030	(0.959-1.106)
total birds	10	13,148	1,310	(10,992-15,303)	1.003	(0.952-1.056)

## SWAN Swan spp

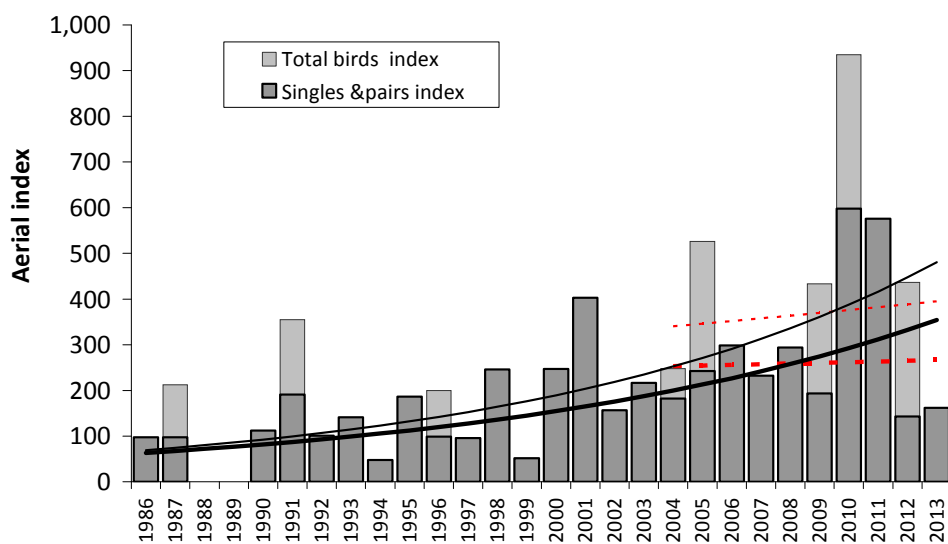


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in >30 flocks	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	1277	3617	268	0	0	4910	693	4690	727
1987	1875	3316	238	0	0	5199	654	4905	627
1988	1794	3111	500	0	0	4913	584	5003	642
1989	2502	5396	521	0	0	7915	857	7682	923
1990	2774	2149	75	0	0	4916	577	4439	554
1991	2736	2549	409	0	0	5280	637	5205	666
1992	3196	4111	467	128	0	7310	716	7726	856
1993	2795	3758	240	0	0	6554	572	6574	579
1994	2390	3626	253	143	0	6018	742	6692	1143
1995	2850	3714	110	323	0	6567	506	6880	723
1996	3946	2906	209	0	0	6852	615	6812	611
1997	3271	3379	298	0	0	6647	803	6607	848
1998	3237	4749	457	390	0	7995	705	8450	867
1999	3625	5743	791	0	930	9381	1264	10625	1675
2000	2991	7321	676	521	0	10331	853	11070	1272
2001	3182	4393	306	0	0	7580	672	7666	729
2002	4011	3874	372	79	0	7882	907	8356	882
2003	3619	3981	448	0	0	7598	850	7808	839
2004	4022	4460	431	52	0	8483	579	8869	550
2005	3581	4779	277	0	0	8361	656	8346	670
2006	4152	5751	347	0	0	9905	871	9924	877
2007	6140	6573	820	170	0	12713	1024	13704	1042
2008	5404	7061	845	854	1036	12466	889	15201	1812
2009	6220	6647	645	607	0	12867	662	14120	936
2010	5153	8850	72	1062	0	14002	1281	15135	2097
2011	5810	7741	872	0	0	13551	790	14423	914
2012	6512	7862	398	334	1789	14373	1025	16894	1825
2013	6258	8513	680	1734	0	14771	1091	17185	1907

	1986-2013 nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	<b>8,762</b>	598	(7,779-9,745)	<b>1.040</b>	(1.035-1.046)
total birds	28	<b>9,321</b>	735	(8,112-10,530)	<b>1.046</b>	(1.040-1.053)
<b>2004-2013</b>						
breeding birds	10	<b>12,149</b>	753	(10,911-13,387)	<b>1.067</b>	(1.049-1.085)
total birds	10	<b>13,380</b>	1,014	(11,712-15,049)	<b>1.082</b>	(1.058-1.106)

### SACR Sandhill Crane

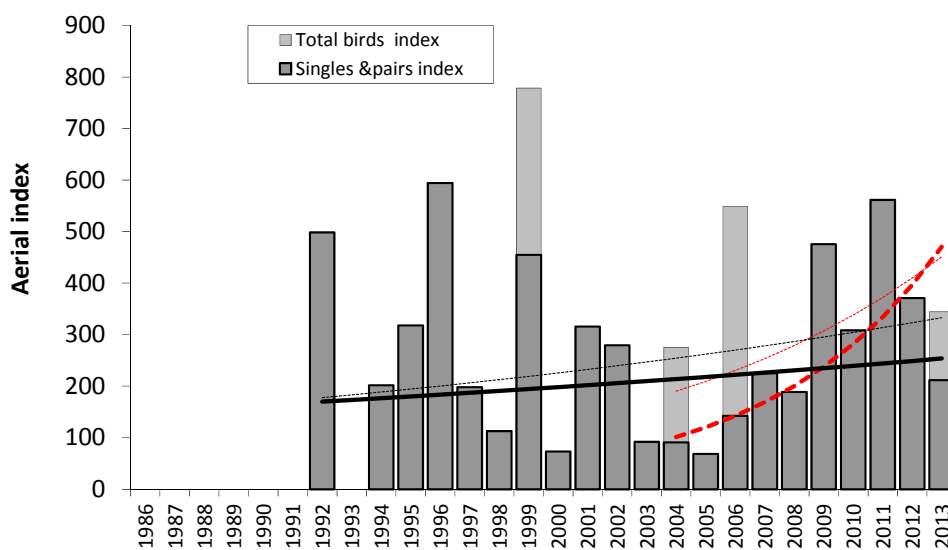


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	2*n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in flocks >30 index	Singles &pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	79	0	0	0	0	98	104	89	96
1987	0	139	69	0	0	98	104	212	163
1988	0	0	0	0	0	0	0	0	0
1989	0	0	0	0	0	0	0	0	0
1990	0	160	0	0	0	112	120	102	110
1991	80	131	101	0	0	191	145	355	241
1992	82	0	0	0	0	101	108	92	99
1993	0	181	0	0	0	141	103	133	97
1994	48	0	0	0	0	48	48	48	48
1995	140	47	0	0	0	186	78	186	78
1996	0	99	101	0	0	99	70	200	118
1997	0	96	0	0	0	96	63	96	63
1998	142	83	0	0	0	246	111	236	106
1999	52	0	0	0	0	52	48	52	48
2000	150	98	0	0	0	247	106	247	106
2001	181	247	0	0	0	403	156	384	147
2002	50	152	0	0	0	156	118	147	110
2003	145	49	0	0	0	217	115	206	109
2004	83	100	65	0	0	182	119	248	130
2005	135	152	0	306	0	242	94	526	372
2006	122	202	0	0	0	299	196	280	181
2007	233	0	0	0	0	233	175	233	175
2008	166	128	0	0	0	294	117	294	117
2009	145	48	0	240	0	193	91	434	297
2010	297	301	337	0	0	598	209	935	198
2011	470	106	0	0	0	576	154	576	154
2012	48	95	293	0	0	143	108	436	211
2013	107	55	0	0	0	162	90	162	90

	1986-2013 nyrs	Avg index	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	193	27	(149-237)	1.066	(1.041-1.091)
total birds	28	247	38	(185-309)	1.076	(1.048-1.104)
<b>2004-2013</b>						
breeding birds	10	292	52	(207-377)	1.006	(0.915-1.105)
total birds	10	412	72	(294-531)	1.019	(0.923-1.125)

### CORA Common Raven

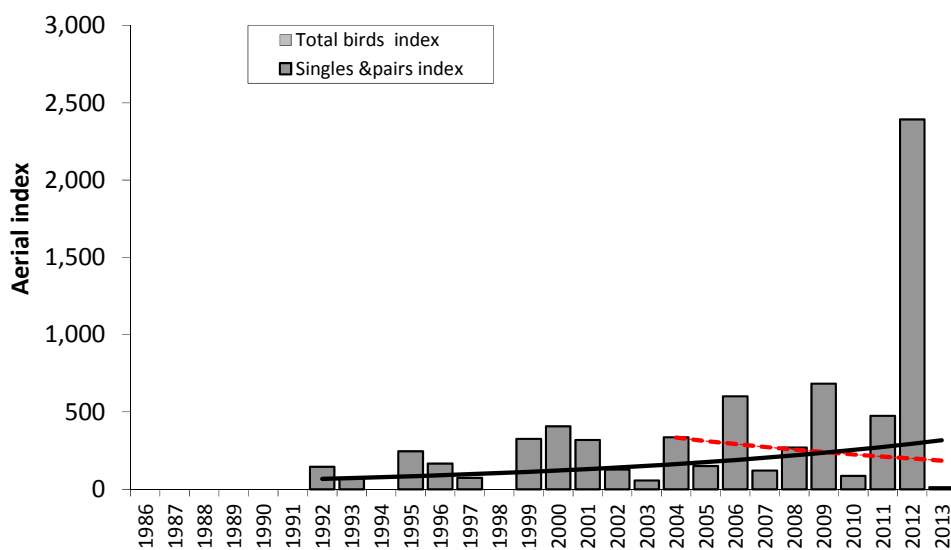


ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in >30 flocks index	Singles & pairs index	SE breeding bird index	Total	
								birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	182	348	0	0	0	499	291	499	291
1993	0	0	0	0	0	0	0	0	0
1994	215	0	0	0	0	202	114	202	114
1995	196	142	0	0	0	318	169	318	169
1996	163	466	0	0	0	594	303	594	303
1997	216	0	0	0	0	198	120	198	120
1998	120	0	0	0	0	113	77	113	77
1999	255	225	324	0	0	455	223	779	523
2000	24	49	0	0	0	73	35	73	35
2001	191	144	0	0	0	316	190	316	190
2002	168	130	0	0	0	279	135	279	135
2003	99	0	0	0	0	92	70	92	70
2004	41	50	184	0	0	91	54	275	264
2005	75	0	0	0	0	68	61	68	61
2006	155	0	0	407	0	142	99	549	341
2007	225	0	0	0	0	225	107	225	107
2008	189	0	0	0	0	189	118	189	118
2009	320	155	0	0	0	476	197	476	197
2010	309	0	0	0	0	309	95	309	95
2011	562	0	0	0	0	562	248	562	248
2012	371	0	0	0	0	371	216	371	216
2013	212	0	133	0	0	212	113	344	189
1992-2013	nyrs		Avg	SE index	(90%ci)		Growth	(90%ci)	
breeding birds	22		263	36	(204-322)		1.035	(0.990-1.082)	
total birds	22		311	42	(241-380)		1.046	(0.998-1.095)	
2004-2013									
breeding birds	10		265	52	(180-349)		1.186	(1.088-1.293)	
total birds	10		337	50	(254-420)		1.101	(0.990-1.224)	

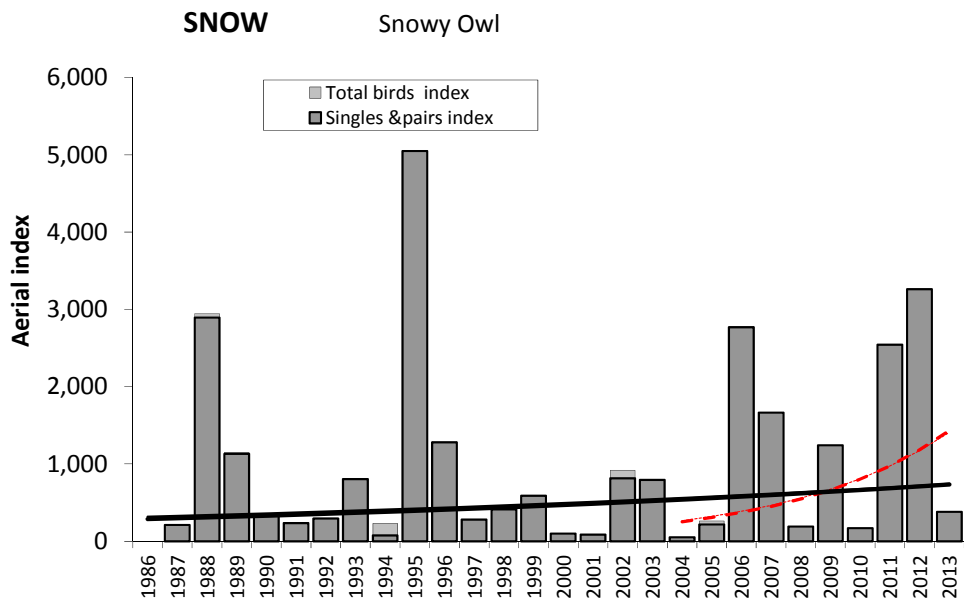


## SEOW Short-eared Owl



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

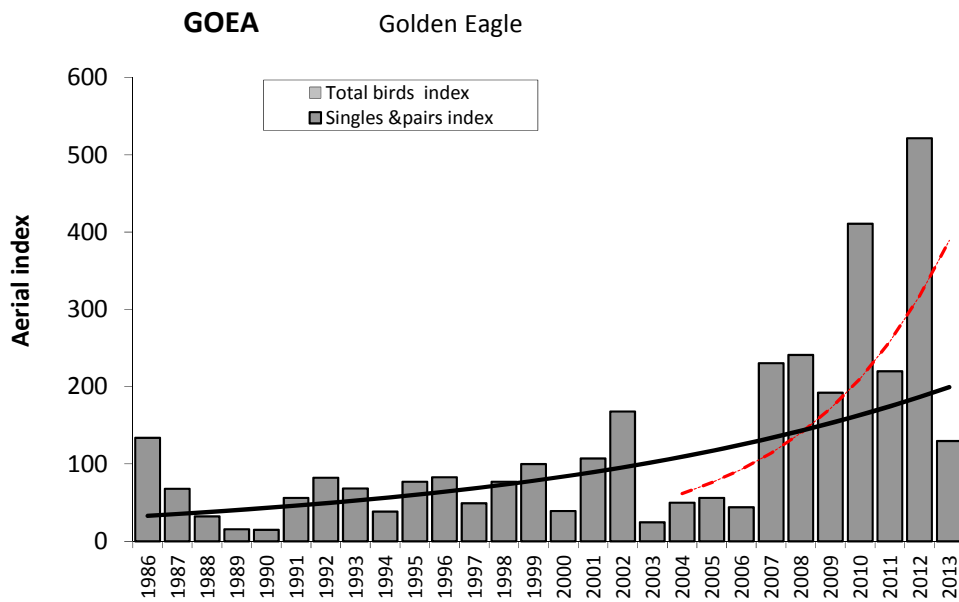
Year	n singles index	2*n pairs index	birds in groups 3- 5 index	birds in groups 6- 30 index	birds in >30 flocks	Singles &pairs index	SE breeding bird index	Total	
								birds index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992	145	0	0	0	0	145	104	145	104
1993	71	0	0	0	0	71	40	71	40
1994	0	0	0	0	0	0	0	0	0
1995	246	0	0	0	0	246	128	246	128
1996	166	0	0	0	0	166	104	166	104
1997	73	0	0	0	0	73	101	73	101
1998	0	0	0	0	0	0	0	0	0
1999	325	0	0	0	0	325	124	325	124
2000	407	0	0	0	0	407	154	407	154
2001	319	0	0	0	0	319	164	319	164
2002	127	0	0	0	0	127	108	127	108
2003	57	0	0	0	0	57	72	57	72
2004	337	0	0	0	0	337	160	337	160
2005	150	0	0	0	0	150	89	150	89
2006	601	0	0	0	0	601	308	601	308
2007	121	0	0	0	0	121	60	121	60
2008	269	0	0	0	0	269	120	269	120
2009	683	0	0	0	0	683	328	683	328
2010	86	0	0	0	0	86	75	86	75
2011	475	0	0	0	0	475	143	475	143
2012	2237	156	0	0	0	2393	436	2393	436
2013	14	0	0	0	0	14	13	14	13
1992-2013	nyrs		Avg	SE index	(90%ci)		Growth	(90%ci)	
breeding birds	22		321	107	(146-496)		1.089	(1.001-1.184)	
total birds	22		321	107	(146-496)		1.089	(1.001-1.184)	
2004-2013									
breeding birds	10		513	221	(150-876)		0.937	(0.717-1.224)	
total birds	10		513	221	(150-876)		0.937	(0.717-1.224)	



ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Year	n singles index	2*n pairs index	birds in groups 3-5 index	birds in groups 6-30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	0	0	0	0	0	0	0	0	0
1987	211	0	0	0	0	209	104	212	105
1988	2868	54	0	0	0	2895	1082	2946	1084
1989	1073	59	0	0	0	1129	551	1149	555
1990	353	0	0	0	0	348	202	354	203
1991	239	0	0	0	0	236	179	240	180
1992	299	0	0	0	0	295	131	300	132
1993	805	0	0	0	0	805	181	805	181
1994	76	0	0	156	0	76	43	232	155
1995	4822	233	0	0	0	5050	775	5057	775
1996	888	359	0	0	0	1279	497	1293	501
1997	193	73	0	0	0	279	140	281	141
1998	262	126	0	0	0	410	161	414	163
1999	538	52	0	0	0	590	161	590	161
2000	98	0	0	0	0	98	52	98	52
2001	84	0	0	0	0	84	56	84	56
2002	768	50	99	0	0	814	232	918	257
2003	794	0	0	0	0	793	158	795	158
2004	50	0	0	0	0	50	37	50	37
2005	219	0	43	0	0	218	71	262	94
2006	2537	239	0	0	0	2769	524	2778	524
2007	1519	146	0	0	0	1665	464	1665	464
2008	190	0	0	0	0	190	124	190	124
2009	1241	0	0	0	0	1241	328	1241	328
2010	167	0	0	0	0	167	64	167	64
2011	2544	0	0	0	0	2544	792	2544	792
2012	3090	170	0	0	0	3261	590	3261	590
2013	327	53	0	0	0	380	164	380	164

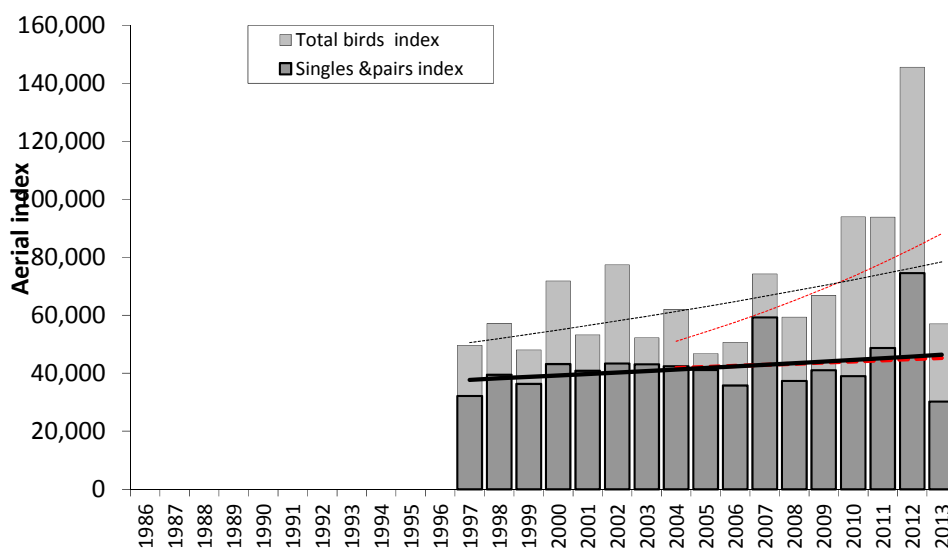
	1986-2013	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	995	233	(611-1,380)	1.035	(0.982-1.091)	
total birds	28	1,011	233	(627-1,394)	1.032	(0.981-1.086)	
<b>2004-2013</b>							
breeding birds	10	1,248	391	(605-1,891)	1.212	(0.937-1.569)	
total birds	10	1,254	390	(612-1,895)	1.203	(0.930-1.555)	



Year	n singles index	2*n pairs index	birds in groups 3-5 index	birds in groups 6-30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds index	SE total birds index
1986	134	0	0	0	0	134	48	134	48
1987	68	0	0	0	0	68	29	68	29
1988	32	0	0	0	0	32	21	32	21
1989	16	0	0	0	0	16	13	16	13
1990	15	0	0	0	0	15	12	15	12
1991	56	0	0	0	0	56	26	56	26
1992	82	0	0	0	0	82	32	82	32
1993	68	0	0	0	0	68	29	68	29
1994	38	0	0	0	0	38	26	38	26
1995	77	0	0	0	0	77	37	77	37
1996	83	0	0	0	0	83	39	83	39
1997	49	0	0	0	0	49	28	49	28
1998	77	0	0	0	0	77	36	77	36
1999	100	0	0	0	0	100	75	100	75
2000	39	0	0	0	0	39	26	39	26
2001	91	16	0	0	0	107	46	107	46
2002	168	0	0	0	0	168	70	168	70
2003	24	0	0	0	0	24	13	24	13
2004	50	0	0	0	0	50	34	50	34
2005	56	0	0	0	0	56	51	56	51
2006	44	0	0	0	0	44	26	44	26
2007	230	0	0	0	0	230	103	230	103
2008	241	0	0	0	0	241	84	241	84
2009	192	0	0	0	0	192	115	192	115
2010	411	0	0	0	0	411	143	411	143
2011	220	0	0	0	0	220	113	220	113
2012	437	84	0	0	0	522	183	522	183
2013	102	27	0	0	0	130	75	130	75

	1986-2013	nyrs	Avg	SE index	(90%ci)	Growth	(90%ci)
breeding birds	28	28	119	22	(82-156)	1.069	(1.040-1.099)
total birds	28	28	119	22	(82-156)	1.069	(1.040-1.099)
<b>2004-2013</b>							
breeding birds	10	10	210	50	(128-291)	1.227	(1.090-1.382)
total birds	10	10	210	50	(128-291)	1.227	(1.090-1.382)

## UNSB Shorebird spp

ACP aerial index, 57336 km<sup>2</sup>, combined NSE and ACP data

Left Front observer only

Year	n singles index	2*n pairs index	birds in groups 3-5 index	birds in groups 6-30 index	birds in flocks >30 index	Singles & pairs index	SE breeding bird index	Total birds	
								index	SE total birds index
1986									
1987									
1988									
1989									
1990									
1991									
1992									
1993									
1994									
1995									
1996									
1997	12504	19188	10106	8437	0	<b>32135</b>	2004	<b>49645</b>	5065
1998	17341	21554	11993	7939	0	<b>39472</b>	3795	<b>57146</b>	6318
1999	15456	21015	10571	4148	0	<b>36368</b>	3408	<b>48110</b>	5716
2000	16760	25989	20494	9044	0	<b>43192</b>	2779	<b>71911</b>	6923
2001	19883	20744	11061	5271	0	<b>40918</b>	3387	<b>53299</b>	4759
2002	16457	26394	16078	20995	0	<b>43386</b>	3392	<b>77405</b>	8247
2003	22665	18946	8758	3882	0	<b>43084</b>	3308	<b>52257</b>	4281
2004	20002	21607	12972	6976	1992	<b>42424</b>	3412	<b>62044</b>	5678
2005	16787	23835	6323	3100	0	<b>41183</b>	3896	<b>46777</b>	5087
2006	13514	22575	9375	8566	0	<b>35773</b>	3232	<b>50733</b>	6841
2007	28315	30980	8009	6976	0	<b>59294</b>	5077	<b>74280</b>	7148
2008	15935	21414	12021	2529	7527	<b>37349</b>	2863	<b>59426</b>	9169
2009	17405	23691	13506	11321	986	<b>41095</b>	3697	<b>66908</b>	8388
2010	18068	20926	14643	24138	16213	<b>38994</b>	4719	<b>93988</b>	18577
2011	19875	28916	14184	19187	11784	<b>48791</b>	4200	<b>93946</b>	13046
2012	27747	46811	29955	35579	5563	<b>74559</b>	6478	<b>145656</b>	16131
2013	12906	17322	14869	11995	0	<b>30228</b>	2935	<b>57092</b>	6358
1992-2013	nyrs	Avg	SE index	(90%ci)		Growth		(90%ci)	
breeding birds	17	<b>42,838</b>	2,532	(38,672-47,004)		<b>1.013</b>		(0.996-1.030)	
total birds	17	<b>68,272</b>	6,006	(58,391-78,152)		<b>1.034</b>		(1.013-1.056)	
2004-2013	nyrs	Avg	SE index	(90%ci)		Growth		(90%ci)	
breeding birds	10	<b>44,969</b>	4,119	(38,194-51,745)		<b>1.009</b>		(0.960-1.061)	
total birds	10	<b>75,085</b>	9,366	(59,678-90,491)		<b>1.070</b>		(1.014-1.128)	

Table 1. Summary for the most recent 10 years, 2004–2013, of average abundance and trend of waterbird populations indexed by observations along aerial transects sampling 57,336 km<sup>2</sup> of tundra wetlands on the Arctic Coastal Plain, Alaska. Species are arranged in descending order of the observed total abundance index.

Data from the last 10 years, 2004–2013			Breeding bird population index:					Total birds population index:				
sppn	species	nyrs	Average breeding birds index	SE index	(90%ci)	Growth Rate	(90%ci)	Average total birds index	SE index	(90%ci)	Growth Rate	(90%ci)
WFGO	White-fronted Goose	10	112,550	13,203	(90,832-134,269)	1.134	(1.092-1.178)	200,764	20,970	(166,268-235,260)	1.101	(1.055-1.149)
UNSB	Shorebird spp	10	44,969	4,119	(38,194-51,745)	1.009	(0.960-1.061)	75,085	9,366	(59,678-90,491)	1.070	(1.014-1.128)
NOPI	Northern Pintail	10	47,961	4,455	(40,632-55,289)	1.013	(0.955-1.074)	60,846	5,547	(51,722-69,970)	1.026	(0.972-1.084)
LTDU	Long-tailed Duck	10	44,147	2,542	(39,965-48,328)	1.037	(1.009-1.065)	48,579	3,233	(43,260-53,898)	1.048	(1.019-1.078)
PALO	Pacific Loon	10	33,093	1,934	(29,912-36,274)	1.017	(0.984-1.051)	33,838	1,935	(30,655-37,021)	1.014	(0.982-1.048)
SNGO	Snow Goose	10	3,963	1,301	(1,823-6,102)	1.280	(1.046-1.566)	23,206	6,305	(12,834-33,578)	1.265	(0.979-1.633)
ARTE	Arctic Tern	10	18,729	630	(17,693-19,766)	0.995	(0.975-1.015)	21,279	713	(20,106-22,452)	1.001	(0.981-1.021)
GLGU	Glaucous Gull	10	15,073	714	(13,897-16,248)	1.027	(1.002-1.053)	20,619	1,586	(18,010-23,228)	1.049	(1.014-1.085)
KIEI	King Eider	10	19,579	664	(18,486-20,672)	1.012	(0.991-1.033)	20,519	397	(19,866-21,172)	1.012	(1.003-1.022)
SCAU	Scaup spp	10	15,274	1,301	(13,135-17,414)	1.039	(0.990-1.091)	18,503	1,771	(15,591-21,416)	1.046	(0.993-1.102)
SWAN	Swan spp	10	12,149	753	(10,911-13,387)	1.067	(1.049-1.085)	13,380	1,014	(11,712-15,049)	1.082	(1.058-1.106)
BLBR	Black Brant	10	6,029	687	(4,899-7,158)	1.030	(0.959-1.106)	13,148	1,310	(10,992-15,303)	1.003	(0.952-1.056)
SAGU	Sabine's Gull	10	8,549	566	(7,618-9,481)	1.071	(1.051-1.091)	12,678	1,062	(10,931-14,424)	1.077	(1.048-1.107)
CAGO	Canada Goose	10	5,654	1,023	(3,971-7,336)	1.079	(0.982-1.186)	12,565	2,330	(8,731-16,398)	0.974	(0.867-1.095)
JAEG	Jaeger spp	10	9,463	934	(7,927-11,000)	1.003	(0.952-1.058)	9,500	924	(7,980-11,020)	1.010	(0.956-1.067)
SPEI	Spectacled Eider	10	6,698	401	(6,039-7,357)	1.000	(0.963-1.037)	7,091	627	(6,060-8,122)	0.984	(0.937-1.033)
WWSC	White-winged Scoter	10	5,036	1,330	(2,849-7,223)	1.308	(1.182-1.448)	6,845	2,052	(3,469-10,221)	1.373	(1.236-1.525)
RTLO	Red-throated Loon	10	2,489	184	(2,187-2,791)	0.945	(0.914-0.977)	2,563	188	(2,254-2,871)	0.940	(0.912-0.970)
YBLO	Yellow-billed Loon	10	2,148	198	(1,822-2,474)	1.053	(1.009-1.098)	2,199	199	(1,873-2,526)	1.058	(1.016-1.101)
RBME	Red-breasted Merganser	10	1,294	114	(1,106-1,482)	1.071	(1.024-1.119)	1,296	121	(1,096-1,495)	1.078	(1.031-1.127)
SNOW	Snowy Owl	10	1,248	391	(605-1,891)	1.212	(0.937-1.569)	1,254	390	(612-1,895)	1.203	(0.930-1.555)
COEI	Common Eider	10	450	128	(239-661)	1.106	(0.984-1.242)	888	369	(281-1,495)	1.214	(1.024-1.440)
AMWI	American Wigeon	10	495	175	(207-783)	1.361	(1.123-1.648)	573	168	(296-850)	1.205	(0.976-1.489)
SEOW	Short-eared Owl	10	513	221	(150-876)	0.937	(0.717-1.224)	513	221	(150-876)	0.937	(0.717-1.224)
AGWT	Green-winged Teal	10	439	79	(308-569)	1.008	(0.891-1.140)	433	80	(300-565)	1.018	(0.898-1.154)
SACR	Sandhill Crane	10	292	52	(207-377)	1.006	(0.915-1.105)	412	72	(294-531)	1.019	(0.923-1.125)
MALL	Mallard	10	361	92	(209-513)	1.233	(1.079-1.411)	393	106	(220-567)	1.224	(1.052-1.423)
CORA	Common Raven	10	265	52	(180-349)	1.186	(1.088-1.293)	337	50	(254-420)	1.101	(0.990-1.224)
NSHO	Northern Shoveler	10	288	106	(113-464)	0.977	(0.764-1.250)	288	106	(113-464)	0.977	(0.764-1.250)
BLSC	Black Scoter	10	176	47	(100-253)	0.989	(0.822-1.190)	226	103	(56-395)	1.068	(0.849-1.342)
GOEA	Golden Eagle	10	210	50	(128-291)	1.227	(1.090-1.382)	210	50	(128-291)	1.227	(1.090-1.382)
STEI	Steller's Eider	10	175	54	(85-264)	1.064	(0.835-1.355)	175	54	(85-264)	1.064	(0.835-1.355)
RNGR	Red-necked Grebe	10	67	18	(36-97)	0.949	(0.814-1.106)	101	40	(35-167)	0.955	(0.785-1.161)
SUSC	Surf Scoter	10	60	53	(0-146)	1.113	(0.870-1.425)	62	52	(0-148)	1.055	(0.872-1.276)

Table 2. Summary for 28 years, 1986-2013, of average abundance and trend of waterbird populations indexed by observations along aerial transects sampling 57,336 km<sup>2</sup> of tundra wetlands on the Arctic Coastal Plain, Alaska. Species are arranged in descending order of the total observed abundance index.

Data from 28 years, 1986-2013			Breeding bird population index:					Total birds population index:				
sppn	species	nyrs	Average breeding birds index	SE index	(90%ci)	Growth Rate	(90%ci)	Average total birds index	SE index	(90%ci)	Growth Rate	(90%ci)
WFGO	White-fronted Goose	28	63,098	8,597	(48,956-77,240)	1.079	(1.070-1.089)	133,056	12,407	(112,647-153,466)	1.043	(1.033-1.054)
UNSB	Shorebird spp	17	42,838	2,532	(38,672-47,004)	1.013	(0.996-1.030)	68,272	6,006	(58,391-78,152)	1.034	(1.013-1.056)
NOPI	Northern Pintail	28	45,133	2,556	(40,928-49,337)	1.015	(1.002-1.027)	64,400	3,444	(58,735-70,066)	0.998	(0.985-1.010)
LTDU	Long-tailed Duck	28	44,118	1,396	(41,822-46,414)	1.000	(0.994-1.007)	52,001	1,863	(48,937-55,066)	0.991	(0.984-0.998)
PALO	Pacific Loon	28	31,667	942	(30,118-33,216)	1.005	(0.999-1.011)	32,444	985	(30,824-34,065)	1.005	(0.999-1.011)
ARTE	Arctic Tern	22	15,805	733	(14,598-17,011)	1.026	(1.018-1.033)	18,745	740	(17,529-19,962)	1.020	(1.013-1.027)
GLGU	Glaucous Gull	22	12,824	574	(11,880-13,769)	1.029	(1.022-1.036)	17,895	1,027	(16,206-19,585)	1.023	(1.011-1.036)
KIEI	King Eider	28	14,448	1,011	(12,785-16,111)	1.045	(1.031-1.059)	15,922	909	(14,428-17,417)	1.030	(1.021-1.040)
SCAU	Scaup spp	28	12,223	786	(10,929-13,516)	1.025	(1.012-1.037)	15,648	991	(14,017-17,278)	1.015	(1.002-1.028)
CAGO	Canada Goose	28	3,453	501	(2,628-4,278)	1.071	(1.054-1.090)	10,675	1,211	(8,683-12,667)	1.017	(0.991-1.045)
SAGU	Sabine's Gull	22	6,742	471	(5,968-7,516)	1.039	(1.024-1.054)	9,602	822	(8,249-10,955)	1.050	(1.032-1.068)
SWAN	Swan spp	28	8,762	598	(7,779-9,745)	1.040	(1.035-1.046)	9,321	735	(8,112-10,530)	1.046	(1.040-1.053)
SNGO	Snow Goose	28	1,521	570	(584-2,458)	1.259	(1.219-1.300)	8,955	2,990	(4,036-13,873)	1.252	(1.199-1.308)
JAEG	Jaeger spp	28	8,495	477	(7,709-9,280)	1.006	(0.995-1.018)	8,745	472	(7,968-9,521)	1.002	(0.992-1.014)
BLBR	Black Brant	28	3,497	455	(2,749-4,245)	1.075	(1.055-1.095)	7,593	1,020	(5,916-9,270)	1.092	(1.069-1.116)
SPEI	Spectacled Eider	22	6,951	323	(6,419-7,483)	0.998	(0.986-1.010)	7,201	363	(6,603-7,799)	0.997	(0.983-1.010)
RTLO	Red-throated Loon	28	2,882	180	(2,586-3,178)	0.994	(0.981-1.007)	3,007	198	(2,681-3,334)	0.992	(0.979-1.006)
WWSC	White-winged Scoter	28	2,143	625	(1,115-3,171)	1.161	(1.127-1.196)	2,985	906	(1,496-4,475)	1.138	(1.105-1.173)
YBLO	Yellow-billed Loon	28	1,858	99	(1,696-2,021)	1.016	(1.006-1.026)	1,950	103	(1,781-2,120)	1.014	(1.003-1.025)
SNOW	Snowy Owl	28	995	233	(611-1,380)	1.035	(0.982-1.091)	1,011	233	(627-1,394)	1.032	(0.981-1.086)
RBME	Red-breasted Merganser	28	878	85	(739-1,018)	1.047	(1.032-1.062)	830	92	(680-981)	1.062	(1.047-1.078)
AGWT	Green-winged Teal	28	664	128	(453-875)	0.959	(0.922-0.998)	640	122	(440-841)	0.962	(0.925-1.001)
AMWI	American Wigeon	28	476	82	(341-612)	1.001	(0.959-1.045)	605	86	(464-746)	1.002	(0.963-1.042)
COEI	Common Eider	22	316	67	(206-426)	1.061	(1.008-1.117)	594	182	(294-894)	1.046	(0.977-1.120)
MALL	Mallard	28	417	76	(292-543)	1.015	(0.974-1.058)	451	76	(326-575)	0.997	(0.959-1.036)
NSHO	Northern Shoveler	28	335	81	(201-469)	0.986	(0.933-1.041)	371	86	(230-513)	0.972	(0.921-1.026)
SEOW	Short-eared Owl	22	321	107	(146-496)	1.089	(1.001-1.184)	321	107	(146-496)	1.089	(1.001-1.184)
CORA	Common Raven	22	263	36	(204-322)	1.035	(0.990-1.082)	311	42	(241-380)	1.046	(0.998-1.095)
BLSC	Black Scoter	28	275	42	(206-344)	0.956	(0.918-0.997)	301	53	(214-387)	0.952	(0.907-0.999)
SACR	Sandhill Crane	28	193	27	(149-237)	1.066	(1.041-1.091)	247	38	(185-309)	1.076	(1.048-1.104)
STEI	Steller's Eider	25	172	33	(118-226)	0.997	(0.916-1.086)	213	47	(136-291)	0.992	(0.908-1.084)
RNGR	Red-necked Grebe	28	111	27	(66-156)	0.964	(0.920-1.010)	136	34	(81-191)	0.967	(0.919-1.017)
GOEA	Golden Eagle	28	119	22	(82-156)	1.069	(1.040-1.099)	119	22	(82-156)	1.069	(1.040-1.099)
SUSC	Surf Scoter	28	32	19	(0-63)	1.020	(0.980-1.061)	88	26	(46-130)	1.004	(0.961-1.049)

