

International Annual Bewick's Swan Age Count, 15-16 December 2018



Dear coordinators and observers,

In the weekend of 15-16 December 2018, The 37th annual Bewick's Swan age count is held. We kindly invite you to participate in these international Bewick's swan age and/or brood count. It will be held in the Baltic States (Estonia, Latvia & Lithuania), Poland, Germany, Denmark, The Netherlands, Belgium, France and the United Kingdom and even more countries along the flyway. It is the 37th age count in a row, and its data are important to understand the dynamics in population changes which have happened over the past decades. Below you find some more backgrounds and the latest results of the previous counts.



**It looks a better breeding season for the Bewick's swans... but real counting is necessary;
picture by Paul Knolle, Nths**

Purpose of age counts

For conservation purposes, the Swan Specialist Group monitors the population of Bewick's Swans in detail. This is very important because the population is historically small, and trend analyses show that the population is in decline. In fact the population is down from almost 30,000 birds in 1995 to nowadays around 20,000 birds in 2015.

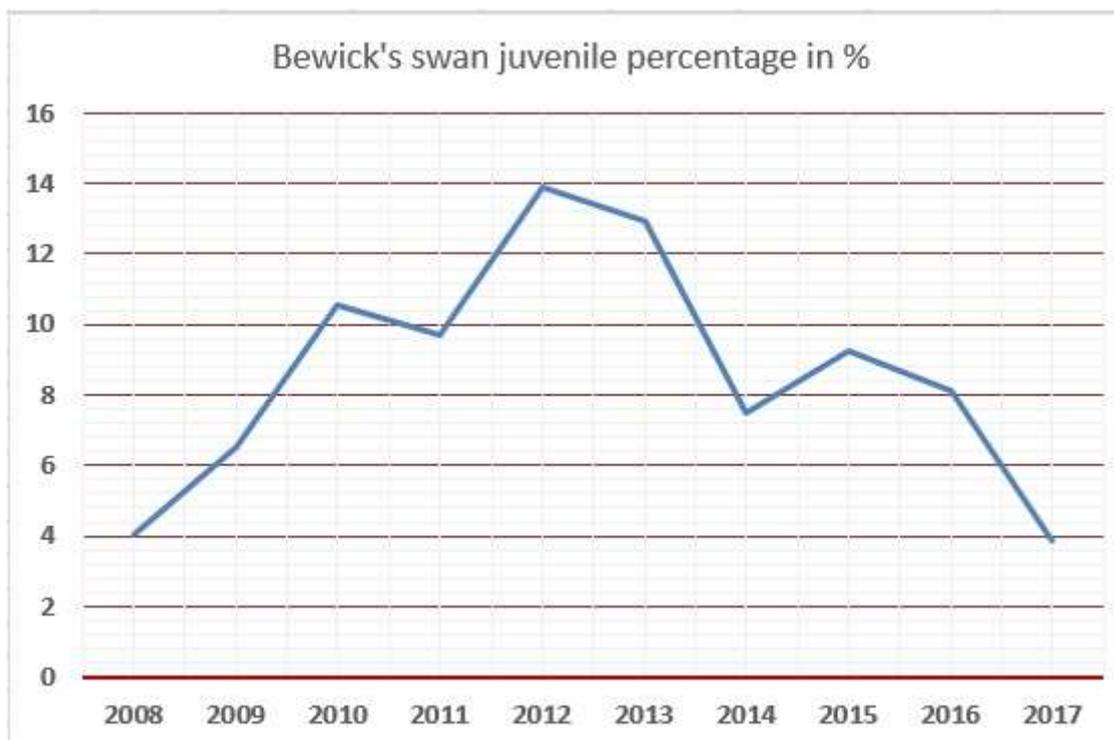
Age counts are an important tool to understand such fluctuations in population size. Together with data on mortality (by means of ring studies), it is possible to make a population model and relate

fluctuations with e.g. weather conditions in the Arctic breeding grounds, food conditions on stop-over and wintering sites etc. to get a trigger on the reasons of the decline of the NW-European Bewick's swans population. Several analyses have been carried out so far, see e.g. <http://www.swansg.org/projects/1711-2/> for an overview.

Every five years the population size is monitored, and each year after the birds have arrived to the wintering grounds in NW-Europe, we monitor breeding success. This has been ongoing since 1982 and shows that there is strong variation in the number of cygnets raised each year, as well as in the number of successful breeding pairs. The next complete international census will be held in January 2020. **The next age count is due in the weekend of 15-16 December 2018, in conjunction with the mid-monthly waterbird count in many countries.**

Breeding success – long term

Breeding success over the past 10 years has been rather poor, on average 8,7% juvenile birds were found in the population. As a result - with an adult mortality loss between 12 to 15% per year - the population size has declined since 1995, although the latest information from the annual five-year-count in 2015 showed a little increase up to 20,000 birds.



Results from 2016 & 2017 age counts

In December 2016 and 2017, respectively almost 11,000 and more than 8,000 Bewick's Swans were aged (see table below). The average cygnet percentage in 2016 and 2017 was 8.2% and 3.9% respectively, not enough to compensate for annual mortality. In both years, many flocks were checked for cygnet percentages and brood sizes. The sample size was very good in 2016, some 60% of the population was checked. In 2017 over 40% of the population was checked. We think that

especially in the very mild winter during the count period in early December 2017, still lots of swans were in Poland and maybe other countries further east like Lithuania and Latvia. There was no coordinated effort in counting in these countries in 2017. But hopefully coverage can be improved in the next years, and this will be even more important as swans are tending to winter further east.

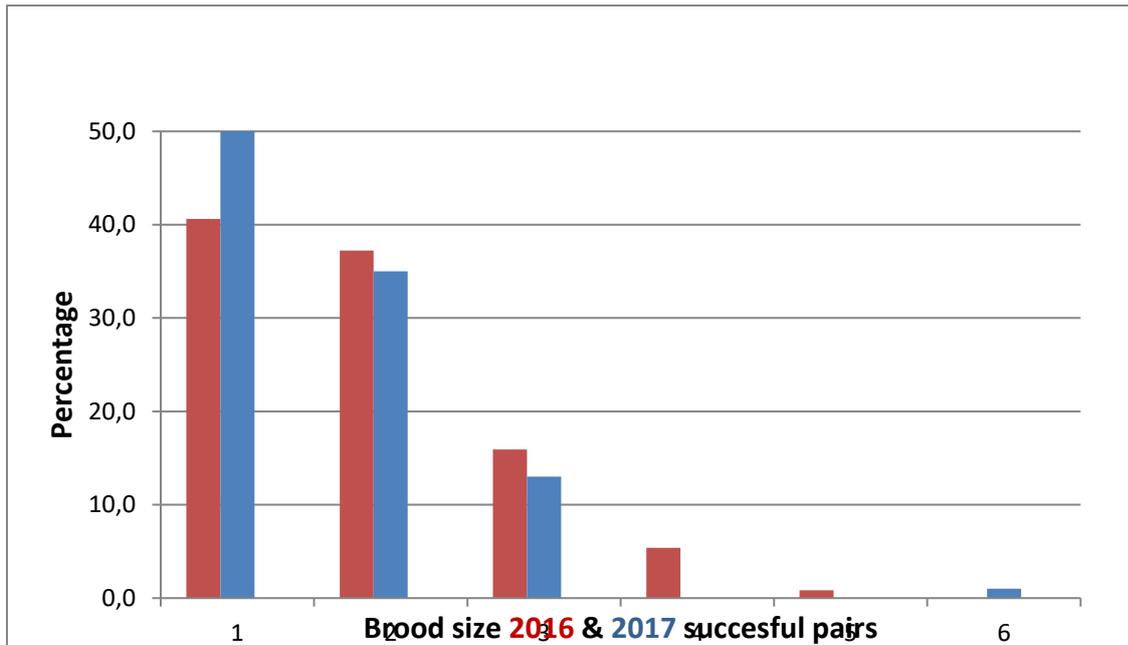
Overview of age counts per country around 5-6 December 20016 and 9-10 December 2017.

Country	Total number of birds 2016	Total number of birds 2017	Number of adults 2016	Number of adults 2017	Number of cygnets 2016	Number of cygnets 2017	Cygnets percentage 2016	Cygnets percentage 2017
France	346	148	321	142	25	6	7.2	4.1
Belgium	84	88	81	85	20	3	19.8	3.4
Netherlands	5924	2067	5566	2015	323	52	5.5	2.5
UK	1271	213	1093	192	178	21	14.0	9.9
Germany	3349	5498	2998	5269	351	229	10.5	4.2
Denmark	storm	350	storm	333	storm	17	storm	4.9
Estonia	6	0	3	0	3	0	50.0	0
TOTAL	10997	8383	10062	8034	900	326	8.2	3.9

In addition to the cygnet percentage, many observers also report on brood size, i.e. the number of cygnets in a single brood. In 2016 we got information from 352 successful pairs from 6 countries, which is a rather small sample (in some countries counts were performed under poor weather conditions with snow and ice). Average brood size was 1.87 cygnets per pair, and over 20% of the pairs raised 3 or 4 cygnets, which was not too bad (see figure below).

In 2017 again a rather small sample on brood size was collected. In total we got information from 7 countries from 174 successful pairs. Average brood size was 1.61 cygnet per pair and over 80% of the pairs just raised 1 or 2 cygnets. Pairs with 4 and 5 cygnets were not seen and only one pair had 6 cygnets.

Overall 2016 and 2017 were not the best years for the population with 2017 being the worst breeding season since 2007... So upcoming year can only be better!



Brood size (number of pairs with 1 cygnet, 2 cygnets, etc) in 2016 and 2017.

Breeding success 2018, a preview

During the summer, we got information from the Head of the Nenetski Zapovednik (Pechora Delta) in Russia, that Bewick's Swans had nested more successfully than in 2017 and had larger broods. This was confirmed by the team from the Wildfowl and Wetlands Trust who visited the moulting and breeding area's in cooperation with the Russian scientists. Here is a link to the website where you can see some footage and pictures from that expedition:

http://nao24.tilda.ws/feathers?fbclid=IwAR2basjG2Eukpcfy1TcEq-phjD_ceX5rR-U2gp7GJBwtvWAIGS2kITuXGfi

The team of WWT and Russian scientists, managed to mark 74 birds, including 60 Bewick's Swans with leg rings, ten of which had been ringed before. Nine Mute Swans were also ringed as well as five Whooper Swans.

The first signs of Bewick's Swans arriving to the autumn stop-overs in Estonia in October during the excursion with the 6th International Swan Symposium at lake Peipsi were not bad. Also in Latvia and Lithuania juvenile percentages in October and November were pretty good. And the first large flocks which are now observed at the wintering grounds in Germany, Denmark and the Netherlands confirm that it will be a better year for juveniles so far then last year. With juvenile percentages up to 25% in smaller flocks with some times families with 3, 4 or 5 cygnets are reported. As always the juvenile percentage is higher in flocks feeding at maize fields, where even a family of 7 was reported this week in western Germany, when this big family flew totally apart to the roosting place. So, not bad at all for so far. But, given such variation in age ratio between feeding habitat, it is important to have a coordinated count in all relevant countries within the flyway, to get the whole picture of the breeding season We hope that many observers along the flyway are able to help to count the juveniles and the number of cygnets per successful pair.



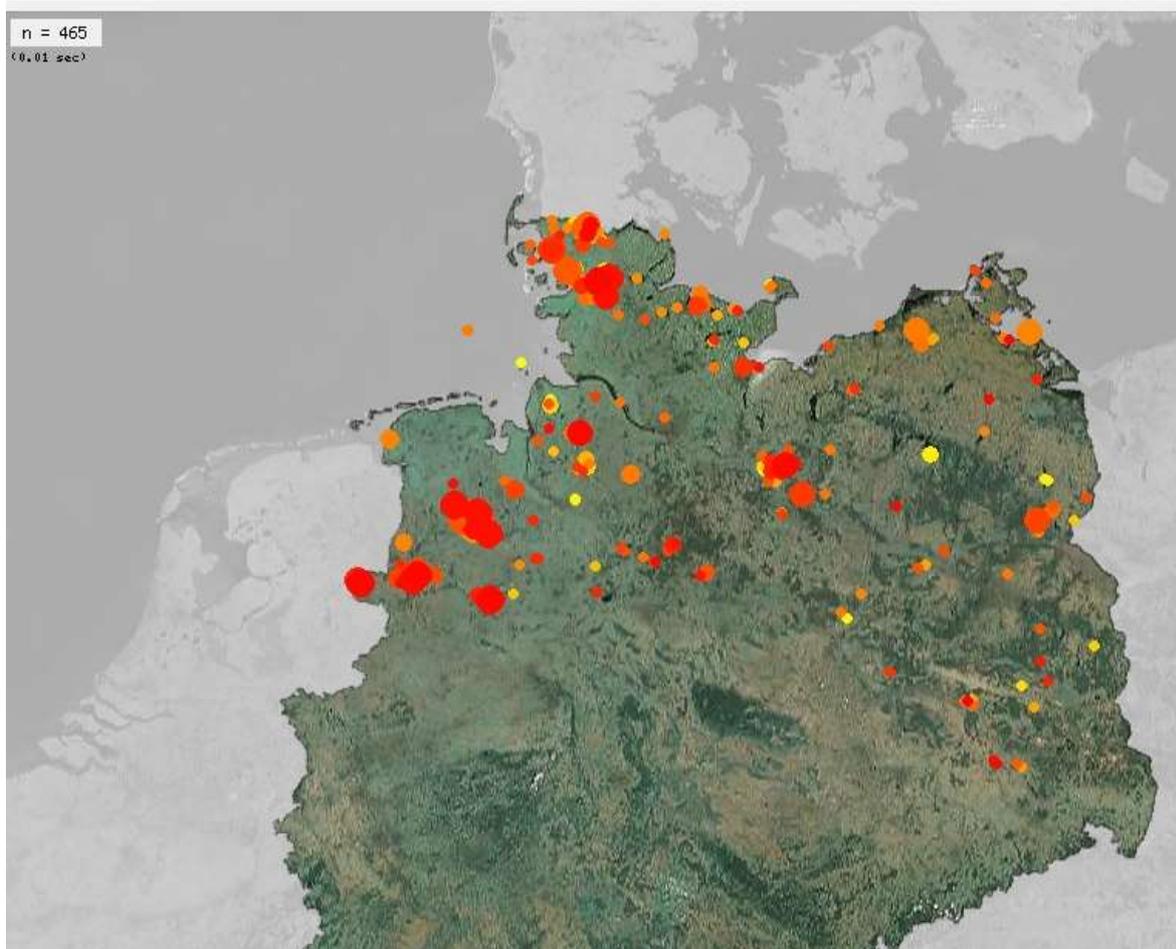
Family on migration – picture Fred Visscher, Nths

Autumn migration and current weather conditions

Until late November, numbers in the Netherlands were only slowly increasing, but at the moment there are not more than approximate 2,000 birds mainly on lakes and very low numbers on arable land. Not many birds had come to the UK wintering grounds yet, it was one of the latest arrivals ever in Slimbridge, UK. Wintering conditions along the flyway in more eastern countries as Estonia, Latvia, Lithuania and Poland are mild so far. This can change rapidly of course, although the long term weather forecast for these countries until half of December does not predict a change in severe wintering conditions. Large flocks are reported from northern and northwest Germany, just like last years (see map below). In the north-western part of Germany, many birds are feeding on maize stubble. Also in Denmark there are unusually high numbers at the moment, according to the Danish website DOF.



In Belgium Bewick's swans are very scarce at the moment, while normally around 200 birds are wintering in this country by the end of November, beginning of December. In France scattered small flocks between 20 up to 60 birds are on lakes in the north, feeding on potamogeton and chara species. So many birds must be still on their way to NW-Europe. But this also stresses the importance to have all countries on board during the age count from 15-16 December.



Distribution Bewick's Swans in Germany from November – snapshot DDA website (www.ornitho.de)

Change in coordination of the age count

During the last International Swan Symposium, Jan Beekman decided to step down as coordinator for the age counts in the NW-European Bewick's Swan population. Jan Beekman did a major job in organising the counts, which originally started in 1982 in the Netherlands. And he got involved in Bewick's swan research at that time. Since the late eighties he was coordinating the age counts, mainly in the Netherlands because at that time it was the main wintering country together with the United Kingdom. During the last years more and more countries joined the age count, which was especially needed, because the change in wintering areas is still going on. Jan, thanks a lot for coordinating the age counts for more than 25 years!

Also a thanks a lot in advance, for all observers who will take part in the age count in the weekend of *15-16 December*, which are highly appreciated. We are looking forward to the reports of field trips from individual observers, or from regional and national coordinators. We hope also for good weather conditions during the count and a high cygnet percentage is needed for the population! Please send your results to the address below, or to regional or your national coordinator. But most off all success in the field and enjoy the swans!

With all best wishes,

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International age counts in Bewick's Swans – what to record?

- Collect data for each flock separately, and count adult and juvenile birds individually
- Record the number of cygnets within one brood (so number of cygnets obviously attached to one pair). This is usually well visible, as swans do not tend to feed in such dense flocks as most geese do. But it does take a little attention to get family bonds well separated.
- Record the habitat the birds were seen, also with crop type when observed on arable land. Often this is maize, but also harvest remains of sugar beet or potatoes occur, as does winter cereals. Many birds also feed on grassland, or on aquatic vegetation on ponds and lakes.





Ringling schemes on Bewick's swans and where to report

Leg rings are used by the Wildfowl and Wetlands Trust and these birds can be reported by email at colourmarkedswans@twwt.org.uk.

These rings can be green, white or yellow with a 3 or 4 (only on white rings with 3 numbers and ending with a T) digit code on it. The green rings have a white inscription, the yellow and white rings have a black inscription and are numeric and alphanumeric.

Yellow neck collars and white(GPS) neck collars with a code ending on a E or an A, are ringed by the Dutch Institute of Ecology(NIOO) and can be reported at the [website geese.org](http://www.geese.org).

White neck collars with 3 numbers and a X, can be send to the Belgium ring coordinator, Didier Vangeluwe by email: dvangeluwe@naturalsciences.be





Website for the Swan Specialist Group

Lots of information about swans, and especially also Bewick's Swans, can be found on the newly created website: <http://www.swansg.org/> For observers, people interested in swans from all species, governmental and other organisations, scientists and everyone involved in the protection of swans, lots of information can be found at this newly website. It is also possible to download the important **Bewick's swan Action Plan** from the African Eurasian Waterbird Agreement (AWEA).

Moreover, you can find information and a report about the latest *6th International Swan Symposium* in Estonia, very well organised by Leho Luigujoe from the University of Tartu and his team. There is information about expeditions, where to download scientific reports, colour rings important information about studies and plans in monitoring, about events, and so on.

So please visit the website for lots of information.

