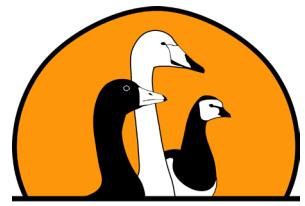




INTERNATIONAL SWAN CENSUS IDENTIFICATION AND AGEING GUIDE



GSMP

Age Assessment Guide

Why do we carry out age assessments?

The aim of age assessments in the International Swan Census is to determine the annual reproductive success of Whooper and Bewick's Swans at their wintering sites. Age assessments of swans comprise two measures of annual reproductive success (or productivity): the proportion of young (first-winter) birds in non-breeding flocks and the average brood size.

Due to differences in plumage characteristics, swans in their first winter are usually easily separated from adult birds, at least for part of the non-breeding season. Young swans tend to remain in family units with their parents throughout their first winter, and thus it is also possible to measure the number of young produced by successful breeding pairs. Counters, therefore, record the number of young birds present in a flock and also identify family groups making a note of the number of young within each family.

Methodology

We ask that age assessments are carried out at all of your ISC sites if possible.

Age assessments are usually undertaken during the day at feeding sites, when the birds are less clumped and family groups tend to be more obvious. However, counts may be undertaken at roosting sites during your ISC count.

Equipment

Binoculars (useful for quickly scanning a flock but not always suitable for carrying out age assessments), telescope and tripod (or window-clamp if using the scope from a car), notepad and pencil, tally counter(s). A digital voice recorder can also be useful when surveying large flocks.

Recording forms

Preferably, age assessment records should be submitted online in your International Swan Census data entry, either through GSMP Online or through the pop-up after submitting your January WeBS count in WeBS Online. However paper forms are available to download from www.bto.org/gsmp-isc and can be posted back to the GMSP Office.

Count conditions

In order to gain an accurate age assessment, it is important to carry out the counts in good conditions. Weather can be a constraining factor, with cloud, heavy rain or fog potentially making accurate counts impossible. Windy, rough and wet conditions also tend to cause birds to hunker down which can make ageing more difficult. High levels of disturbance can also reduce count accuracy if the birds are highly unsettled: be careful not to disturb the birds when approaching or leaving the site. If conditions are poor, it is worth considering undertaking the count on another day.

For coordinated assessments, if a survey is not possible on the pre-determined count dates then assessments made two days either side of these dates will be included in the data analysis

Information required

The following data should be recorded during an age assessment:

- Species
- An estimate of the total number of birds in the flock
- Total number of birds aged (adults plus young)
- Total number of young
- Brood sizes (number of each brood)

Carrying out an age assessment

Before carrying out your age assessment, you first need to find a suitable vantage point. Choose a location from which you can see the majority of the flock. Usually you need to be within a few hundred metres of the flock to gain the best view, though this varies with weather conditions. However, be careful not to get too close as this can make it difficult to scan through the flock effectively, plus you may also inadvertently 'spook' the birds causing them to flush. Also, try to position yourself so the sun is behind you to help reduce glare.

Once settled in a suitable location, record the basic information about your visit: date, time, habitat type(s) the swans are using, and an estimate of the flock size. It is not usually possible to assess the proportion of young and brood sizes at the same time. Separate scans of the flock are normally required to obtain these data. Age ratio data should be collected first, then if time and conditions allow, move on to collecting brood size data.

Be aware that if you are able to record some brood sizes during your age count, you need to avoid recording the same broods more than once when you scan through the flock again: for example, large broods may be easier to detect and are, therefore, more likely to be counted again.

Recording the proportion of young in a flock

Start your scan at one corner edge of the flock and then systematically work your way through the birds. Try to identify the age of as many individuals as possible using the distinguishing characteristics. Do not spend too long trying to age a bird, as you may lose track of where you have got to in the flock. If a bird is obscured from view, wait just a few seconds to see if it emerges before moving on to the next bird. Whilst scanning through the flock, we suggest using a tally counter to record either the number of birds aged or the number of adults whilst keeping a tally of the number of young in your head. Alternatively, you may prefer to use a digital voice recorder or a combination of the two. Either of these methods is particularly useful if you are a lone observer; if there are two of you, you may find it easier if one of you scans the flock whilst the other records the data.

Recording brood size

To undertake a count of brood sizes i.e. the number of young in a family unit, you will first need to identify the individual families. Whilst some families may be obvious, you may need to watch other potential groups for a while to be certain that they are indeed a family. The following behaviours will help you identify a family unit:

- Families tend to stick close together, with the cygnets following the adults around.
- Often a family acts as a unit, altering their behaviour at the same or similar time; for example, the family stops feeding and sits down or they all walk to a puddle to drink. Watching for such changes in behaviour may reveal families within a flock.
- There are usually two adults accompanying a brood; although a brood can be recorded if only one adult is present.
- One of the adults may be 'on guard' (i.e. alert).
- Family units tend to defend territories as a group. When watching a family, be aware that young birds may have wandered away from the rest of the group, particularly in the case of larger broods. You may need to watch a family for several minutes before you are certain that you have noted all the young birds. Once you are confident that you have identified a family unit, record the number of young in the brood.
- It is important that brood sizes are recorded in a systematic way so that certain brood sizes are not over-recorded e.g. it is more likely that you will detect large broods and miss the smaller ones.

Whooper Swan

Identification

Whooper and Bewick's Swans are superficially very similar; adults of both species are pure white with a black and yellow bill. Whooper Swans however are much larger, with a much longer, curved neck and the yellow on the bill much more extensive, coming to a point past the nostrils.

Whooper Swan numbers have increased dramatically in recent years and birds can be found across the UK, with the highest numbers in Scotland, northern England and in the Cambridgeshire Fens, but they can be encountered elsewhere.

Adult

Yellow and black bill, with the yellow coming to a point



Bewick's Swan

Identification

Bewick's and Whooper Swans are superficially very similar; adults of both species are pure white with a black and yellow bill. Bewick's Swans however are smaller and are more goose-like in their proportions, with a shorter neck. The yellow on the bill of Bewick's Swans is much less extensive and very variable and more rounded than on Whooper, usually stopping before the nostrils.

Bewick's Swans are becoming increasingly scarce in the UK, now found at just a handful of regular sites in southern England, mostly in Kent and Gloucestershire. Care must be taken with identification away from these areas.

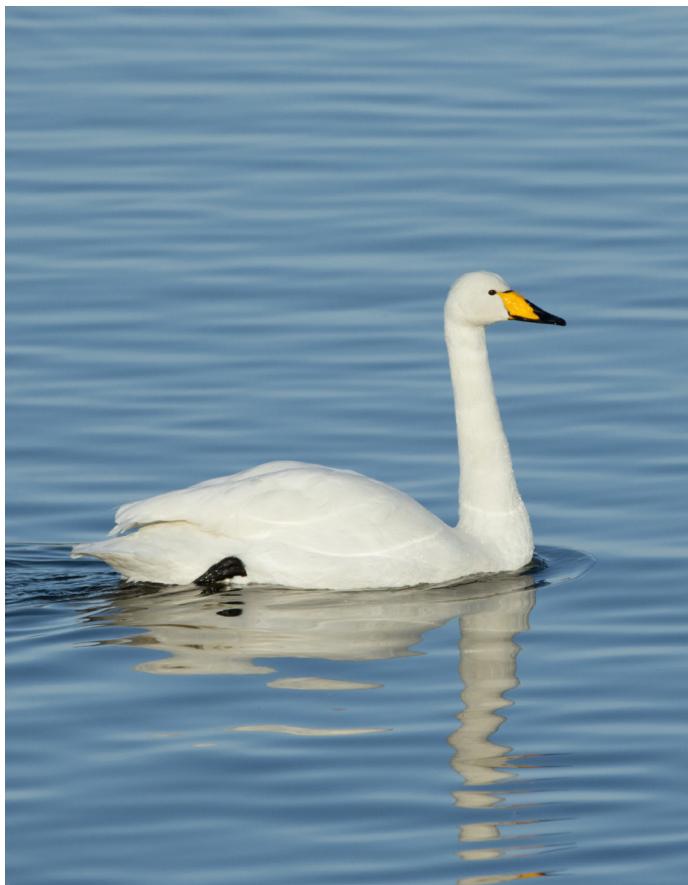
Adult

Yellow and black bill, the yellow more rounded than a Whooper Swan



Distinguishing between Whooper and Bewick's Swans (adults)

Whooper Swan



Bewick's Swan



- 'W' Shape on Bill (W for Whooper): More yellow on bill than Bewick's, with a black point in the middle
- Longer neck than Bewick's
- Larger body than Bewick's
- 'B' shape on bill (B for Bewick's): Less yellow bill than Whooper, with a curved yellow patch
- Smaller, more goose-like proportions

Ageing Whooper and Bewick's Swans

Cygnets (first-winter birds) of both Whooper and Bewick's Swans have greyer plumage than adults, and pink or white bills, rather than yellow. First-winter birds will retain much of their greyish plumage throughout the winter; however the bills of some individuals may start to show yellow towards the end of the season.

In both species, second-winter (yearling) individuals may retain juvenile plumage, particularly in Bewick's Swan. However, their bills will have changed to be yellow and black, though some Bewick's Swans may still show spots of pink. Second-winter birds should be classed as adults during an age assessment.



First-winter Whooper Swan

Pink rather than yellow on bill

Greyer plumage



A family party of a pair of adult Whooper Swans with 3 1st year winter birds (1 brood of 3)

Entering your ISC counts into GSMP Online

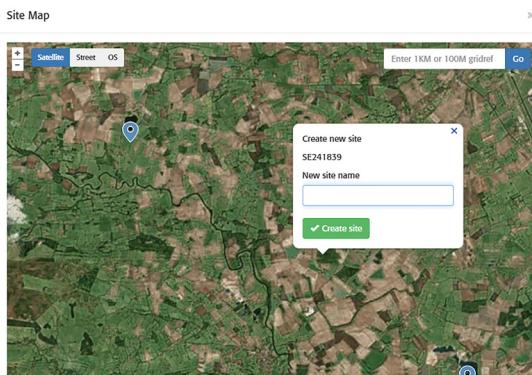
Submitting ISC Counts

To enter ISC counts, you can either click on the name of the site in the list of your allocated ISC sites on the Data Home page, or under 'Your Options' in 'International Swan Census'. Please note this form will be available to open from December 15th 2025-February 15th 2026.



The screenshot shows the 'Your Options' page with a green header. Under 'International Swan Census', there are links for 'Icelandic-breeding Goose Census', 'Age Assessment', and 'View My Details'. The 'View My Details' link is underlined, indicating it is the active section.

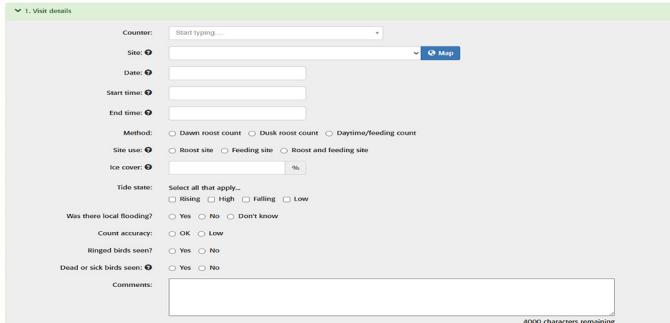
To submit your ISC count data, under 'Your options', click on 'International Swan Census'. First you will be asked to specify the site you were surveying by either using the dropdown list or the map of existing sites. The dropdown list will show the site(s) you are allocated. If you want to submit data to a new site that is not on the vacant site map (e.g. a feeding flock you saw during your count in a field), you can create a new site by clicking on the globe next to site and zooming in to plot your site location. You can then name it and proceed. Please note you cannot plot a new site within a WeBS boundary/ISC site that is already being counted. When zooming into the map, you will be able to see proximity to current sites.



The date of the count must also be recorded and, the approximate start and end time, ice cover, whether the count was carried out as a Dawn Roost Count, Dusk Roost Count or Daytime/feeding Count and (for coastal sites) tidal state. Please also indicate site use, if ringed birds were seen and if any dead/sick birds were seen using the key provided. Please note that BTO doesn't deal with the colour ringing of Whooper and Bewick's Swans, however if you do see colour ringed swans, please select 'yes' and input your details into www.ring.ac. Importantly, if you feel that your count

did not accurately represent the true number of birds present, please record a count accuracy of 'Low' and tell us why this was. There is also a facility to record extra details in the comments box (e.g. additional counters, disturbance, etc). Once you have completed this page, please scroll down to '2. Counts'.

Enter Count - International Swan Census



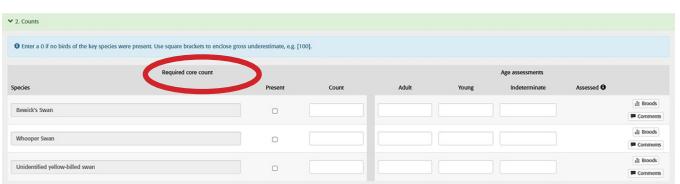
The screenshot shows the 'Enter Count' form for the International Swan Census. It has a green header '1. Visit details'. The form includes fields for 'Counter' (dropdown), 'Site' (dropdown), 'Date' (input), 'Start time' (input), 'End time' (input), 'Method' (radio buttons for Dawn/Dusk/Daytime/Feeding), 'Site use' (radio buttons for Roost/Feeding/Both), 'Ice cover' (dropdown), 'Tide state' (checkboxes for Rising, High, Falling, Low), 'Was there local flooding?' (checkboxes for Yes, No, Don't know), 'Count accuracy' (checkboxes for OK, Low), 'Ringed birds seen?' (checkboxes for Yes, No), 'Dead or sick birds seen?' (checkboxes for Yes, No), and a 'Comments' text area with a character limit of 4000. A note at the bottom says '4000 characters remaining'.

2. Counts

The two key species to record for the ISC is Whooper and Bewick's Swans. Please enter counts for these two species, and if no birds of either species were present you can put a 0 count. If you are unsure whether it is Bewick's or Whooper, you can mark it as 'Unidentified yellow-billed swan', however we urge you to try to specify the species if you can. If you feel your count was a significant underestimate of the numbers you would have been able to count under ideal conditions then please use [square brackets] to show this.

To record your count, simply enter the count of each species you saw in the relevant box. If you recorded a species but were unable to make a count for some reason (e.g. insufficient time, birds flushed before you could count them, etc.) then simply tick the 'Present' box to indicate that species was present but not fully counted. Please make a count wherever possible.

When you type a number, the 'Present' box is automatically ticked for you. If you accidentally enter a count next to a species that was not present, please delete the number and untick the 'Present' box.

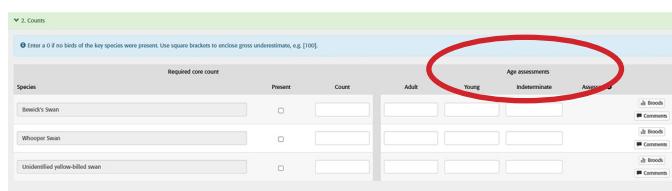


The screenshot shows the '2. Counts' section of the form. It has a green header '2. Counts'. A note at the top says 'Enter a 0 if no birds of the key species were present. Use square brackets to enclose gross underestimate, e.g. [100].'. The table has columns for 'Species', 'Present' (checkbox), 'Count' (input), 'Age assessments' (checkboxes for Adult, Young, Indeterminate, Assessed), and 'Comments' (checkboxes for Broods, Comments). The first row is for 'Bewick's Swan' and the second for 'Whooper Swan'. A third row for 'Unidentified yellow-billed swan' is partially visible. A red circle highlights the 'Present' checkbox for the first row.

Age Assessments

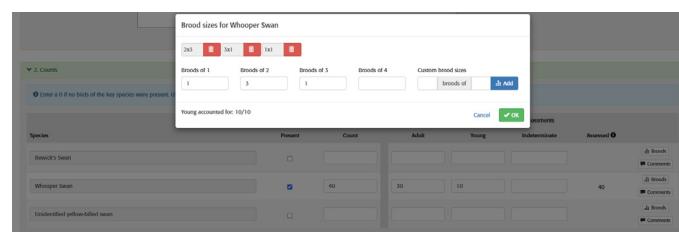
When carrying out your ISC counts, we encourage you to record age assessments if possible, recording broods as well as number of adults and juveniles assessed.

This can be input in section 2 in the righthand side of the table labelled 'Age assessments.' Here, input the number of adults you assessed along with the number of young you assessed (note: this doesn't have to add up to your total count, you can age assess however many you choose as long as this number doesn't exceed your count). Once you enter in these two boxes, the right hand column labelled 'Assessed' will automatically calculate how many swans you assessed for ages. You can then fill in the remaining that you didn't age assess in the indeterminate box.



Species	Present	Count	Age assessments		
			Adult	Young	Indeterminate
Bewick's Swan					
Whooper Swan					
Unidentified yellow-billed swan					

After filling in adults and young, you can also add broods by clicking the 'broods' icon on the right. This will come up with a pop-up window where you can enter the number of broods of each size, and if there are any broods larger than 4, these can be added in the custom brood sizes box. Then click 'Ok'. If you didn't do age assessments, you can leave the age assessments columns blank.



Brood sizes for Whooper Swan						
2x1	1x2	1x3	1x4			
1	3	1	1			
Broods of 1		Broods of 2		Broods of 3	Broods of 4	Custom brood sizes
1	3	1	1			

Young accounted for: 10/10

Cancel OK

Comments

Species	Present	Count	Assessed		
			Adult	Young	Indeterminate
Bewick's Swan					
Whooper Swan		40	30	10	40
Unidentified yellow-billed swan					

3. Habitat

Finally, there is an optional tab at the bottom of the form to input habitat that recorded swans were using. Specify the number of each species you are recording for habitat use, as well as the habitat type they were found on. Simply click on the drop down and select the habitat type you recorded. You can then enter a count of each species using this habitat. If you want to record separate flocks on the same habitat, you can do this by adding another row of the same habitat and inputting different counts of species to indicate flocks. If only one habitat is recorded, leave the species counts blank.



Habitat	Dowick's Swan	Whooper Swan	Unidentified yellow-billed swan
<input type="button" value="Delete"/>			
<input type="button" value="Add new"/>			

Once you have entered all your data, click 'Save' at the bottom right of the page. If any mandatory information has been omitted, these will be highlighted as an error in red at the top of the page. These must be addressed before the count can be submitted otherwise your count will not be saved.

If you are satisfied you have recorded everything correctly, then the count has been submitted on the online database and you can close the page, or alternatively return to the GSMP 'Data Home' if you have more data to input for a different site.

Viewing & editing past records

From the 'Contributions' section of the Data Home page, you can go back to view any records you have previously entered into GSMP Online or make any corrections by pressing 'View/Edit' or you can delete the entire visit using the 'Delete' button.

The BTO keeps a track of all edited or deleted data in case of mishaps.

When to submit your counts

We recommend that you submit your counts as soon as possible after your count so that any queries can be dealt with whilst the count is still fresh in your memory. As the WeBS recording year runs from July to June, your ISC counts should be submitted promptly before the end of September of each year. However, since this count takes place in January, we would assume most will submit data well before September. We cannot guarantee that any data submitted after the end of September will be included in the WeBS/GSMP annual report.

Entering your ISC counts as a WeBS counter

If you are a WeBS counter, you can enter your counts without having to create a GSMP Online account. Simply enter your usual January Core Count in WeBS Online, and if you enter a Bewick's or Whooper Swan, once submitting your form, click on the 'Pass data to International Swan Census' button in orange.



Enter count - WeBS Core Count

Count Submitted

Thank you for entering your count data. A summary of the species submitted is shown below.

• This visit contained records of swan species that would be really useful if included in the International Swan Census. By clicking on the button below, relevant visit data and records of swan species will be copied across to a data entry form for the International Swan Census. You may be prompted for additional details. Registration is not necessary, though would be welcomed if you wish to participate formally.

GSMP