

FACTS ABOUT BIRDS

Background information for teachers

What is a bird?

Birds are vertebrates (they have a backbone) and they produce eggs that hatch into young. Birds are characterised by feathers, a beak with no teeth and forelimbs which are modified into wings (although not all birds can fly). They have a lightweight but strong skeleton.

Classes of birds

Classification of birds is organised into 23 orders of birds, then subdivided as follows: families/genus/species

For everyday purposes, birds in Britain are normally described as:-

Birds of prey – eagles, buzzards, kestrels and owls etc which feed on other birds, mammals, insects or carrion

Waterfowl – ducks, geese, moorhens etc

Waders – lapwings, curlews, redshanks etc

Garden birds – a vast number such as all the finches, tits, blackbirds, robins etc which live both near man and in woodland and agricultural areas

Sea birds – gulls, gannets, guillemots etc.

Birds in Nidderdale

Nidderdale provides a variety of habitats which attract different species of birds.

- We have a wide range of garden, field and woodland birds but not those like yellowhammers which prefer arable farming area.
- We have a range of birds which live on or close to the moors – small birds like meadow pipits and waders like lapwings and curlews which come to breed in Nidderdale in the summer
- We have water birds like mallard duck and greylag geese which like the reservoirs
- Summer visitors include warblers in woodland, ring ouzels and wheatears on the moors and hirundines like swallows and martins. Another famous summer visitor is the cuckoo.
- Winter visitors include redwings and fieldfares which come from Scandinavia for our milder winters.

A separate list of the most common species seen in Nidderdale is included in this Module.

Breeding Birds

Nests in trees made of collected material such as twigs, feathers, wool, spiders' webs etc., are perceived as the traditional place that birds rear their young.

However, different bird species have different strategies for nesting according to the habitat they live in and the availability of nesting sites and materials and the dangers they face such as predation by animals or other birds. Some birds nest in tree holes which they either find or excavate, some nest on the ground either in a nest or a scrape, some nest in burrows which they either find or excavate, and some have no nests at all and just lay their eggs where they think it safest.

Breeding birds are protected by law and it is an offence to disturb breeding birds or collect eggs. Knocking down an active nest or preventing birds access to their eggs or young is illegal and attracts potentially high penalties.

Because of loss of habitat there are many programmes seeking to help birds breed successfully by providing artificial sites. These range from a simple bird box to large nesting banks such as the one recently constructed for sand martins at Gouthwaite Reservoir.

Getting children involved in bird box provision is a way of allowing them to learn about the needs of different species; monitoring the use of the boxes provides opportunities to learn not just about bird survival, but to introduce children to scientific principles about how to measure and record.

Bird diet and feeding

Many birds live on seeds and plant material while others favour insects, although some will also take mammals or other birds. Loss of habitat and suitable food is impacting on many birds, particularly those which live in agricultural areas, either because of less seed and grain being available or because of the reduction in insects. Private gardens have become very important in providing suitable habitats for birds, particularly those whose populations have fallen dramatically such as the House sparrow. Food, water and cover in gardens can provide the things that birds need to help them survive and breed successfully.

Bird feeding in gardens is now a popular activity and one which particularly helps birds during difficult periods, for example in bad weather, or at the end of winter when the natural food is running low. Feeding birds regularly attracts them to gardens, and provides opportunities to see a variety of species and to note how they behave. Learning what different species of birds need in the way of food is a good way to learn about habitats and why birds choose to live in certain places.

Migration

Migration is the regular seasonal movement of birds between breeding and wintering grounds. Many birds come to Britain in the summer to breed because of an appropriate habitat providing good food and shelter. Well known summer migrants are the Swallow and the Cuckoo. A few birds also come during the winter, simply to escape the harsher conditions in their normal breeding grounds, for example Redwings and Fieldfares which come from Scandinavia.

The timing of migration seems to be controlled primarily by changes in day length. Migrating birds navigate using the position of the sun and stars, the earth's magnetic field, and probably also mental maps. It is a phenomenon which is not yet fully understood. The strength and stamina required by many birds is astonishing. For example the arctic tern holds the long-distance migration record for birds, travelling between Arctic breeding grounds and the Antarctic each year, a round trip of many thousands of miles.

Migration is inherently dangerous, with high mortality rates. This can result from natural causes, such as if the bird has not managed to reach the required weight and fitness to make the journey successfully, or birds can be predated by other birds or animals. Severe weather conditions can result in death for migrating birds, and human hunting activities are also responsible for a high level of mortality amongst some species. Climate change is also impacting as some areas are drying out reducing stop-over opportunities for migrating birds.

Conservation status

Birds native to Britain are placed on one of three lists – Red, Amber or Green – depending on the results from an assessment of the population status.

The criteria used to assess population are:

Red List status

- * Populations that are globally threatened
- * Populations that have declined rapidly in numbers or range in recent years
- * Populations that have declined historically (i.e. between 1800 and 1996) and not shown a substantial recent recovery.

Amber List Status

- * Species with unfavourable conservation status across Europe
- * Populations whose numbers or range have declined moderately in recent years
- * Species with internationally important populations (i.e. a large percentage of the European population is found in the UK)
- * Localised species (i.e. only found in a few sites across the UK)
- * Rare breeders (i.e. species with low numbers of breeding pairs)
- * Populations that have declined historically and shown a substantial recent recovery

Green List status

- * Species which meet none of the above criteria.