

BLOCK 1



HOW TO BE A GOOD BIRDWATCHER



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For ages birds have been the objects of our interests due to many different reasons. They are all around us, they have the ability to fly and they enrich our lives with their singing and chirping. They delight and impress us with their richly coloured plumage, their flying ability, or with the way they gather their food and build their nests. These traits and also their great activity and mobility have always encouraged people to observe birds' lives and behaviours. Birds are one of the biggest vertebrate groups, made up of circa 10 thousand species, distributed among all the continents. Thanks to the fact that birds are warm-blooded and have the ability of thermo-regulation, they are able to inhabit very different places climatically on Earth, showing incredible adaptive skills.

Birds are the most frequently observed and studied vertebrate group. This is undertaken both by professional scientists and by groups of amateurs, the so-called birdwatchers. Time showed that these seemingly unimportant studies became the basis of ecology and ethology.

Pinpointing birds' characteristics and assigning them to this particular vertebrate group should not bring any difficulties. Evolving forelimbs into wings, the presence of plumage that almost covers a bird's entire body, keratin beak that covers a bird's jaw and replaces teeth, are all traits visible with the naked eye and typical for all birds. Nevertheless, it is important to note that even though many of these traits are common among all birds, there still is a huge variety of modifications in this particular group of animals. This is reflected by their adaptations to different environments, behaviours and ways of gathering food. A good example that illustrates this diversity is a bird's beak, which not only is used to gather food but also to prepare it, for instance by removing a seed's hard coat or a calcium shell; bone crushing; ripping soft tissues

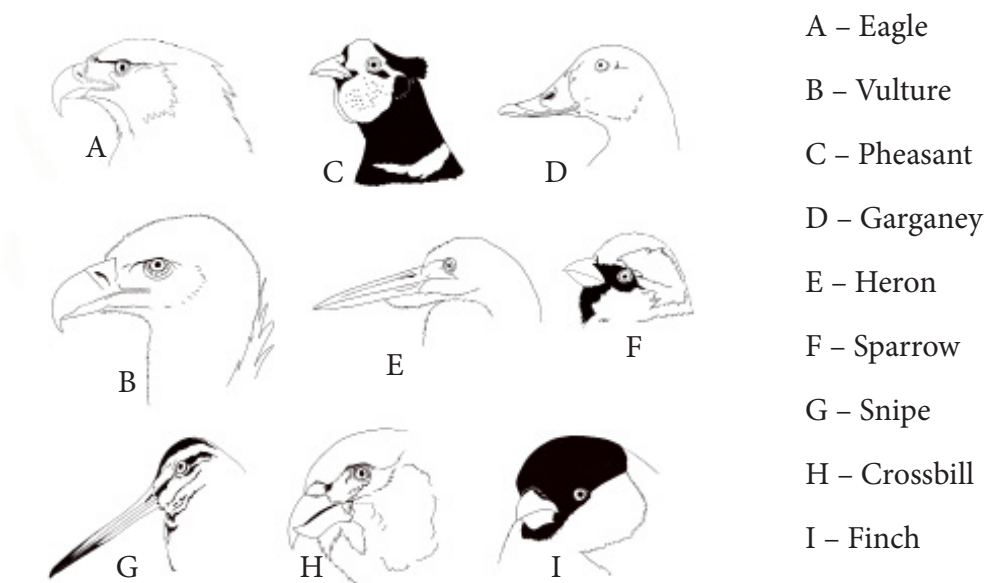


Figure 1: Examples of different structures of a bird's beak



apart etc. How specific these adaptations of beak type to food type can be, can be observed in crossbill's beak (Figure 1) that is perfect for taking out seeds from a cone. Inserting the beak between a cone's scales and twisting its head, it can widen them and extract the seed. Birds' hind limbs are as diverse as beaks. In water-birds, hind limbs function as a swimming limb and are equipped with additional structures that enlarge their surface area (Figure 1 – webbing, goose); in birds of prey hind limbs have a function in obtaining food, they can be clawed and are used not only for catching and holding the prey but also for ripping it apart (Figure 2 – claws, eagle owl). Two opposable pairs of fingers in woodpeckers make it easy for them to climb tree trunks. In flightless birds, like ostriches or emus, hind limbs are their main and highly efficient locomotive organs (Figure 3 – ostrich). A running ostrich can reach 70 km/h.



FIG. 1. THE EAGLE OWL'S FOOT.
SOURCE: PIXABAY



FIG. 2. GOOSE FOOT.
SOURCE: PIXABAY



FIG. 3. OSTRICH'S FOOT
SOURCE: PIXABAY

WHERE TO FIND BIRDS?

Taking into consideration birds' universality, we can encounter birds almost everywhere. By this we mean both in different climates and in different environments. If we are just starting our adventure with birdwatching, we should begin our search in our closest surrounding. Great places for observations in the city include: city parks, bird feeders, house gardens, suburbs or water tanks. In rural areas observations can be done on farms, fields, meadows or in near-by forests. Birdwatching is a great way of using a child's natural sense of observation and curiosity of the world. It allows to familiarise children with some general rules of nature and to attract their attention to the need of protecting nature. Traits typical for a bird watcher are: first and foremost patience, meticulousness and being systematic. Observations may be restricted to only one outing to the field. Systematic observations may be done too, during which the presence of different species and their behaviours throughout the year will be recorded.

It is important to prepare for birdwatching. A birdwatcher should wear camouflage clothing that is adequate to the weather conditions (unless observations are conducted indoors), should be equipped with a pen or a pencil and a notebook where a note regarding the date, time and



weather (temperature, precipitation, wind etc.) should be made. More advanced birdwatchers can use a pair of binoculars or a telescope. For the beginning such an equipment should be easy to use and it is best to learn how to use it before going out to the field, for instance, by a kindergarten building or a school building. A useful thing to have is a bird atlas. In many available volumes the birds' traits that allow to distinguish one species from another are marked together with the traits allowing to determine the bird's age and sex. If we do not have an atlas while observing, it is good to write down all the traits and behaviours of a bird that later may be helpful to identify its species. The animal's height is important to note (the easiest thing to do is to relate it to a bird with a known size, for example a bird of a sparrow's size, a bird of a pigeon's size) and also the bird's characteristic marking. In the case of markings, it is important to note the observed colours on a sketch. Before going to the field, we can prepare silhouettes of birds in which the colours can be marked.

Meanwhile, we can tell children that a bird's markings are not always colourful: they are often different among sexes, individuals in different ages and they can change throughout the year. A female's colour is most often more modest because of the fact that she incubates eggs and takes care of the young. Such a 'discreet', protective colouration allows a bird to hide from a potential predator (camouflage). Hatchlings of birds that nest in open nests on the ground, for example ptarmigans or lapwings, can also benefit from camouflage, matching their colour with the surrounding environment (mimicry). It is also important to note that camouflage is a commonly used passive defence strategy. Many animal species mimic their surrounding environments with their appearance and colour and finding them can be a great test of the nature-lovers' perception.

Different morphological traits that are important to note while determining the name of a species are the length and shape of a beak, the length of legs and that of a tail. One should also remember where a given bird was observed (on a tree, in a birdfeeder, on the ground, on a roof, on a green belt, etc.) and the way the bird behaves (pecks grain, sits on a branch, walks on a watertank's shore, attacks another individual etc.). In the further determination of a bird's species a very helpful thing is to take a photo of it as long as that bird is not on or near its nest



FIG. 4. MALLARD ON THE NEST
AUTHOR: CEZARY KORKOSZ.



FIG. 5. GROUSE HATCHLING
SOURCE: PIXABAY.



during its mating season.

Apart from observing birds, one can also try tracking the tracks of their presence, meaning footprints, lost feathers, egg shells, traces of feeding or birds' nests or their remains. Each species has their own characteristic limb structure, when their size and shape is considered, and that allows, just like in the case of mammal species, finding out the exact species that left the footprint on snow, wet sand or mud. It is not easy but one strategy that helps with recognising the tracks is making a gypsum imprint of the track, then measuring it and using a key with pictures to identify the owner of the tracks. Based on such an imprint, we can also determine the way the bird moves (jumping, striding), the direction of the movement and if the bird is linked with a water environment (webbing between toes).

Winter is a good time for looking for nests of some species. First and foremost, this is applicable to big birds, such as birds of prey (buzzard, white-tailed eagle), the crow family (crow, rook, magpie) and also some smaller species whose nests are durable and are not destroyed in winter, for instance a song thrush's or a blackbird's nest. Trees, at this time leafless, make the localisation of nests which size, shape and the way it is built (type of material a nest is built from, the presence of a given padding, the way twigs are braided) allow determining the species that built this nest. Descriptions of nests made by pupils are sources that highlight the diverse "building" skills that birds possess.

The way a bird gathers food is also various in different species. Due to this fact, one can try guessing how a bird got to cones, nuts or acorns noticing the shapes of the openings made in hard seed coats or the markings on spruce and fir cones.

The children's love of collecting can be used to create one's own bird specimen collection, for example by collecting egg shells or feathers. If the collections are to be created by children, it is important to remind them to write down the place and the date of finding the specimen and to properly secure it. Delicate egg shells should be dried and placed on a soft mat in containers/boxes with hard walls. They should not be exposed to light so that they would not lose their colour and markings. Feathers, also dried and described, are best to be placed in zip lock bags of a proper size. If feathers are not secured properly, they may be endangered to destruction by clothes moths. That is why before placing feathers in zip lock bags they should be kept in cold temperature or sprayed with anti-moth spray. In the case of the traces of clothes moths appearing, the treatment should be repeated. When collecting egg shells, it is important to tell children about the camouflage colour of eggs that are laid on the ground or the cone-like shape of eggs laid on rock shelves that prevents them from moving.

One should remember about the necessity of abiding by the rules of behaving around birds and, above all, of avoiding flushing out birds and being near nests where there are hatchlings or where the eggs are incubated.







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BirdWatch Ireland is a non-governmental organization with a public benefit status, dealing with the protection of wild birds and the places where they live. The aim of the Society is to preserve the natural heritage for the benefit of present and future generations. BirdWatch Ireland is the Irish partner of the global federation of bird protection societies - BirdLife International.



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