

## Expert sheet

### Kingfisher (*Alcedo atthis*)



#### Physique

The kingfisher has a short, stocky body. It has a short neck and a large head with a ca. 4 cm long, pointed beak. Its body length is about 16 to 18 cm, it weighs about 35 g to 40 g and has a wingspan of about 25 cm. Its feathers on top are blue to turquoise. Except for the white throat, the underneath is reddish brown. Beside each eye there is a brown spot.

#### Habitat & prey

The kingfisher lives in slow-moving or stagnant, clear waters, with a stock of small fish. These can be rivers, streams, lakes and manmade waters such as ponds, ditches, canals and pond systems. Outside the breeding season the kingfisher can even be seen by the sea.

It is important that there are enough perches from which the kingfishers can observe the water for food. Kingfishers feed on fish, aquatic insects and their larvae, small crustaceans and tadpoles. Their method of hunting is burst diving. When they discover possible prey, they plunge headfirst into the water, accelerating with short wing beats.

So that sufficient food is available even in winter, the kingfisher requires waters which do not freeze over completely in winter.

#### Reproduction & nesting

Between February and March kingfishers roam shouting along the water bodies. When they have found a potential partner, extensive pursuit flights take place over the water and sometimes even through the forest. Banks or large root plates of fallen trees with a thick layer of soil serve as breeding places. On a steep wall of mud or firm sand, the bird digs a cave with its beak. The female lays six to eight eggs and incubates them in turns with the male. An awkwardly created nesting hole can be robbed by foxes, weasels, raccoons, rats, mice and moles. The robbers eat not only the eggs and young birds but usually also the breeding bird. Also, any disturbance by humans lasting two-to three-hours or more can cause the loss of a brood, since the adult birds do not dare to return to their young.



#### Threats

The size of the breeding stock is essentially determined by the severity of the winter. Severe winters with prolonged cold spells can lead to drastic regional stock dips (up to 90 percent), since most fish waters freeze. In the past, the kingfisher was heavily hunted by inland fishermen because the feathers were considered desirable jewelry for ladies' hats. Today, kingfishers are under pressure because of the destruction of their habitat, since almost all of Europe's rivers and streams have been expanded or regulated, ponds have been filled and wetlands drained. Partial renaturation has not brought any major improvement.

## **Task list: Green Belt**

1. 4 equally sized groups are formed, one for each of the 4 topics. These groups are considered as the experts for their special topic. After reading their material, 4 new groups are formed, each with at least one expert for each topic. Everybody presents the information on their topic to their new group. The group now thinks about which of these animals could or could not live in the Green Belt and presents arguments supporting their opinion. These group results should be presented and discussed in class, and possibly also summarised as a class opinion. Furthermore it is possible to think about ways of creating individual biospheres to protect and conserve the Green Belt.

### **References:**

Without author (2014): Kingfisher  
<http://en.wikipedia.org/wiki/Kingfisher>

### **Pictures:**

- 1) Trepte, Andreas (2013) Eisvogel  
([http://commons.wikimedia.org/wiki/File:Common\\_Kingfisher\\_Alcedo\\_atthis.jpg](http://commons.wikimedia.org/wiki/File:Common_Kingfisher_Alcedo_atthis.jpg)) (access: 18.02.2014)
- 2) FokusNatur (2012): Eisvogel mit erbeutetem Fisch  
([http://commons.wikimedia.org/wiki/File:Eisvogel\\_mit\\_Beute.jpg](http://commons.wikimedia.org/wiki/File:Eisvogel_mit_Beute.jpg)) (access: 18.02.2014)