

Sexual Selection & Mate Choice



This activity will help you to:

- Distinguish between natural selection and sexual selection
- Understand what is meant by sexual dimorphism
- Discuss the relationship between sexual dimorphism and sexual selection

Natural and Sexual Selection

Evolutionary theory suggests that there are two main mechanisms for the evolution of an animal's characteristics:

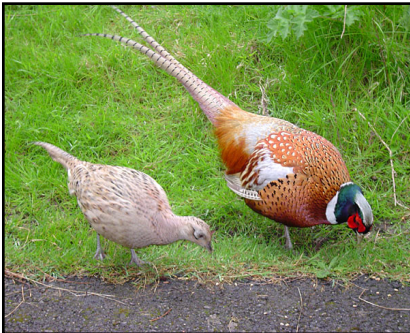
- **Natural selection** (survival of the fittest). This is the process by which animals that are best adapted to their environment (fitness) are more likely to survive.
- **Sexual selection** (reproductive success). This is the process by which animals that are most successful at mating and having offspring are more likely to pass on their genes to the next generation.

It is important to realise that the characteristics that increase an animal's fitness in terms of natural selection are not necessarily those that increase its chances of reproductive success. In some circumstances the characteristics that increase reproductive fitness might actually endanger and organism.

Sexual Dimorphism

Sexual dimorphism means 'a difference in form between the sexes'. It is a term that describes the fact that in many (but not all) species of insect, bird mammal, reptile and so on, the males and females look different. Here are some examples. Label the male and female, and briefly outline the nature of the sexual dimorphism in each.

Pheasant



female

male

Dragonfly



female

male

Sheep



female

male

Looking at these three examples, what seems to be the usual pattern in sexually dimorphic species?

What does this pattern imply about which sex does the competing and which sex does the choosing where it comes to mating and reproduction?

Do you think the same is true of humans? Use examples of human behaviour to illustrate and support your views.