

What did Darwin observe? - Part 1

Darwin saw hundreds of animals and plants on his voyage, he wrote detailed notes for many of the species he saw; recording the species' common name, latin name, where he found it, his observations of its behaviour and how he thought different species may be related to each other.

Scientists classify every species into a group, depending on their similarities and differences between each other. Some of the characteristics of the groups can be seen by just looking at the species.

Look at the ten photographs on the following pages and see if you can classify them into the correct groups and give reasons for your answers. Think carefully, they may not all be as they first appear!

Reptile

Crustacean

Mammal

Amphibian

Bird

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1) Puma



6) Dwarf armadillo or pichi



2) Greater rhea



7) Coconut crab



3) Galapagos marine iguana



8) Platypus



4) Black skimmer



9) Dusky dolphin



5) Darwin's frog



10) Galapagos giant tortoise

What did Darwin observe? - Part 2

Animals are also grouped by other characteristics, such as what they eat, their skeleton, how threatened their species is in the wild, how they are adapted to live in their environment.

Go to the ARKive scrapbook (www.arkive.org/animal-classification) to read about the species and answer the questions below.

- 1.** Look at the ten animals in the photographs, which do you think are invertebrates? Explain your answer.
- 2.** Scientists classify the Galapagos giant tortoises as endangered species. What does the word endangered mean?
- 3.** Some of the Galapagos Islands no longer have Galapagos giant tortoises living on them. From what you have learnt about the Galapagos Islands explain why you think this might be.
- 4.** Many of the islands now have goats living on them, how do you think these may affect the Galapagos giant tortoise populations?
- 5.** The puma is a predator. Explain what 'predator' means, and how the puma is adapted to be a successful predator.
- 6.** The greater rhea is adapted for life on the grassy plains of South America. How is it adapted to avoid being caught and eaten by its predators?

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Groups within groups - Part 1

Whilst examining his specimens, drawings and observations from the voyage, Darwin realised that the five groups of vertebrates shared several common features, the most obvious being a central backbone with dorsal nerve cord. The five groups are Mammals, Birds, Reptiles, Amphibians and Fish.

To Darwin this indicated some kind of evolutionary relationship between the groups. The species within each group also share common features – birds have feathers, wings and lay eggs for example. Darwin's observations of the characteristics that groups of species share, and those which are different, helped him to form his theory of evolution.

Use the ARKive website to put together a scrapbook of 10 species that show the range of animals in your vertebrate group. Investigate, using the photographs, videos and information, what you think are the most important shared characteristics of your animal group.

Groups within groups - Part 2

Try to identify how each of the animals you have chosen are adapted to their way of life, how do they feed, what do they eat, where do they live, their behaviour etc.

Present your findings to the other groups and see if you all agree.

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