



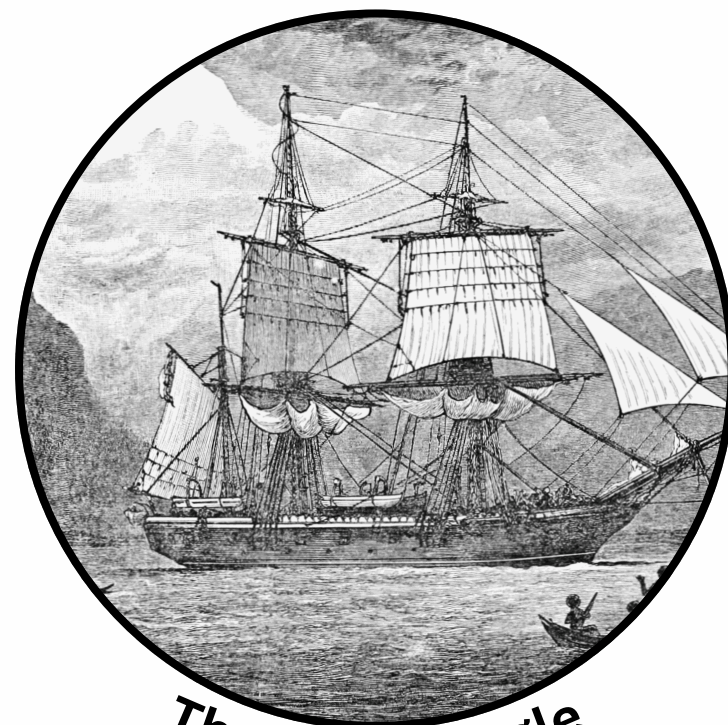
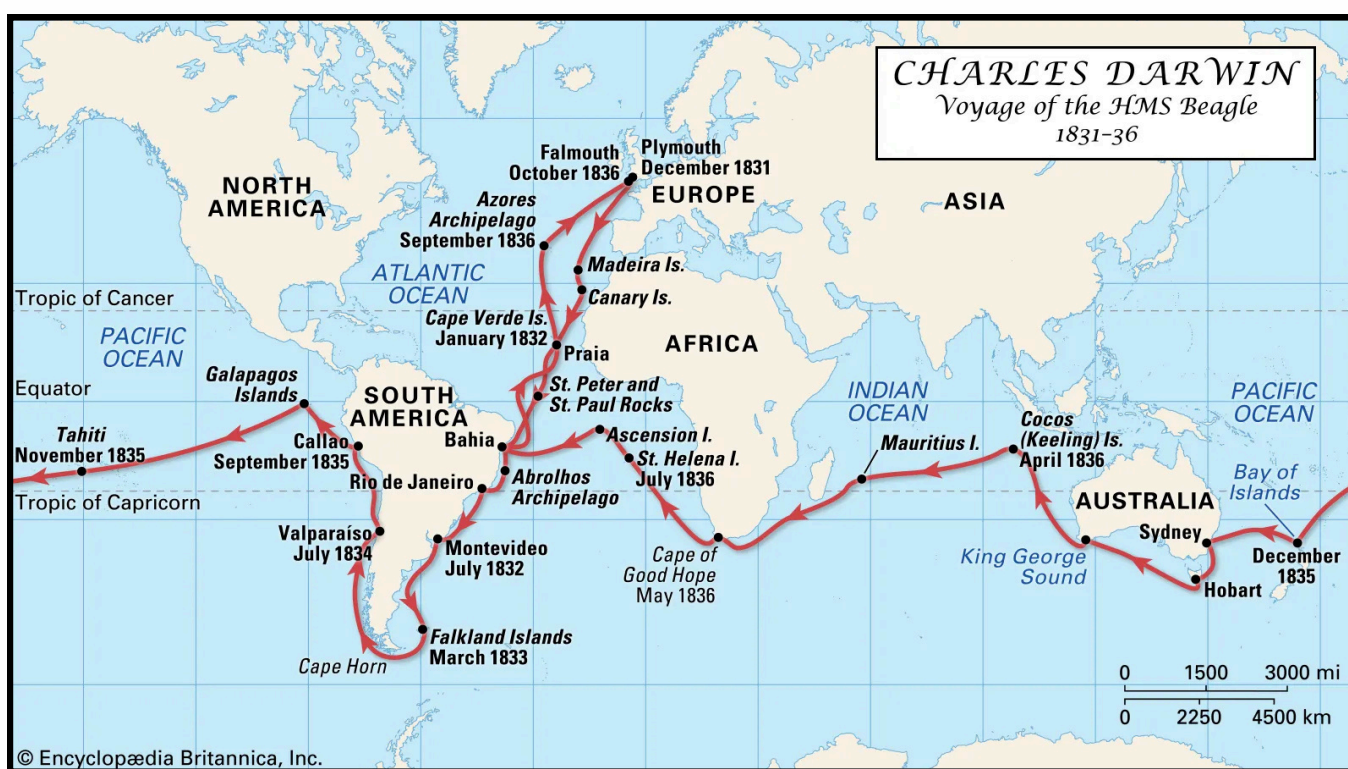
Darwin and Natural Selection



Darwin Day 2025

Charles Darwin (1809 - 1882) was an English naturalist, geologist, and biologist. He was among the first to define natural selection and evolution, and the idea that species can share a common ancestor and diversify.

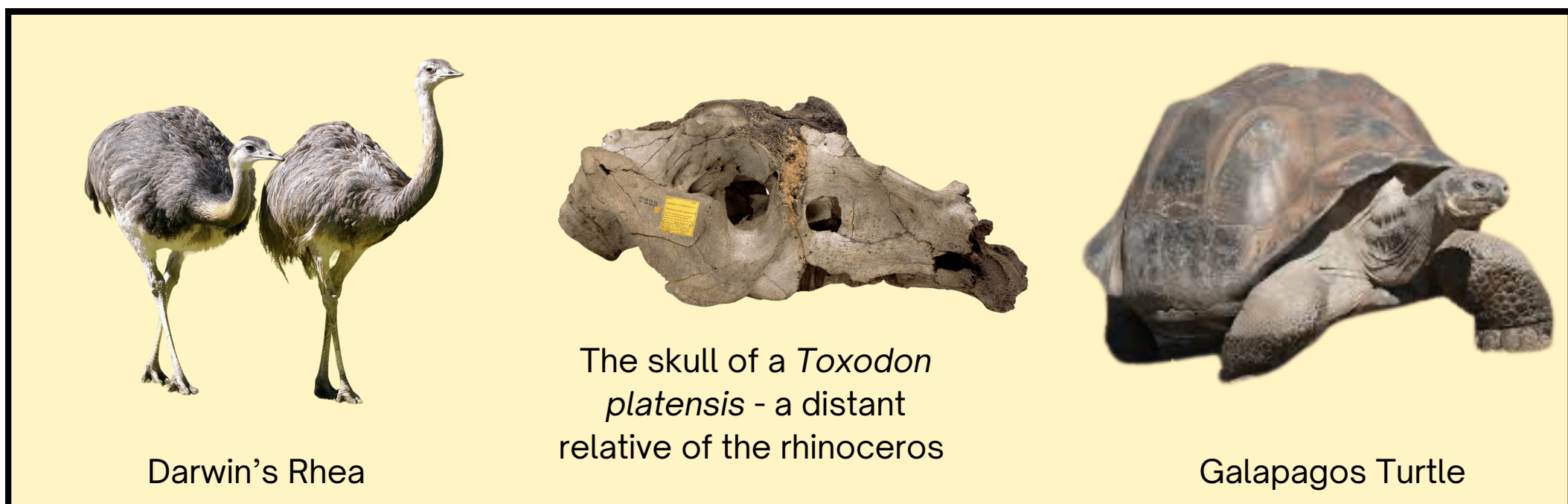
Darwin's Voyage: The Expedition That Transformed Science



The HMS Beagle

In 1831, Darwin began a five-year voyage on the HMS Beagle, exploring South America. His observations led him to come up with the theory of natural selection. He collected thousands of specimens, including fossils and plants, which helped him gradually develop his ideas on evolution.

Darwin's Fascinating Findings



Evolution Through Natural Selection

Individuals in a population are naturally variable.

These variations confer advantages to some individuals in the population.

These individuals are likely to survive and reproduce more successfully.

Over time, the 'advantageous' traits become more common and may get fixed.

Speciation and extinction are ongoing processes!
There is nothing positive or negative about them. Values are human thoughts.



A Diversity of Finches

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Galápagos Islands, South America



A diversity of Finch species can be found on a single island.

Different Beak Sizes, Different Ecological Niches



Large Ground Finch
Geospiza magnirostris



Cordia lutea fruit and seed



Medium Ground Finch
Geospiza fortis



Scutia spicata fruit and seeds



Small Ground Finch
Geospiza fuliginosa



Portulaca oleracea fruit and seeds



Common Cactus Finch
Geospiza scandens



Opuntia echios flowers

Over many generations, the favourable adaptations of the Finches' beaks resulted in the branching out of different species.

Just a thought activity!

Imagine there was a scarcity of food on the island and only one type of food was easily available. What would happen over time? Competition for food? Survival?