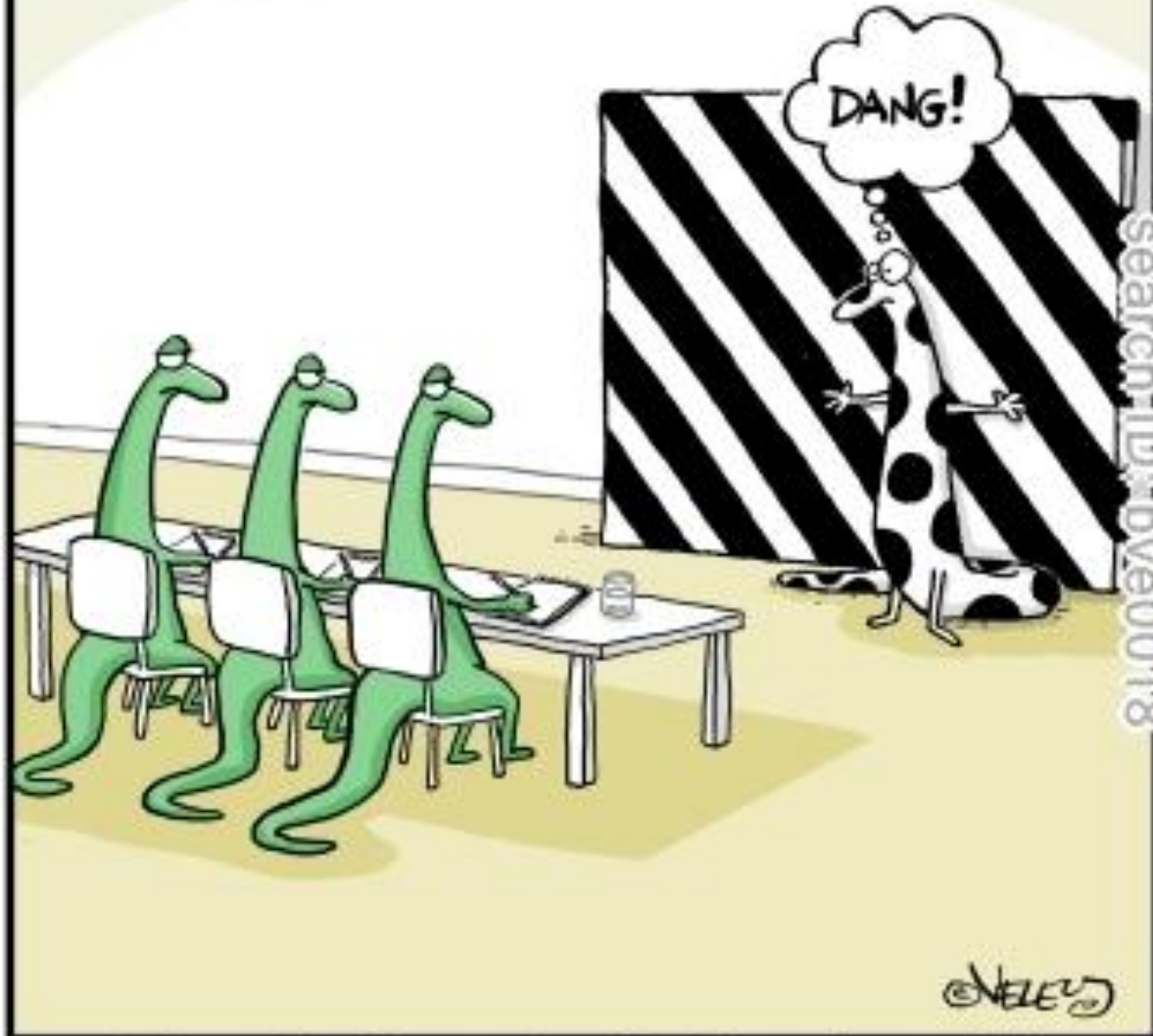




HUGH HOBBS 1 @ HUGHHUBBS.COM

...ITS CALLED EVOLUTION  
AND IT MEANS IN A FEW  
YEARS WE'LL WALK RIGHT  
OUT THAT DOOR.

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*Ed totally blows the final portion of his  
Chameleon Aptitude Test.*



# 15-1 The Puzzle of Life's Diversity



**Evolution** is the **process** by which modern organisms have descended from ancient organisms.

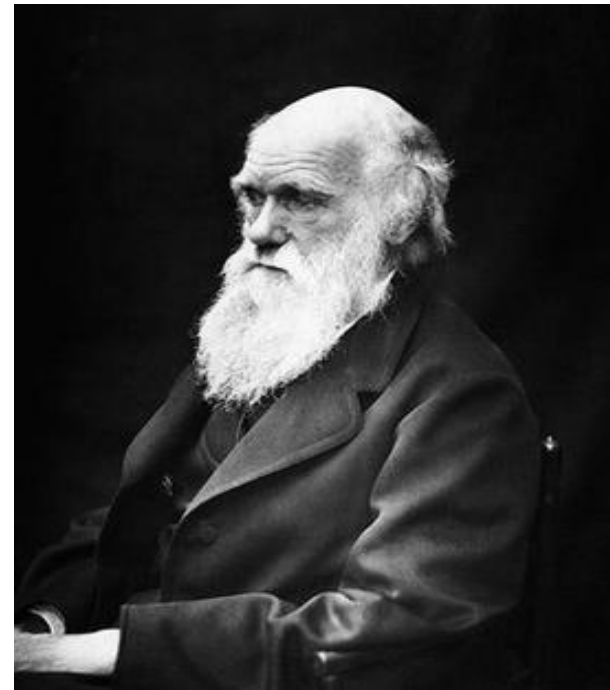
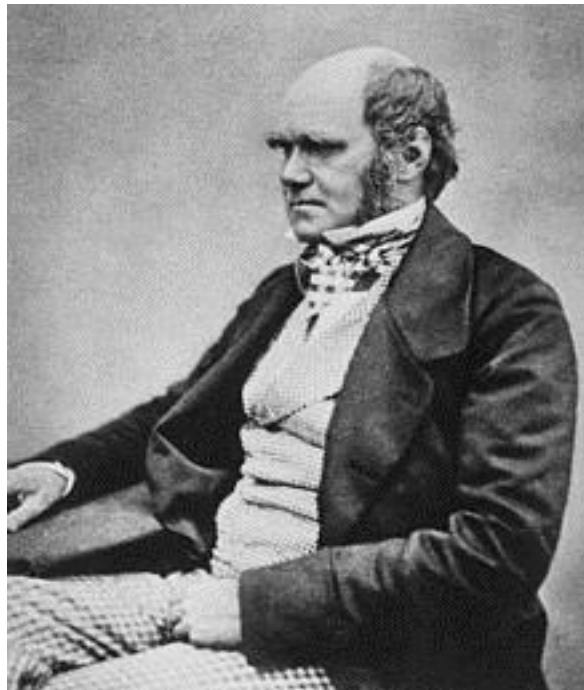
A scientific **theory** is a well-supported testable explanation of phenomena that have occurred in the natural world.

# Not an educated guess



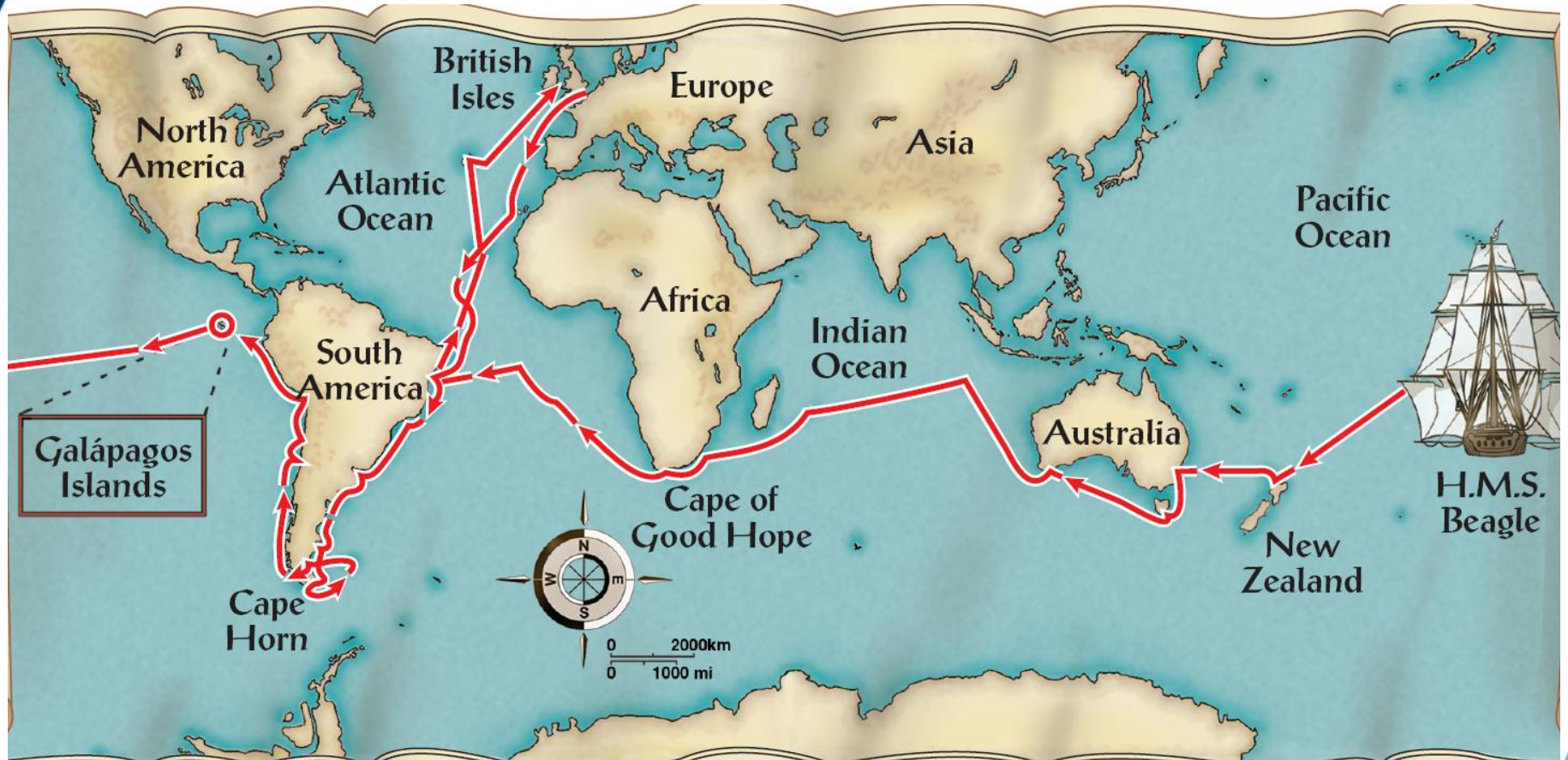
## Voyage of the *Beagle*

1831, Darwin (England) H.M.S. *Beagle*---- voyage around the world. Collected plant and animal specimens. Kept records of his observations and thoughts.



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# 15-1 The Puzzle of Life's Diversity → Voyage of the *Beagle*



## Darwin's Observations

Darwin observed that many plants and animals were **well suited** to the environments they inhabited.

He was impressed by the ways in which organisms survived and produced offspring.



# 15-1 The Puzzle of Life's Diversity →







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## 15-1 The Puzzle of Life's Diversity →



## 15-1 The Puzzle of Life's Diversity → Darwin's Observations

Darwin was puzzled by where different species lived and did not live.

Grasslands in some regions were similar to one another but were inhabited by very different animals.





## 15-1 The Puzzle of Life's Diversity →









## Living Organisms and Fossils

Darwin collected **fossils**.

Some of those fossils resembled organisms that were still alive.

Others looked completely unlike any creature he had ever seen.



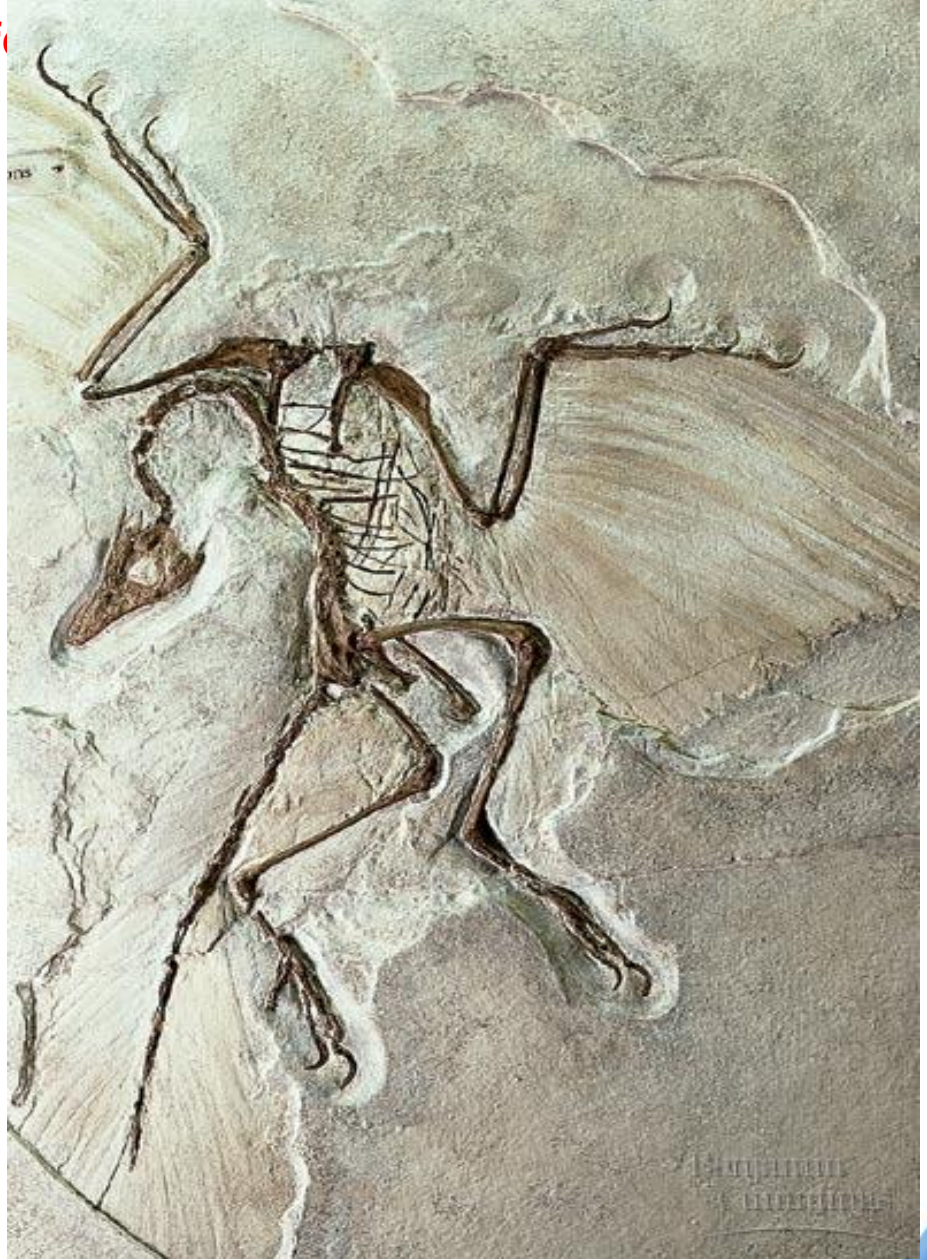




**Tasmanian Tiger:**  
**extinct**  
**-native to Australia**  
**and Tasmania**  
**-went extinct in**  
**1930s**

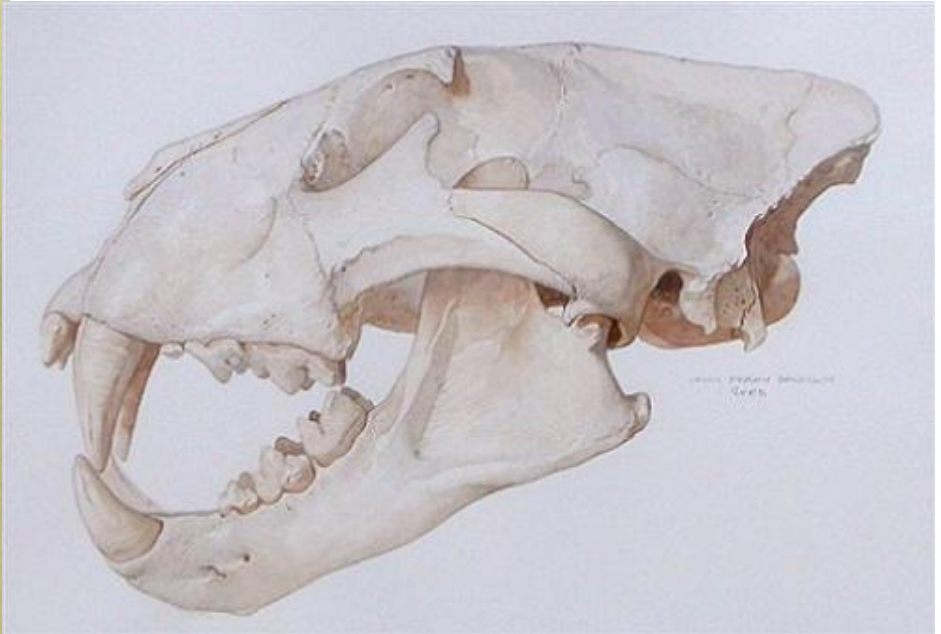


if



# Archaeopteryx





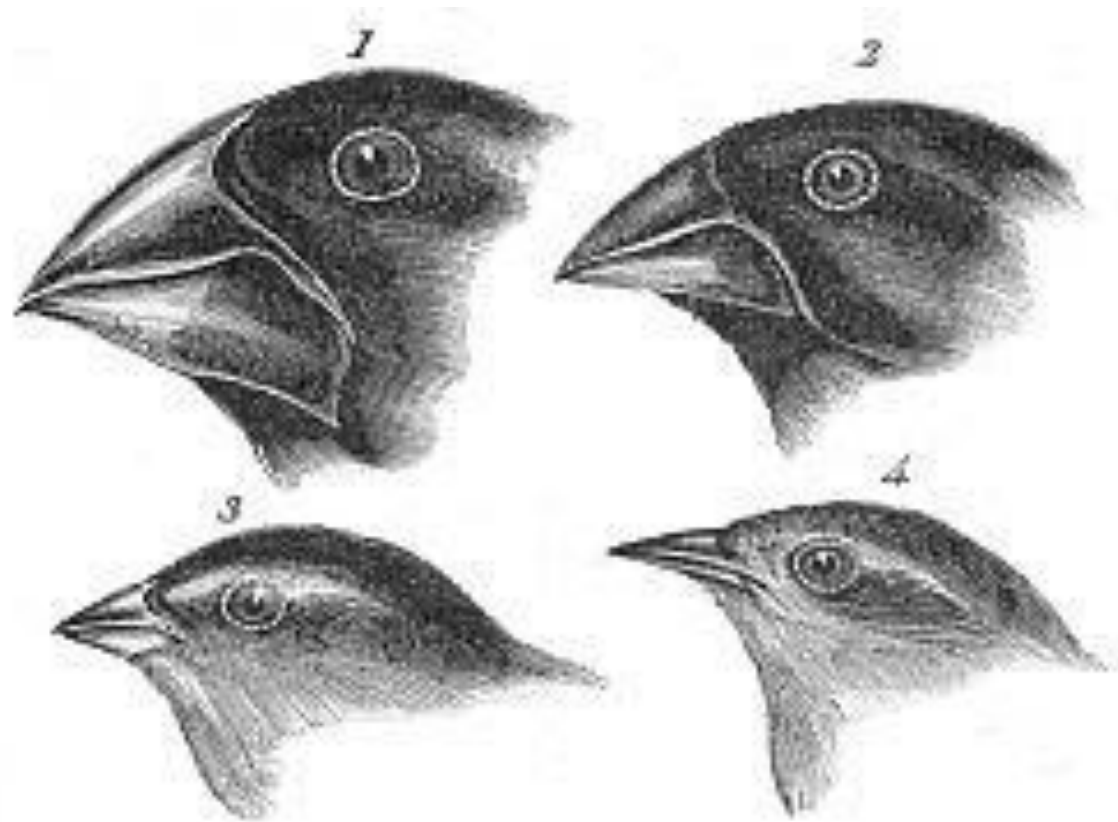
## 15-1 The Puzzle of Life's Diversity →







# 15-1 The Puzzle of Life's Diversity →



1. *Geospiza magnirostris*  
3. *Geospiza parvula*

2. *Geospiza fortis*  
4. *Certhidea olivacea*

Finches from Galapagos Archipelago



## 15-1 The Puzzle of Life's →





## 15-1 The Puzzle of Life's Diversity →





Darwin wondered if animals living on different islands had once been members of the same species.

These separate species would have evolved from an original South American ancestor species.

# 15-1 Section QUIZ

Continue to:

**Section QUIZ**

- or -

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## 15-1 Section QUIZ

**1** Darwin's observations in the Galápagos Islands included all of the following EXCEPT

- A**
- a. characteristics of many living organisms did not vary among the different Galápagos Islands.
  - b. many plants and animals were well suited to their environments.
  - c. very different animals inhabited many similar ecosystems.
  - d. though close together, the islands had very different climates.

**2** What did Darwin learn about the tortoises of the Galápagos Islands?

- a. Tortoises with dome-shaped shells were found on all of the islands.
- b. The tortoises resembled fossil remains that were found on the islands.

**A** c. The shape of the Galápagos tortoise shells varied with their different habitats.

- d. Different shaped tortoise shells occupied the same habitats.



## 15-1 Section QUIZ

**3** According to Darwin's proposed theory of evolution, species of organisms

- A** a. change over time.
- b. are not related to fossil remains.
- c. do not vary from one location to another.
- d. remain unchanged when the environment changes.

## 15-1 Section QUIZ

**4** Darwin hypothesized that different-looking mockingbirds from different islands might be descendants of birds that

a. belonged to a single species that had originated on the islands.

**A** b. belonged to a single species from the South American mainland.

c. belonged to a different species from similar habitats in South America.

d. had been brought to the islands by earlier visitors.



## 15-1 Section QUIZ

**5** What role did the evidence gathered by Darwin play in developing his ideas?

- a. It immediately gave him the idea that organisms evolved.
- b. It confirmed evolution—an idea he had before he left England.
- c. It confirmed evolution, which he proved on his arrival in the Galápagos.

**A**

d. It led to considering the possibility of evolution only after he was heading home.

**END OF SECTION**