

Darwin's work (TB 15 - 1, p. 369)

Charles Darwin studied all of his contemporaries' works while on a sailing voyage aboard the H.M.S *Beagle*.

Figure 15 - 1, p. 369

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During this trip, Darwin observed many different species of organisms that were not native to his homeland and collected large quantities of resources, such as fossils.

Although he knew a lot about the species that were native to England, he was faced with an immense diversity of new organisms on his travels.

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Darwin's main observations:

- a large number of the species he encountered well adapted to live in their environments, and survived exceptionally well.

Questions:

- Is there a process that leads to adapting to one's environment?

- Similar ecosystems did not necessarily contain similar organisms.

Questions:

- Why don't similar ecosystems contain similar organisms?
ex: Australia's grasslands have no rabbits!

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- fossils he gathered sometimes resembled organisms alive at the time, others didn't look like anything he had ever seen.

Questions:

- Why had so many species disappeared?
- How were they related to living species?

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The Galapagos Islands

This tiny set of islands influenced Darwin more than any other area on Earth.

Although these islands are close together, they each have a unique climate.

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Lower islands had higher temperature and less vegetation.

Higher islands had more rainfall and a larger biodiversity.

Some organisms, such as tortoises, had very specific, but different body shapes that could be traced back to particular islands.

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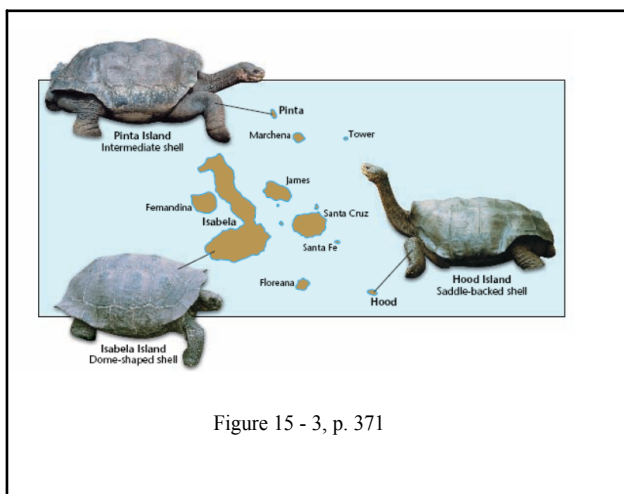
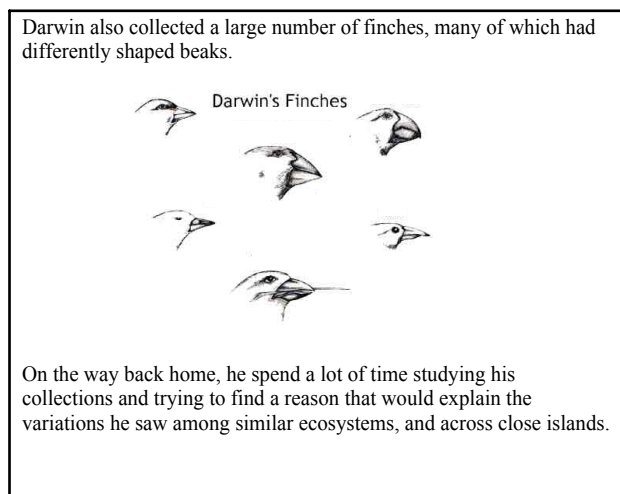


Figure 15 - 3, p. 371

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On the way back home, he spend a lot of time studying his collections and trying to find a reason that would explain the variations he saw among similar ecosystems, and across close islands.

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