The Origin of Species: The Beak of the Finch (HHMI)

- 1. How old are the Galápagos Islands? 2:45
- 2. What do the different beaks tell us about the 13 different finch species? 3:30
- What evidence showed the Galápagos finches trace back to a single common ancestor from the islands? 4:50
- 4. What measurements did they take of the medium ground finches on Daphne Island? 6:00
- 5. How did the food supply change during the drought?
- 6. How did finch beak sizes change during a drought?
- 7. How did finch beak sizes change again after strong rains produce vegetation with small seeds? 9:00
- 8. What keeps different species from interbreeding?
- 9. What is the most likely scenario that produced the 13 species of finch in the Galápagos?

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- 1. These volcanic islands are geologically young. They began rising from the ocean floor less than **five million years** ago. At first devoid of life, they now support a modest number of species.
- 2. **Warbler finch** with very fine, needle-like beak is perfect for picking off insects. **Woodpecker finch** with a rather more robust beak. It concentrates on beetle larvae and termite larvae. **Cactus finch** with a much longer sharp pointed beak which probes into cactus flowers. Three species are the **large**, **medium and small ground finches**. The beaks are tools and you need the right tool for the right job.
- 3. DNA evidence that all of the finches are more related to each other than any one is to a species on the mainland. And that tells us only one species arrived on the archipelago, and diversified into the 13 species that we see nowadays in the Galápagos. So they've all come from a single common ancestor.