

Chapter 17-4: Patterns of Evolution

Essential Question:

- What are 5 important patterns of ***macroevolution***?

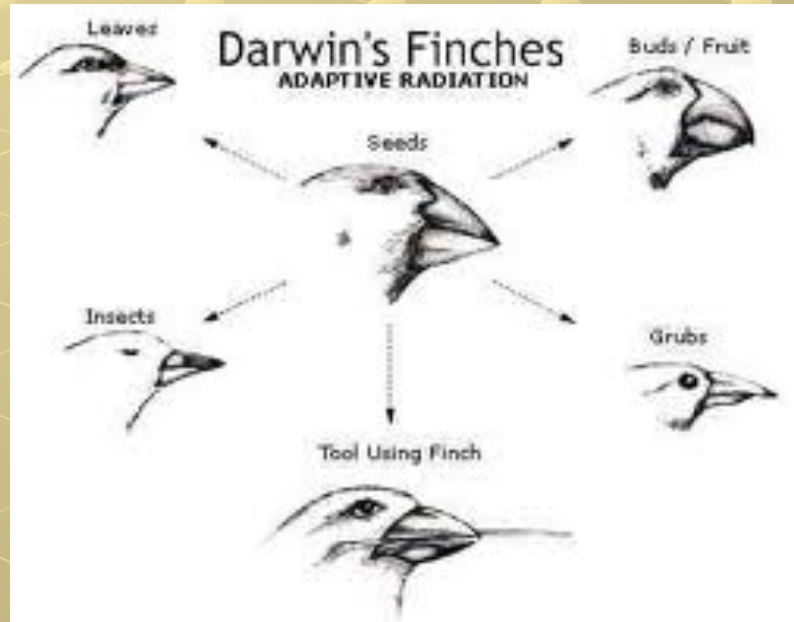
● Mass extinctions

- Several mass extinctions shown in fossil record
- Effect is to leave many habitats open for surviving species
 - Often a burst of evolution follows mass extinctions



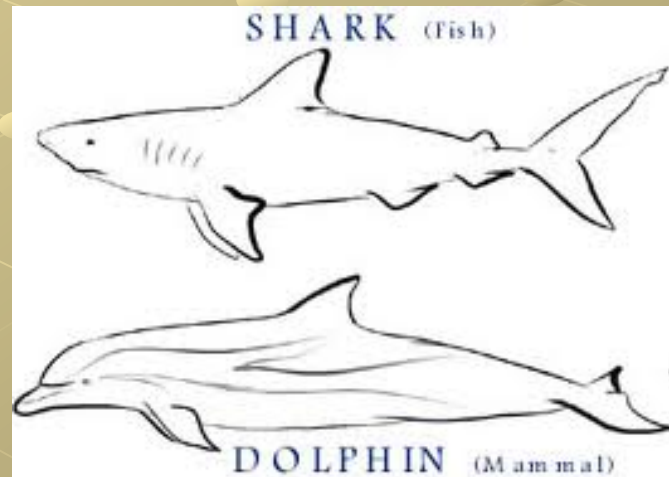
● Adaptive radiation

- Single species evolves into several different forms that live in different ways



● Convergent evolution

- *Unrelated* organisms that look remarkable similar to each other
- Cause is both species are evolving in similar environments
 - Selection pressures are similar on traits
- Ex: sharks and dolphins



● Coevolution

- 2 species evolve in response to changes in each other over time
- Ex:
 - flowers & pollinating animals
 - Poisonous plants & resistant insects



● Punctuated equilibrium

- Modification of Darwin – he was a “gradualist”
- Fossil record indicates long periods of little evolution “punctuated” with periods of rapid change in species

