



Natural Selection

Remember to **practice** using these terms.

Adaptation

Genetic drift

Allele

Geographic isolation

Artificial selection

Habitat

Behavioral isolation

Mechanical isolation

Convergent evolution

Mutation

Divergent evolution

Natural selection

Ecological equivalents

Niche

Evolution

Species

Founder effect

Temporal isolation

Gene flow

Questions

1. An individual's *fitness* is determined by its a) ability to compete for limited resources; b) resistance to disease; c) ability to escape predators and avoid parasites; d) physical strength and hardiness; e) success in contributing genes to future generations.
2. Use the key on the next page to identify the bill- and foot-adaptations of the birds. The purpose is to promote thinking about adaptations and natural selection. What would have happened to a bird with the woodpecker living on a rocky island in the middle of the ocean? To a bird with the grebe foot living in the desert?

Biol 101

Bird Identification/Adaptations key

Birds that eat animals in water

- A. Catches fish in open water; can dive to 66 m Loon # _____
- B. Eats fish, mollusks, crustaceans, frogs
 - 1. Lobed feet, in coastal water Grebe # _____
 - 2. Does not swim; in tidal flats Heron # _____

Birds that eat animals on land

- A. Hunts in open marshes and fields Kite # _____
- B. Hunts in dry country; runs rather than flies Roadrunner # _____

Birds that eat insects

- A. Hunts on trunks and tree branches Woodpecker # _____
- B. Hunts in the air Flycatcher # _____

Birds that eat aquatic invertebrates and plants

- A. Drills for crustaceans and mollusks in mudflats Stilt # _____
- B. Dabbles or dives Duck # _____

Birds that are scavengers and omnivores

- A. Coastal waters and refuse dumps; swims but doesn't dive Gull # _____
- B. Scrub vegetation Jay # _____

Birds that eat nuts and berries

- A. 66% of its diet is pine seeds Crossbill # _____
- B. Ground dwelling
 - 1. Scratches for seeds Quail # _____
 - 2. Pushes rocks aside with its bill Thrasher # _____

