Evolution

(Convert)

Convergent Evolution – Unrelated species that evolve similar traits even though they live in different parts of the world. ~~(Birds)~~

Flying squirrel ⟷ Sugar Glider (This happens because they live in similar environment)
(North America) (Australia)

(Diverge → Separate)

Divergent Evolution – Related species that were separated and evolved different traits/characteristics, because of a different environment. Ex: A group of mice become separated by the formation of a river. Overtime, the northern mice become whiter and smaller, while the Southern mice become larger and Brown. At one point, these mice were exactly the same.

Notes over Symbiosis

This will be on your Test and quiz!

Population – group of individuals of the same species living in the same area, potentially interacting

Community – group of populations of different species living in the same area, potentially interacting

Commensalism - is a relationship between two living organisms where one benefits and the other is neither harmed nor helped. One species receives a benefit from another species -> enhances fitness of one species; no effect on fitness of the other species.

(Benefits) (Not harmed or helped)

Ex: The clownfish lives among the forest of tentacles of an anemone and is protected from potential predators. Ex # 2: Some birds live among cattle to eat the insects stirred up as they walk. One example are egrets who hunt for insects near a grazing animal's mouth

Parasitism - One organism, usually physically smaller of the two (the parasite) benefits and the other (the host) is harmed. One species feeds on another -> enhances fitness of parasite but reduces fitness of host.

(Parasite) -> Benefits (Host) - Affected

Ex: Ticks and fleas that live in a host animal's fur bite the animal and drink its blood are parasites. Insects such as mosquitoes feeding on a host are parasites.

(Same)

Mutualism: Both Species Benefit from the Interaction. Two species provide resources or services to each other -> enhances fitness of both species.

Ex: Flowers and their Pollinators (examples: Bees and hummingbirds gather nectar and spread pollen.) Ex #2: Birds and mammals eat berries and fruits while the plant benefits by the dispersal of it seeds. Cleaners eat insect pests from the skin of animals. (ex: Egyptian plover cleans giraffes and buffaloes) Ex # 3: Many herbivores such as cows, sheep, deer, horses and rabbits depend on bacteria that live in their stomachs to break down the plant material.

(Predator)

Predation - one eats another (Herbivores eat plants. Carnivores eats animals) Ex: Cat eating Mouse, Lion eating a rabbit, etc.

Predator – Benefits Prey – Dies