

Ecology review ppt



What is a producer?

Plants and their relatives ie algae

What is an autotroph?

- A producer/ plant or plant relative that can make its own food

How do producers make their own food?

- photosynthesis

What is food chain?

- Model of how energy flows through 1 specific group of organisms.



What is a food web?

- Model of all the feeding relationships in an ecosystem to show how matter and energy flow through the ecosystem.

A trophic level is analogous to...

- An organisms feeding level ie producer, first order consumer etc...

What does a first order consumer eat?

- Plants, they are herbivores.

What does a second order consumer eat?

- Only meat, they are carnivores

What does a third order consumer eat?

- Both plants and animals, they are omnivores.



How do we define ecology?

- The study of living organisms and how they interact with each other and their environment.

Define a population

- A group of similar organisms (same species) living in the same place at the same time.



What is a community?

- A group of interacting populations (different species)



Define an ecosystem

- Different populations interacting with one another and the abiotic components of the environment.

Define and give examples of abiotic factors.

- Non-living parts of the environment
- Temperature, light, humidity...

What is a biotic factor?

- All the living parts of the ecosystem
- Plants and animals



What is carrying capacity?

- The maximum number of organisms the ecosystem can support indefinitely.

What two values are roughly equal when a population hits carrying capacity?

- Births and deaths



What is symbiosis

- A close permanent association between different species.

What is mutualism?

- Both parties involved benefit
- ie. A cleaner rasp (fish) cleaning parasites off of a grouper (bigger fish)

What is commensalism?

- One party benefits, the other one is unaffected
- Ie. Moss growing on a tree

What is parasitism?

- One party benefits and the expense of the other.
- Tape worms



What is a climax community?

The stable end result of succession that experiences little or no change from year to year.



What is succession

- Change in the environment over time.



What is primary succession

- The step wise movement of live into an area that had no life in and no soil in it before.



What is secondary succession?

- The step wise movement of life into an area that had life once but a disaster took it away.
- Replacement of life after a disaster.



What is a decomposer?

- Organisms that feed on dead or decaying matter.



What is a heterotroph?

- Organisms that cannot make their own food.

In the nitrogen cycle... what organisms change nitrogen in the air to something that a plant or animal can use?

- Bacteria in the soil

What is the original source of energy for life on Earth?

- The Sun

What can be said about the carbon, nitrogen, and water cycle that is true for all three?

- They are cycles for substances that are required by all living things for survival.

Which biogeochemical cycle would involve precipitation?

- Water cycle

Why is only 10% of the energy available at one trophic level passed on the next in an energy pyramid?

- Some the energy in each trophic level is used for life processes by the organisms in that trophic level
- Some of the energy is lost as heat

Does human activity has an impact on the carbon cycle?

- Yes, the burning of fossil fuels put CO_2 in the air faster than plants can remove it.

What kinds of animals would you expect to find in the grasslands?

- Herd animals.

What biome has the coniferous forest in it?

- taiga

What is the major limiting factor for the tundra biome

- Temperature

Where do we find phytoplankton?

- Photic zone



Define limiting factors.

- Biotic or abiotic factors that restrict the presence, distribution, and/or reproduction of organisms within and ecosystem.

What plant life dominates the tundra?

- Low growing trees, mosses, lichen, shrubs and a few grasses

What kind of plant life dominates the deciduous forest?

- Trees that shed their leaves in the winter.

What kind of plant life dominates the desert?

- Cacti and other succulents



What is the portion of the shoreline affected by tides called?

- Intertidal zone



What is the part of a body of water that lacks light called?

- Aphotic zone

What do we call a body of water
that is a mix of fresh and salt
water?

- Wetlands or estuaries



What is permafrost?

- Layer of soil that stays frozen year round.

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- Good luck !