PEER Life Science Ecosystems Environmental Protection Notes Outline

**Why It Matters**

* Name three causes of habitat destruction:
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* A change in one \_\_\_\_\_\_\_ is likely to affect other niches and their occupant species.
* Dumping toxins into our lakes and oceans can concentrate in \_\_\_\_\_\_\_\_\_\_\_ like mercury in fish.
* A species arises only when there is a great deal of genetic \_\_\_\_\_\_\_\_\_\_\_ in a population that matches the opportunities provided by a unique and \_\_\_\_\_\_\_\_\_\_\_\_\_ niche.
* Human activity is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ many niches by making habitats for our own species. Our \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of plants and animals creates uniformity in gene pools which decreases the rate of evolution of new species.
* Dr. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was the “father of the Green Revolution” and promoted making the land we already use for farming more efficient rather than destroying more ecosystems for farmland.

**How We Know**

* Farms and lakes that drain from heavily \_\_\_\_\_\_\_\_\_\_\_\_ farm fields can cause overgrowth of certain plants and limit species \_\_\_\_\_\_\_\_\_\_\_.
* After being placed in a warm oven (incubator), bacteria will grow over every part of a culture plate except around discs with antibiotics that are effective/ineffective at killing the bacteria. Over time more/fewer antibiotics are losing their effectiveness.
* Rivers carry rich soil at can enrich fields when rivers flood. However, much of this good soil does not settle out until reaching the \_\_\_\_\_\_\_.
* Name a way to prevent oil spills.
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Overfishing can lead to extinction because by decreasing the \_\_\_\_\_\_\_\_\_\_\_\_, you reduce the chances for successful \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**What We Know**

* Deliberate introduction of species into new environments can lead to unintended consequences. These non-native organisms are called \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.
* \_\_\_\_\_\_\_ are an invasive species in the Galapagos Islands that have displaced iguanas and turtles as the primary plant-eating animals, leaving almost no food for these species.
* While \_\_\_\_\_\_\_\_\_\_\_\_ can help crops grow better and help combat starvation, overfertilization can cause plant life to explode. This overgrowth can choke of waterways or rob the water of \_\_\_\_\_\_\_\_ as they rot.
* Overuse of the same antibiotic can act as a natural selection \_\_\_\_\_\_\_ that could select for the creation of a new species or strain of bacteria that is \_\_\_\_\_\_\_\_\_\_\_ to that antibiotic.
* Overfishing threatens human food supply but also that of other \_\_\_\_\_\_\_\_\_. For example, the Russian Brown Bear.
* Oil/gasoline is/is not a renewable resource.
* Give two examples of endangered species that have recovered after conservation efforts:
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
  + \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* A possibility for reducing fossil fuel use is to add \_\_\_\_\_\_\_\_\_, made from fermenting grain or crop residues, to gasoline.