- Communities contain species that have complex relationships with one another
- A niche is an organism's role in the community
 - What it eats, what eats it, where it lives, and chemicals it consumes and produces
- Natural ecosystems live in a "balance"
- Energy flows through the ecosystem, and all energy ultimately come from the sunlight
 - Producers (plants) can turn this sunlight into organic molecules via photosynthesis
 - Consumers (animals, fungi) must eat other organisms to obtain energy
 - Can't make organic molecules from the sun
 - There is a hierarchy of consumers
 - Primary consumers (herbivores) eat producers
 - Secondary consumers eat primary consumers
 - Tertiary consumers eat secondary consumers...so on and so forth
 - Carnivores eat animals, and omnivores eat plants and animals
 - Decomposers (fungi, bacteria, earth worms) eat dead stuff
 - Food webs show the complex energy exchange and community relationships
 - Can be affected by climate change, pollution, invasive species, and natural disasters
 - The number of producers and primary consumers if all by smuch greater than the number of secondary and tertion consumers
 - As you go up the levels of the node web, only 10% of the total available energy is able to be many inner so 90% of it is lost
 - Most iccostems do not have enough available energy to support a
 - Nuge population of predators

Hu Ban mpacts on the Diguesh

Main causes

- Human population growth
 - Most of human history has a stable population
 - Around 4000 years ago there was steady growth due to agriculture
 - Around 300 years ago the Industrial Revolution spurred rapid growth
 - It is unknown when the growth would have to stop
 - Continued population growth can impact the environment
 - Environmental degradation
 - Disruption of the food chain
 - Increased global travel and transportation of non-native species
 - Water use
 - People in industrialized areas use up to 100x more water than in less industrialized countries
 - Depleting sources of fresh water
 - In arid environments there is water scarcity and drought
 - Habitat fragmentation
 - Human development leads to the destruction of habitats and ecosystems
 - The resulting habitat is no longer continuous