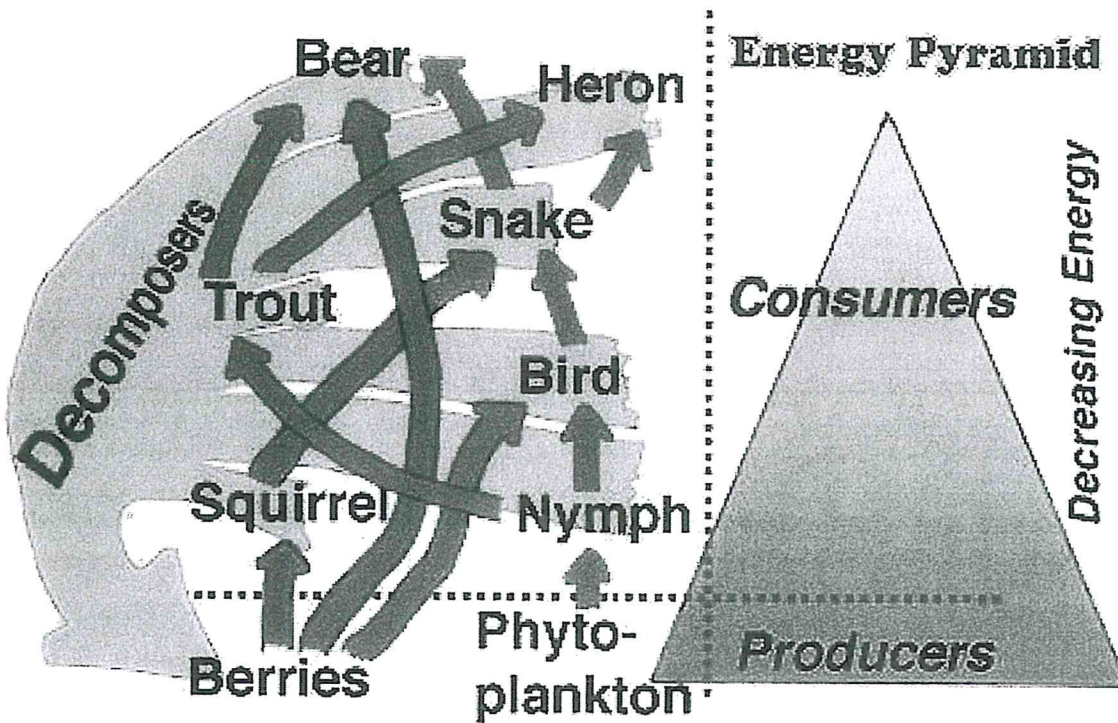


## FOOD CHAINS AND WEBS

### The Big Picture

**Directions:** The following complex diagram summarizes many important concepts relating to food webs, cycling of matter, and flow of energy in ecosystems. Take a few minutes to study the diagram, then answer the following questions.



1. What animal(s) on the food web above are on the highest trophic level? What trophic level is it?
2. Define in your own words the term biomagnification. Suppose that in the food web above, phytoplankton absorbed harmful chemicals in the water. Describe how these chemicals could end up in the body of a bear.
3. Describe the role of decomposers in the food web. Describe where the matter they break down goes.
4. Study the pyramid on the right. Describe what happens to the amount of energy as you go up the pyramid. Notice that the pyramid is placed adjacent to the food web. Describe the energy value of the animals at different points in the food web in terms of the energy pyramid.
5. Describe how a biomass pyramid would be positioned on the diagram. What would be the relative amount of the biomass of the organisms on the food web compared to other organisms?