

5. The following models represent all the interacting species in two different communities with some of the same species and feeding relationships. These models assume that both communities have the same initial biomass. The models can be used to understand the effects of human activities on the communities.

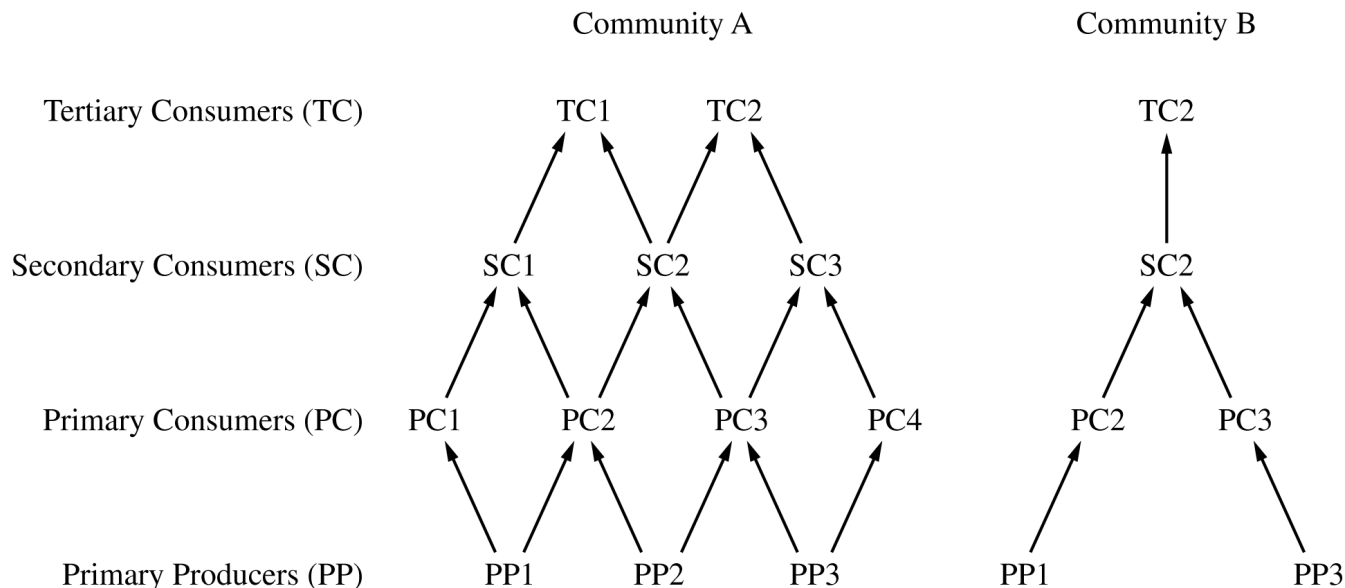


Figure 1. Models of two different communities with some of the same species

- (a) **Describe** a characteristic of a community that makes a species invasive in that community but not invasive in a different community.
- (b) **Explain** why removing species PP1 will have a greater effect on community B than on community A.
- (c) An invasive species (INV) that eats individuals of species SC2 is introduced into community B. Using the template in the space provided for your response, for community B, indicate the feeding relationship for this invasive species by correctly placing **INV** to represent the invasive species and an **arrow** to represent the feeding relationship within community B.
- (d) **Explain** how human activities that add toxins to the soil could change a community with many species at each trophic level, such as community A, into a community with few species at each trophic level, such as community B.