

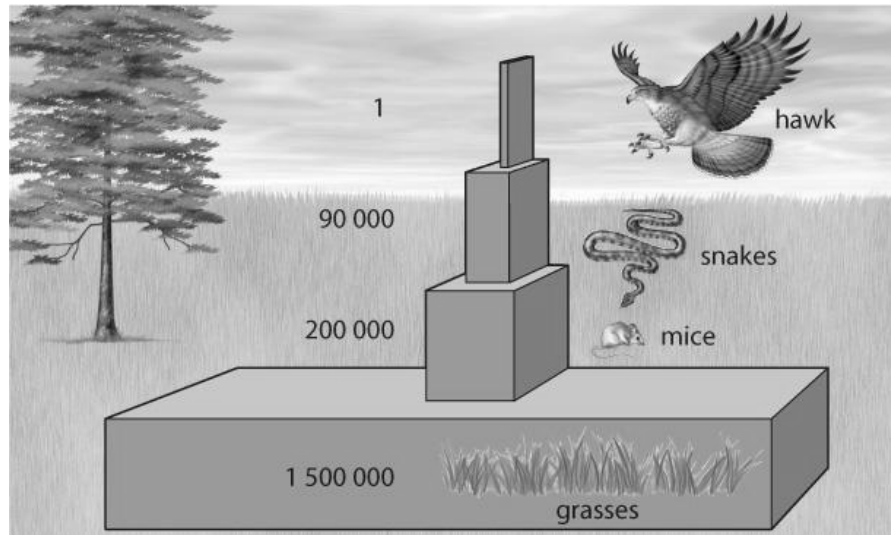
**CHAPTER 1****HANDOUT**

# Ecological Pyramids Question and Answer Exercise

**BLM 1.2.10**

Answer the following questions in the space provided.

1.



a) What kind of ecological pyramid is depicted in the above diagram?

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b) Describe the shape of this ecological pyramid. Why doesn't this pyramid collapse even though there are fewer organisms at the first trophic level than at the second trophic level?

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c) What happens to the energy stored in each trophic level as one moves up through the levels in the pyramid?

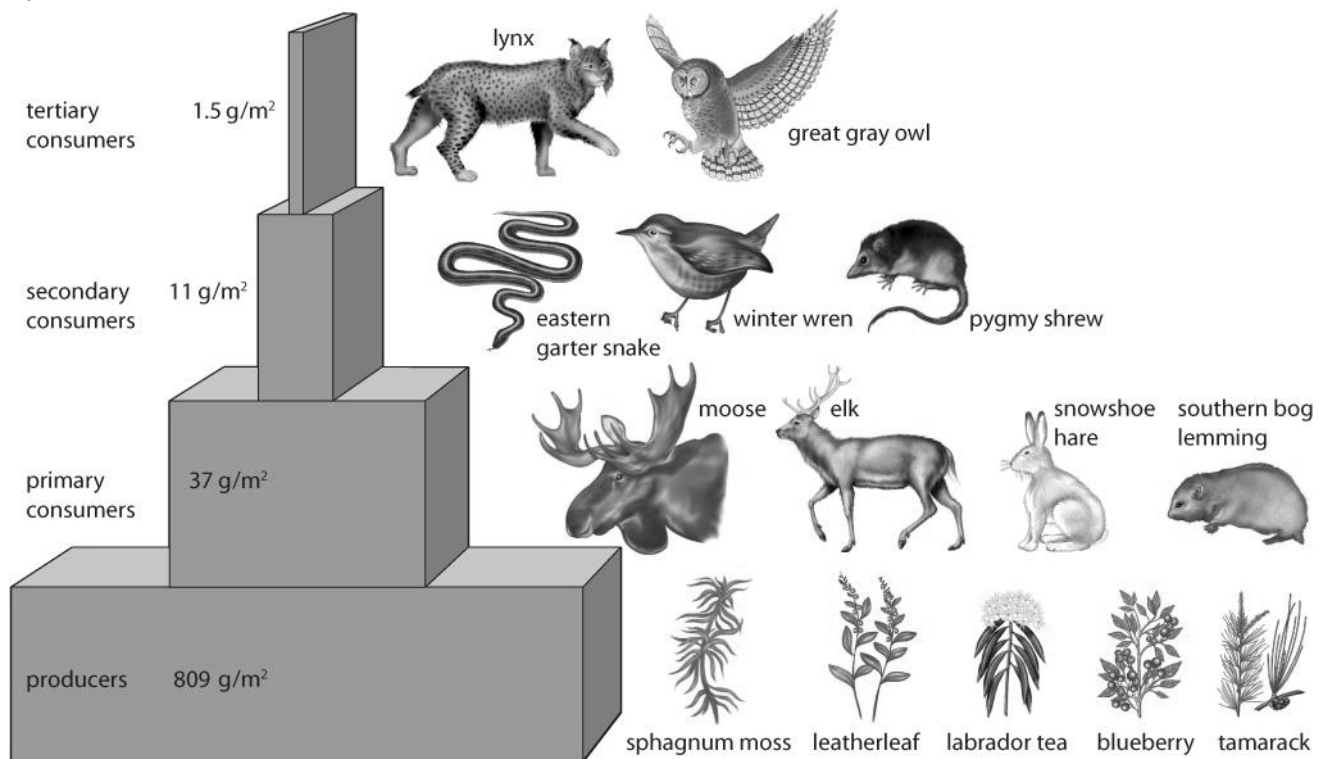
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**CHAPTER 1****HANDOUT**

# Ecological Pyramids Question and Answer Exercise

**BLM 1.2.10**

2.



a) What kind of ecological pyramid is depicted in the above diagram? Provide a definition explaining the nature of this pyramid.

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b) Describe two complications that can arise when biologists use a pyramid of biomass.

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**CHAPTER 1****HANDOUT****Ecological Pyramids  
Question and Answer  
Exercise****BLM 1.2.10**

3. A grassland ecosystem in Alberta receives 1500 kJ of sunlight. One food chain in this community is depicted as follows:

grass → grasshoppers → blackbirds → hawks

a) Draw an ecological pyramid that illustrates the transfer of energy in this community. Using the rule of 10, determine the amount of energy that is stored at each trophic level. Include all relevant labels.

b) A farmer sets up a buffalo farm in this ecosystem. Over time, the buffalo greatly reduce the grass biomass in the community. Explain how the introduction of this new species could affect the amount of energy transferred within the food chain that is shown above.

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