BIOMES, ECOSYSTEMS, AND HABITATS

WHAT IS THE DIFFERENCE?

A **biome** refers to a region of the world characterized by its resident life, environment, and climate. Temperature, precipitation, and amount of sunlight all affect what type of life resides in a particular biome and help define each biome. There are a number of biomes around the world, including savanna, rainforest, desert, taiga, and marine biomes.

The taiga, or boreal forest, is the largest terrestrial biome. This northern biome extends from below the Arctic and occupies parts of North America, Europe, and Asia. The region is characterized by high elevation, nutrient-poor soil, and cold temperatures. The taiga is marked by the presence of evergreen trees, such as pines and spruces. There may also be some deciduous trees, such as oak and birch. The animals that reside here are specially adapted to the cold, with features like thick fur. Such animals include snowshoe hares, moose, wolves, and lynxes.

The word **ecosystem** refers to the interaction between organisms living together in a particular environment. This definition encompasses both biotic and abiotic factors, such as water, climate, and soil. Additionally, ecosystems are defined by the flow of energy and nutrients throughout the system.

An example of an ecosystem within the taiga is the Interior Alaska-Yukon lowland taiga. This ecosystem is home to animals like waterfowl, caribou, and black bears, as well as trees like black spruce and alpine fir.

A **habitat** is specific to a species or population of organisms. Wherever that population lives is its habitat.

Consider the habitat of the Chinook salmon. This migratory fish lives in freshwater and marine environments depending on where it is within its life cycle. Chinook salmon inhabit the Interior Alaska-Yukon lowland taiga ecosystem for part of their life, but their habitat extends beyond that. They are born in fresh water, like the Yukon River, and then migrate to the Pacific Ocean as they mature. However, when it is time to spawn, they return to fresh water.

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