

Study Guide 13.1: Ecologists Study Relationships

KEY CONCEPT

Ecology is the study of the relationships among organisms and their environment.

VOCABULARY

ecology	ecosystem
community	biome

MAIN IDEA: Ecologists study environments at different levels of organization. Complete the table by filling in the blanks with the name of each level of organization studied by ecologists. Choose from the following terms: *ecosystem, population, organism, biome, community*.

Level	Description	Example
1. _____	Individual living thing	A monkey
2. _____	A group of the same species that live in one area	Monkeys living in a forest
3. _____	A group of different species that live together in one area	Monkeys, birds, frogs, and plants that live together in a forest
4. _____	All of the organisms that live in a given area, as well as the climate, soil, water, rocks, and other nonliving things in that area	A decaying log in a forest
5. _____	A major regional or global community of organisms, usually characterized by climate conditions and plant communities that live there	Warm, moist regions near Earth's equator where tropical forests thrive

MAIN IDEA: Ecological research methods include observation, experimentation, and modeling.

Fill in the blank with the word or phrase that best completes the sentence.

6. _____ is the act of carefully watching something over time.
7. A(n) _____ survey makes use of evidence, such as the footprints left behind by animal, to follow animals that are difficult to track.
8. An experiment conducted in the _____ takes place indoors and does not always reflect all of the interactions that occur in nature.
9. An experiment conducted in the _____ takes place where an animal typically lives.
10. A scientist who studies an organism by using computers and mathematical data to simulate changes in its ecosystem uses a _____ instead of an experiment.

Vocabulary Check

11. _____ is the study of the interactions among living things, and between living things and their environment.
12. A _____ contains both communities and ecosystems.