Life in a Community

You live in a community. But it might not be the community you think you live in. Most people grow up with the idea that their community is the homes, businesses, roads, institutions (schools, hospitals, government offices, police, library, etc.), and people they interact with regularly. Community is people meeting, working, planning, and living together.

That's one meaning of community. But that's not what community means to the ecologist. From a scientific point of view the **community** you live in comprises the populations of plants, animals (including humans), and other living **organisms** that live and interact in an area. Furthermore, community is *only* the populations living in an area, not the place where they live. Your ecological community might include one or more populations of rodents, several populations of trees, lots of populations of grasses, hundreds of populations of insects, and countless populations of microscopic organisms like algae, fungi, and bacteria. Now *that's* your community.

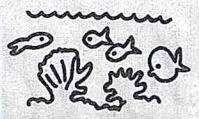
Because communities are described by the organisms living in them, no two are exactly the same. The community of organisms living on an island in Lake Superior is similar to, but not the same as, the community living on the shore of Lake Superior near Marquette, Michigan. Both of those communities, however, are very different from the community of organisms living on the coral reef just offshore from Key West, Florida.

ISLAND

sparrow
crow
osprey
mosquito
black fly
badger
skunk
squirrel
mouse
pine
spruce
oak
beech
blueberry
moss
grass

LAKESHORE

sparrow
crow
osprey
mosquito
black fly
deer
badger
fox
skunk
mouse
moose
pine
spruce
oak
beech
blueberry
grass



CORAL REEF

algae
sea grass
sponge
coral
lobster
moray eel
angelfish
gobi
nudibranch
snail
sea star
octopus
sea urchin
shark
porpoise
shrimp

Another factor that defines a community is the interaction among organisms. In a community, every organism's life is connected to every other organism's life in some way.

Some interactions are obvious. When a robin eats a worm, the robin is fed and the population of worms decreases by one. Other interactions are not as easily observed. The importance of an ash tree as a safe place for a robin to build a nest to raise young might be overlooked, but without the protection provided by the tree, the chances of the robin's increasing the population are reduced.

When the robin dies and its body falls to the forest floor, populations of decomposers, like bacteria and fungi, consume the remains, increasing their population and recycling the minerals from the robin's body back into the environment. The ash tree benefits from the mineral nutrients returned to the soil, increasing its vitality. A more vital ash tree is more likely to grow larger and produce seeds to reproduce new ash trees. The robin's mineral remains, processed by the decomposers, nourish the tree, which in turn provides more nesting sites for the next generations of robins.

This is just one peek into the complexity of a community. The interactions among the organisms together with the nonliving surroundings is called an **ecosystem.**

What organisms do you interact with in your community? Which ones do you eat, and which ones eat you? Which ones compete for your food, and which ones provide shelter or comfort?