

Basic Definitions of Ecology and the Environment

Ecology

Ecology is usually defined as the study of the interrelationships of living organisms and their environment. In short, ecology is the study of biological interactions. This involves the full range of living organisms: bacteria, protozoa, algae, fungi, plants, animals, and human beings. Viruses and subviral particles are also ecology factors, although they do not have the complete characteristics of living organisms.

Ecology comes from the Greek words, *oikos*, meaning “house” or “home,” and *-logy*, meaning “discourse” or “science.” Hence, *ecology* literally means “the science of our house or home.” The term *economics* has the same stem, *oikos*, and the suffix *-nomics*, meaning “law” or “management.” Hence, *economics* literally means “laws of the home” or “management of the home.” The common origin of these two terms suggests that, although the fields of ecology and economics are often at odds in our modern world, they must finally come together again in our consideration of world futures. Ultimately, good economics will have to involve sound ecology.

The Environment

The word *environment* comes from the French verb *environner*, which means “to surround, encompass or encircle.” Thus the environment refers to the surroundings of ourselves or any organism. These surroundings can be considered in three categories: physical, biological, and social.

The physical environment of an organism includes the air, water, inorganic chemicals, and physical structures around the organism. This includes terra firma, buildings, automobiles, and fabricated goods.

The biological environment includes all living organisms of other species--microorganisms, plants, animals, and the entire living community of other species that exist around a given individual.

The social environment includes all individuals of the same species in the surroundings of the individual under consideration.

This definition of the environment is broader than that used in most ecology books, but this

broad approach is essential to understanding the true scope of modern ecology. It would be fruitless to try to interpret what is happening to the earth without considering human factors.

--from "Global Ecology in Human Perspective" by C.H. Southwick (1996)--