

THE ROLES OF INSECTS IN THE WORLD

BENEFICIAL FOR PEOPLE

POLLINATION:

About 80% of flowering plants depend to at least some degree on insects for pollination (see pollination poster for information)

DECOMPOSITION OF ORGANIC MATERIAL:

Various beetles, termites, carpenter ants, & other wood-eating insects help break down wood into tiny pieces that fungi and bacteria then convert to soil material. Some fly & beetle larvae feed on decaying plant and animal material; some other fly and beetle larvae feed on dung.

SOIL ENRICHMENT AND AERATION

Insects are often described as second only to earthworms for creating humus and aerating the soil. Contributing to this are springtails and ants. There can be several thousand springtails per cubic ft of surface soil.

INSECTS AS FOOD

Insects are very important food for many birds, fish, amphibians, and small mammals. People in other parts of the world eat insects, e.g., in sections of Africa, some caterpillar species are an important part of the diet.

DETRIMENTAL FOR PEOPLE

CARRIERS OF DISEASE TO PEOPLE

Mosquitoes transmit malaria and West Nile virus, house flies carry the typhoid fever pathogen, and the dog flea transmits a tapeworm.

CROP AND STORED FOOD DAMAGE

The corn monoculture in the U.S. has losses of hundreds of millions of dollars a year from corn borers. Locally, the glassy-winged sharpshooter, which transmits Pierce's disease to grape plants, is a real concern. Beetles and other insects cause losses to stored food.

BUILDING DAMAGE

Everyone in southern Calif. is familiar with what termites can do.