THE ECOLOGY OF SOIL NEMATODES

Nematodes are incredibly abundant and diverse in soils. Some are parasitic on the roots of various plants, where they do considerable damage. Their large reproductive potential is generated at the expense of the plants on whose tissues they feed. The result is millions of dollars worth of damage to garden, truck farm, woody, and ornamental plants.

The vast majority of soil nematodes, however, are freeliving. They move between soil particles and are important in soil ecology. For example, some nematodes feed voraciously on soil bacteria and fungi, helping to control the populations of these microorganisms. Other nematodes feed, in turn, on these microbial feeders and also play an important role in biological control. Still other nematodes are eminently important in the entire process of decomposition. Many of these species are omnivorous or saprophytic (eat decomposing organic matter). Soil anthropods, some fungi, and earthworms feed on the abundant soil nematodes. Overall, nematodes are essential to the energy flow and nutrient cycling in soil ecosystems.