

Scientists show respect for some parasites

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U.S. scientists are showing more respect for some parasites that have been found to be surprisingly important in food webs.

Food webs trace the flow of energy through an ecosystem, extending the concept of food chains to biological communities. Food webs rarely include parasites because of the difficulty in quantifying them by standard ecological methods since parasites are small and hidden in their hosts.

However, the study -- conducted by researchers at the University of California-Santa Barbara, the U.S. Geological Survey, and Princeton University -- found parasites strongly affect food web structure and parasite links are necessary for measuring ecosystem stability.

"Food web theory is the framework for modern ecology," said Kevin Lafferty, a USGS scientist based at UC-Santa Barbara and lead author of the study. "Parasites have been missing from this framework and, as a result, we know relatively little about the role of parasites in ecosystems.

"It's like driving with a highway map, but with no knowledge of the smaller road network," he added. "To reach most destinations, you need a map with both."

The research is reported in the early online edition of the Proceedings of the National Academy of Sciences.

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