# Study: Predators bind ecosystems together

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An international team of scientists published a theoretical analysis this week, positing that complex ecosystems are held together by their top predators.

Although food webs could not exist without the plants and microorganisms that form their basis, the researchers say those complex tangles of relationships are crucially pinned together by the activities of their top carnivores.

Neil Rooney and his colleagues at the University of Guelph, Canada, surveyed data from aquatic and terrestrial ecosystems across the world, including Chesapeake Bay off the eastern United States, the Alaskan tundra, a European pine forest and a Dutch experimental farm. They concluded food webs consist of different "channels," in which energy is passed upward in the food chain at varying rates.

Those differing rates are bound together by the activity of top predators, which feed from a range of different sources.

The research by Rooney, as well as scientists at Queen Mary University in London, the University of Florida in the United States and the Pierre and Marie Curie University in Paris, is detailed in the current issue of the journal Nature.