

Food Webs

Biology

Why webs are more realistic than chains, and what a keystone species does.

A network of interconnected food chains showing feeding relationships in a community, in which most organisms occupy several trophic positions.

KEYSTONE
outsized effect

CASCADE
top-down

- Most consumers eat at more than one trophic level.
- A keystone species has a disproportionate effect relative to its abundance.
- Trophic cascade: change at the top propagates downward.
- Removing a top predator can collapse the whole structure.
- Webs with more connections are generally more resilient.
- Decomposers link every level back to the producers.

LOOK FOR IT

Sea otters eat urchins; urchins eat kelp. Removing otters produced urchin barrens where kelp forests had been.

Wolf reintroduction to Yellowstone is the most-cited trophic cascade, though the strength of the effect is debated.