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Ecosystem trophic structure and energy flux in the Northen Gulf of California, Mexico

M.V. Morales Zarate, Francisco Arreguín Sánchez, Juana López Martínez & Salvador E. Lluch Cota

Using the Ecopath with Ecosim software, a trophic structure model of the Northern Gulf of California was constructed to represent the main biomass flows in the system. It was based mostly on bibliographic data and provides a snapshot of how the ecosystem operates. The model consisted of 29 functional groups. The total system throughput was 6633 tonnes/km2 per year, from which 51.7% are for internal consumption, 20.0% are for respiration, 16.0% becomes detritus, and 12.2% are removed through commercial fishing. Main results show that most groups were impacted more by predation and competition than by fishing pressure, and that there are some characteristics that indicate that use of the ecosystem is balanced.

Palabras clave: Specialist, Ecopath, fishery, Biosphere Reserve, trophic structure, Ecological model