

NORTH SEA FOOD WEB

The ecology of the North Sea is complex and diverse, with a range of organisms living together in a complex food web; each performing roles of predator, prey or primary producers.

The North Sea ecosystem is under heavy pressure by human activities. Some species are more sensitive to certain pressures than others. Eventually, the compound effect of pressures causes changes, shifts, and destabilizations in the food web that can have long-term consequences for the ecology.

FOOD CHAIN – WHAT EATS WHAT?

The levels of a food chain (or food pyramid) are called trophic levels. At the very base of the food chain are a collection of plants and very tiny organisms called phytoplankton. They harness sunlight energy and create biomass through the process of photosynthesis.

Phytoplankton biomass is the primary food for other aquatic organisms, including zooplankton. Zooplankton are various small organisms that feed on phytoplankton and other zooplankton, and are themselves food for larger planktivores, which are in turn food for the next levels.

The biomass in each trophic level is always less than the trophic level below. On average only 10% of the energy from an organism is transferred to its consumer. The rest is lost as waste or movement energy. As a result, each trophic level supports a smaller number of organisms and provides a lower biomass production.

