

Phytoplankton are the autotrophic component of the plankton community, performing photosynthesis: they synthesize organic matter from inorganic substances dissolved using solar radiation as an energy source. Phytoplankton are at the base of the food chain in most aquatic ecosystems.

Phytoplankton, as well as forming the basic trophic level of the majority of aquatic ecosystems, produces half the total oxygen produced by plant organisms on Earth (Article on the NASA site. Retrieved June 10, 2011).