

Coral reefs in the philippines and the trophic levels and organism localization a...

[Science](#), [Biology](#)



Coral Reefs Ecology in Philippines of Affiliation: Coral Reefs Ecology in Philippines Philippines happen to be the home of world's richest marine life, with a chain support of more than 500 species of coral and 2, 000 species of fish. Ideally, this is one of the greatest hotspots for marine life diversity. Despite being very tiny organisms, it is evident that corals construct some of the world's both largest and ecological important structures (Alicea, 2006). Just like other organisms, coral reefs in Philippines are organized into various trophic levels both for their health and for functionality. The Philippines coral reefs' trophic levels are of three categories, producers, consumers, and decomposers from which energy is transferred from one level to another. From the lowest level to the higher level, organisms feed on each other, with the latter being decomposers that break down the tertiary consumers into components used by the producers for their growth (Alex, 2009). This ideally means that at each level, organisms depend on each other for survival. In the primary producers level; photosynthetic organisms that make their own food by synthesizing organic compounds, there are mainly coralline algae, filamentous turf algae, and other species of seaweeds (Alicea, 2006). For primary consumers, mainly zooplankton and invertebrate larvae feed on the primary producers for their food and acquisition of energy. In this level, organisms such as jellyfish form around the coral polyps to interact with the reefs by offering protection from predators in the secondary consumer level (Alex, 2009). In the secondary consumer level mostly plankton consumers such as parrotfish common in the Philippines coral reefs, which interact with algae by the parrotfish feeding on the microalgae (Alicea, 2006). Microalgae usually cover the reefs making them unhealthy by preventing their growth.

Others in the same level include Sixbar wrasse of *Thalassoma Hardwicke* species and Double whiptail of the *Pentapodus emeryii* species. These feed on small fish that when reduce in numbers, result in an increase of algae, thereby requiring parrotfish to prevent algae from covering the coral reefs hence hindering their growth.

The final level is made up of tertiary consumers, majorly carnivores that feed on the secondary consumers. With increased feeding on algae by the parrotfish, algae reduce substantively thereby reducing their population, and hence reduced growth of the coral reef. The parrotfish play a substantive role in the Philippines coral reefs ecosystem, making them irreplaceable.

References

Alex Rose, 2009. Coral reef ecology. Retrieved from: <http://www.coralscience.org/articles/PDF/Coral%20reef%20ecology.pdf>

Alicea, E. (2006). Collaborative biophysical and socioeconomic monitoring towards adaptive management of priority coral reefs in the Philippines and

Vietnam: final report submitted to U. S. NOAA International Coral Reef

Conservation Grant Program. U. P. Diliman, Quezon City, Phillipines: Marine

Environment and Resources Foundation