

## RESEARCH ARTICLE

# Seasonal variations of zooplankton distribution with relation to water quality parameters off Godavari Estuary, Andhra Pradesh

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### SUMMARY

Zooplankton abundance and diversity of zooplankton with relation to physico-chemical parameters in five stations at off Godavari estuary, Bay of Bengal during October 2010 to May 2011. A total of 29 samples were collected from the five stations, whereby 19 zooplankton groups belonging to six phylum were identified. Among the groups, Copepoda was the most dominant and abundant group which contributed 54.17%-72.73% of the total zooplankton population. Zooplankton holds a key position in the food web as it was directly related to the consumption of organic energy produced by phytoplanktonic photosynthesis and then by transforming it to the higher trophic levels of heterotrophs such as fish. This disappearance may be due to the fact that some species occur in spores, under favourable conditions spore germinate and appear as zooplankton. Plankton diversity and physico-chemical parameters of water are important criteria for evaluating the suitability of water for culture practices. Therefore, structure of different fish food organisms assumes greater significance to fisheries management.

**Key Words :** Water quality parameters, Zooplankton groups, Godavari estuary

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