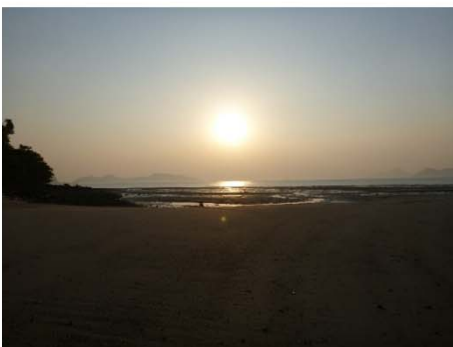
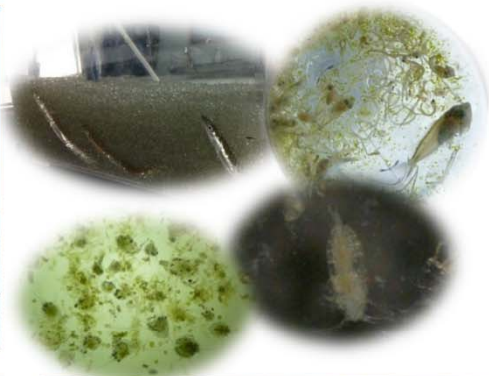


Suitable nutrient status for healthy and highly productive ecosystem in each sub-region of enclosed coastal region of the Seto Inland Sea, Japan

Nutrients are substantially contribute to basal production supporting ecosystem. Anthropogenic nutrient loading into coastal area is closely related to nutrient status of the aquatic ecosystem and often causes severe environmental changes into eutrophication or oligotrophication. Seto Inland Sea is enclosed coastal marine region and consists of some highly environmental heterogenous sub-regions, which have been largely affected by nutrients originated in human activities.

Adaptive management of anthropogenic nutrient inputs should be managed in consideration of the environmental characteristics of each sub-region for receiving sustainable ecosystem service. In this research project, we address the three main issues as described below for understanding suitable nutrient status to accomplish high productive and healthy coastal ecosystem under balanced material dynamics for each sub-region of the Seto Inland Sea.

- **Evaluation of relationship between primary production and chemical and physical characteristics including nutrient status in estuary and offshore area.**
- **Elucidation of key factors determining transparency which affect light condition for coastal primary production.**
- **Assessment of sustainable productive environments for planktivorous fishes which mediate between small planktonic production and large fishes including many high economical valuable fishes.**



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