

Opening remarks (Sustainable Yield and Population Conservation for Marine Organisms from the Point of View of Genetic Resources, International Workshop in Faculty of Agricultural Science and Field Science Center in Tohoku University 2008)

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## **Opening remarks**

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In Japan, a variety of fishery species including vertebrates, invertebrates and seaweeds etc., have been utilized as important foods from an ancient period. For example, Japanese eat not only finfishes, shellfishes and crustaceans but also echinoderms, acidians and others. Recently, it is well known that seafoods are quite good for health and elongation of a life, then many people are becoming eat them in the world. However, the fishery resources have decreased by overfishing and environmental impacts. It is necessary to take prompt measures for sustainable yield of fishery resources.

Naturally, fishery resources used to be unlimited renewable resources before excessive human activity (fisheries). But now, we have to manage the fisheries in the coastal and offshore area beyond the sovereignties. Currently, most of governments comply with TAC (total allowance catch), and are making efforts to improve the environmental condition such as spawning ground, nursing ground and fisheries area. Also, technology of artificial seed production and release them to the coastal area are developing for increasing fishery resources. These actions have been effective, and it could be basically essential, but still not sufficiently supportive. For reconciling conservation and production of fishery resources, genetic viewpoint should be necessary, because we have to think about continuous production beyond the generations.

To achieve sustainable fisheries in the world, it has been more essential to investigate the genetic state of the biological resources as well as their ecology. In this workshop, with the concept of the management of genetic resources, the roles and actual states of phylogenetic and population genetic studies on mollusca, crustacean, echinoderm and vertebrates are introduced and discussed.