My Research objective

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Research area: Republic of Indonesia
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My research site in Sulawesi

In Southeast Asia many mangrove areas have suffered deforestation and over-exploitation and been degraded by the creation of cultivation ponds for shrimp fisheries. Since the mid-1990s, however, many Southeast Asian countries have attempted to conserve and re-forest degraded mangrove areas as a sustainable coastal resource. People now recognize that destruction and degradation of mangrove areas has a negative impact; therefore, such areas have been revaluated and are now considered important places for feeding and spawning of coastal fish and aquatic invertebrates.

The goal of my research is to examine procedures for assessing the influence of the local environment on mangrove ecosystems. During the transition process after re-forestation, mangroves are affected by the physical environment, including the soil, wave movement, and light conditions (松田, 1997). Changes in the physical environment will also influence the mangrove biota. Therefore, to understand the effect of mangrove plantations on biodiversity in degraded coastal areas, it is necessary to assess differences in biota between natural mangrove forests and re-forested areas of various ages by comparing fauna from natural and up to 25-year-old re-forested mangroves. To understand temporal changes in biodiversity in re-forested areas after mangrove planting, comparisons of local


Coastal condition of Sulawesi

fauna in re-forested mangrove sites of different ages are needed.

This time, I conducted field research in the province of South Sulawesi, Indonesia and selected to examine re-forested mangrove conditions: natural mangrove site, re-forested mangrove sites (5-year-old re-forested mangrove site, 10-year-old re-forested mangrove site, 15-year-old re-forested mangrove site). At each of the above-listed sites, the biological investigations were carried out from August 2009 to October 2009. And I will analyzed the data of crab fauna by categorizing feeding-habitats or life-types, and quantitatively, by employing an index of diversity or similarity.

Reference: MATSUDA Yoshihiro (**1997**): "Mangurohbu EnganSuiiki no Butsuri Kankyo." *Umino Kenkyu* (Japanese), 6, 87-109.