

F-2 Research of Conservation of Wetland Biodiversity in Tropical Asia

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We surveyed fauna and abundance of animals, and analyzed the geographical change of the area, physicochemical factor and growth line of shell to clarify the present condition in Matang Mangrove forest in Malaysia. In the forest cutting area, density of animals decreased and several nutrition flowed out from there. Northern and southern parts of area are growing, but centra; area is decreasing, and 0.5 % of the total area is lost in this decade. The animals inhabited in the forest mainly depend on terrestrial ecosystem in contrast of the mud flat animals depend on aquatic one. *Anadara granosa* shells have obstacle rings in wet season which suggested weather condition affected shell growth. As the mangrove cutting gives various affect on wetland animals, we preliminarily discussed on the conservation of the wetland biodiversity.

Satellite remote sensing was applied to monitoring and mapping of wetland environment. Satellite imageries from Landsat TM, JERS-1 SAR and other satellite sensors over typical wetlands from different areas of the world were retrieved, and satellite mosaic maps, vegetation maps and other environmental thematic maps were produced for several test sites with ground truth data. The selected test sites include Kushiro Mire in japan, Matang Mangrove forest in Malaysia, Pracho Khiri Kahn wetland in Thailand and several wetland areas in Australia. Sensor fusion techniques with different types of sensors and scaling techniques with different spatial resolution sensors were investigated as new data processing tools to monitor wetland environment and to produce thematic maps in local / regional / global scales.