Seagrass Fauna: Biodiversity and Ecological Roles

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A project is designed to investigate and study the biodiversity and ecological importance of seagrass fauna in the Peninsular Malaysia. Seagrass is one of the important aquatic ecosystems that have been recognized as the center of biodiversity for marine organisms and are also habitats for large numbers of marine fishes and invertebrates. Unfortunately, many of these species are threatened with extinction because of the lacking in knowledge on its ecological function and mainly also due to the less conservation efforts and recognition been put on seagrass habitats.

Much of the lost of seagrass habitat has been for short-term economic gain, which is now affecting important small-scale fishermen and declining in catches and abundance. The major threats to seagrass ecosystem include sedimentation, sand mining, conversion for port development and pollution (oil, refuse and effluent).

Properly managed seagrass habitats can provide long-term and direct economic benefits as well as maintaining habitat for the high biodiversity. Sustainable industries would include small boat-sized fishermen, better survival rate for fisheries recruitment, ideal for eco-tourism and good for the regulated production of chemical and medicinal products. In addition, seagrass habitats are well known to support inshore fisheries (nursery grounds for fish, shrimps and crabs), education and scientific tool in resource management and genetic resource and biodiversity.

Malaysian seagrass habitats are highly productive ecosystem, with at least 150 species of fish, 32 species of plants, 55 species of shrimps and 10 species of birds and mammals. Besides, there are also numerous numbers of unidentified species found inhabiting seagrass areas. Seagrass habitats compare well with coral reefs and mangroves as centers for biodiversity and important gene pools.

Many dwellers of commercial importance (e.g. seahorse-Hippocompus kuda; crabs-Portunas pelagicus) adopted seagrass areas as their breeding ground due to maximum protection and abundant of food.

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