

## **Trends, prospects and utilizations of sea cucumber fisheries in Malaysia**

### **ABSTRACT**

The holothurian or sea cucumber is one of the marine resources, which has been used not only as luxury food for certain countries but also as medicines. Because of its' higher nutraceutical and pharmaceutical values, sea cucumber has become one of the most important products and it has high price in international market and thus provide an important employment and income source to the coastal communities in many Pacific island countries including Malaysia. They have been harvested for hundreds of years for trade with Asia and were probably one of the worthy exports from the Indo-Pacific islands. Unfortunately, the increase in demand and price, combined with the development of cash economies and growing coastal populations in many islands, has led to widespread overfishing of the resource across much of this region. There is a high level of interest in adoption of aquaculture and stock enhancement techniques to restore production phases, but different capacity levels require implementation of different techniques. Some Pacific island countries and territories have completed successful research trials of hatchery, nursery and release techniques, and now have capacity to scale up this activity but such types of research are still in the initial stage in Malaysia. Factors that work in favor of successful aquaculture include pristine marine environments, long familiarity with sea cucumbers as a commodity, and traditional marine tenure systems that in some places can provide a basis for management of released sea cucumbers. Currently, the exploitation of sea cucumber turns out to be excessive and disrupts its sustainability. Aquaculture is the best way to prevent this severe problem. The success of sea cucumber culture is very depending on broodstock management, seed availability and suitable food for larvae as well as juvenile along with appropriate grow-out culture techniques under controlled rearing protocols.

**Keyword:** Sea cucumber; Be<sup>^</sup>che-de-mer; Trends; Prospects; Potentials; Utilizations