

BASIC KNOWLEDGE IN MARINE SCIENCES

Edited by

Normawaty Mohammd-Noor



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Chapter 3 Seaweed

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Introduction

Seaweeds are classified into 3 main groups viz. Rhodophyta (red algae), Chlorophyta (green algae) and Phaeophyta (brown algae). The classification is primarily based on the pigments and food reserves produced by the species. Seaweed can be found easily in shallow coastal waters of tropical areas in which they provide a suitable and safe breeding environment for different kinds of fish, shellfish and other invertebrates. Besides, seaweed together with seagrass also act as barriers to coastal erosion and to rough waves especially during heavy storm (Ahmad, 1995).

Seaweed have been used as a source of food for a long time. In Japan and Korea, red algae, *Porphyra*, also known as nori has been used as food in everyday life. Examples of food that use nori are sushi and onigiri (rice ball). Due to the importance of this food in Japanese culture, this algae has been cultivated and produced commercially. The high content of vitamin A and C and lack of cellulose in their cell wall makes it easily digestible and good choice for food. Some seaweed, for example *Caulerpa*, can be eaten fresh as salad.

Seaweed are also important in pharmaceutical and food industries whereby they produce carrageenan and alginate. These compounds are useful as thickening agent and are non-toxic. In Semporna, Sabah, red algae, *Kappaphycus* spp. have been cultivated in large scale to get these compounds. The cultivation of *Kappaphycus* in this area which was supported by the Malaysian government has improved the income of local fishermen.