

LAKSHADWEEP TIMES

DAILY

ലക്ഷദ്വീപ് ടൈംസ് ദിനപ്പത്രം

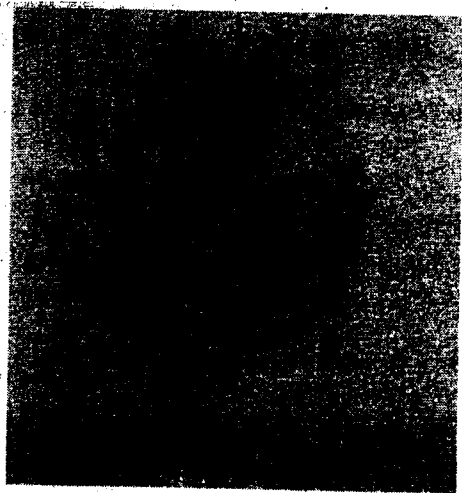
Vol. * XV, No. 28.* KAVARATTI *SUNDAY* 31 OCTOBER, 1999. Price Rs. 2.

Seaweed Resources and their Culture in Lakshadweep

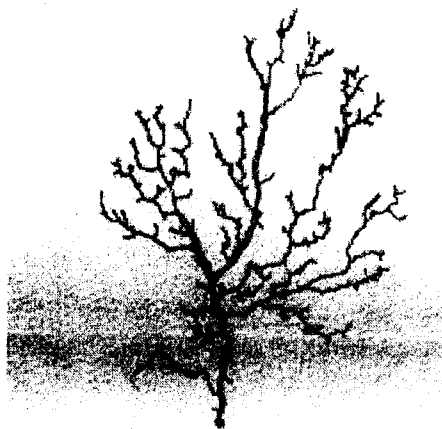
Gulshad Mohammed and A.K.V. Nasser

Plants are the real producers of both the land and the sea. They are capable of generating complex organic substances from simple inorganic compounds dissolved in water. Without marine plants and synthesizers of food, development of marine animal life would be impossible. An important feature of marine vegetation is its lack of variety when compared to the numerous forms characterizing the terrestrial vegetation. This deficiency of plant variety in the sea is also in striking contrast to the wide diversity of marine animal life. However, the most primitive of the plant groups known as the algae are well developed in the sea. Among the algae, those that are visible to the naked eye are higher algae called seaweeds.

The distribution of seaweeds in the oceans is limited by the availability of light and the presence of a suitable substratum for attachment. Due to these limitations, seaweeds are mostly seen in shallow waters attached to hard substratum like rocks or reefs. Seaweeds are classified into green, brown and red algae based on the colour of the pigments present in their cells. Some green algae are covered with calcium carbonate and may contribute to the formation of lime deposits. The brown algae includes the prominent seaweeds that grow to notably large size and popularly known as "kelps". They are the giants among the seaweeds and form marine forests that provide food and shelter to a variety of fishes. Though small in size, the red algae show much more diversity of form than the brown and they are also more abundant. They may occur in abundance in depths less favourable to most of the green and brown algae, and in the Mediterranean they have been reported from depths of 130 m.



Seaweeds have many important uses. The oldest use of seaweeds are as food for men and as fodder for animals. In China, Japan, Malaysia and Western Pacific Islands, seaweeds are highly sought after as food. They are eaten raw as salads or cooked as vegetables. Fresh or processed seaweeds are used in the preparation of pickles with vinegar, soup, porridge and also for garnishing the dishes. Green and red algae are rich in proteins. Algae also contain an abundance of nearly all vitamins and are a rich source of many of the minerals required in human nutrition. Algae is one of our richest biological source of iodine.



Hypnea

Seaweeds are excellent fodder for cattle and poultry, as animals appear to digest them better than human beings. Because of the presence of vitamins, minerals and trace elements in significant amounts, health of the domestic animals is improved when seaweed meal is added to daily rations. Seaweeds are used as manure in coastal areas as they contain high amounts of water soluble potash and other minerals which are readily absorbed by plants. Algin and agar-agar are other products obtained from seaweeds which are colloidal carbohydrates accumulated in the cell walls of brown and red algae. They are used in food, confectionery and dairy industries as gelling, thickening and stabilizing agents in the preparation of sweets, gellies, jams, ice-creams etc. These seaweeds extract play an important role in pharmaceutical and cosmetic industries as emulsifiers and gell formers.

Contd.....col. 1 page 6

Other uses of agar-agar and algin are in the preparation of adhesives, textiles, insect sprays, paints and as liquor purifiers and material for dental impression moulds.



GRACILARIA(AGAROPHYTE)

Japan, Korea and China are the major seaweed producing countries of the world. The geographic distribution of seaweeds indicate that they cover a wide area and found in Chile, Japan, Sri Lanka, Indonesia, Brazil, Madagascar, Vietnam, Philippines, North Korea, South Africa and India.

(to be continued)