

## 14.2 Sources of Alginate Synthesis

The polysaccharide alginate has been majorly extracted from two main sources, viz., brown seaweed and bacteria. The brown sea weeds of class Phaeophyceae and two bacterial species *Azotobacter* and *Pseudomonas* were found to be the major producers.

### 14.2.1 Brown Seaweeds

Seaweeds are macro algae that are found in various habitats from fresh waters to sea zones, and like land plants, they are capable of producing their own food. The sea weeds have been classified into three phylums, viz., Ochrophyta, Chlorophyta, and Rhodophyta. Of these phyla, brown alga belongs to the category Ochrophyta. The classification of brown algae is given below [16]:

Kingdom	:	Chromista
Phylum	:	Ochrophyta
Class	:	Phaeophyceae
Order	:	Dictyotales Fucales Laminariales Desmarestiales Scytothamnales
Family	:	Dictyotaceae Durvillaeaceae Hormosiraceae Sargassaceae Seirococcaceae Xiphophoraceae Alariaceae Laminariaceae Lessoniaceae Desmarestiaceae Splachnidiaceae Scytothamnaceae