

# Zosteraceae

The Zosteraceae is a seagrass family that contains one of the best known seagrass species, *Zostera marina* (eelgrass). This Northern Hemisphere, temperate species even grows in Alaska, seasonally covered by ice. Members of this family are primarily temperate, preferring cooler waters. However, two *Zostera* species in the southern temperate region are also found in tropical waters, *Zostera muelleri* in Australia and *Zostera capensis* in southern and eastern Africa. The taxonomy relating to the number of genera has been controversial. Here we recognise two genera in this family, *Zostera* and *Phyllospadix* (surf-grass). A previously well-recognised genus, *Heterozostera*, is included in *Zostera* following the work of Jacobs and Les (2009). Yet the recent *Flora of Australia* (Volume 39, Kuo 2011) does not reflect these changes and maintains *Heterozostera*. These generic boundaries remain unresolved but in this guide we adopt the treatment of Jacobs and Les.

*Zostera* species are commonly found in protected areas and estuaries. The extensive meadows they form are particularly important primary producers and provide a habitat for many other species of plants and animals. Contrasting with this are the habitats typically occupied by *Phyllospadix* species in the Northern Hemisphere. *Phyllospadix* is found on rocky shores with heavy wave action.

As a family the Zosteraceae are relatively easy to recognise if flowering structures are visible. The inflorescence is characteristic and contains both male and female flowers. The flowers are enclosed within a leaf structure, called a spathe, borne on a specialised shoot. The male flowers usually mature first to avoid pollinating their own female flowers. Once pollinated the female flowers form small seeds lined up within the spathe which, when mature, are released into the water column. These seeds are eaten by many animals common in seagrass meadows, including small prawns, and are consumed by dugong incidentally when grazing in *Zostera* meadows. Seeds are known to survive in sediments for up to one year.

Opposite top: *Zostera tasmanica*.  
Opposite bottom: *Zostera muelleri*.