

The Estuary



Photo © Anne Murray

Broadmeadow Estuary, Co Dublin - an area of huge importance to wildlife.

An estuary is an enclosed body of water that is formed when a river meets the sea. The freshwater mixes with the seawater and lots of mud builds up, making it a very special habitat for many animals and plants. Lots of animals depend on the muddy conditions for survival, so even though an estuary might look like a mucky place to us, they are actually very important areas for all sorts of wildlife. The mud is full of little worms, shrimp and snails, which are eaten by larger animals, such as birds and fishes. In fact, many estuaries are protected by law because of their importance as feeding grounds for migratory bird species. They also act as nursery areas for some fish species, as they provide plenty of shelter and food for the young. Salt marshes may occur in some estuaries, providing another habitat for wildlife. Some of the plants that live in salt marshes have special adaptations in order to survive in the estuary's muddy and salty conditions.

Tips for Birdwatching at an Estuary

- **Visit the estuary in the autumn or winter:** When planning a birdwatching expedition, it is a good idea to consider the time of year. During the summer, most of the migrating birds will have flown to the Arctic or Scandinavia to breed. They generally return during September or October and remain until March or April when they fly back north.
- **Keep an eye on the tide:** The state of the tide is important for birdwatching as it affects the birds' activity. The best time to visit the estuary is about an hour after high tide when the birds should be feeding close to the upper shore. As the tide goes out, the birds will be feeding further out on the mudflats so you may need a telescope!
- **Stay safe and respect the wildlife:** When you are visiting an estuary, do not venture out on to the mudflats or salt marsh as there is a danger of sinking! It is best to view the birds through your binoculars from a good vantage point on some nearby grassland. This also means that you will be less likely to disturb the wildlife.



Animals & plants found in and around an estuary

Waders & Wildfowl

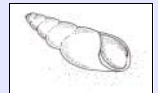
Ducks, geese and waders can often be seen feeding on the mudflats of estuaries.

Waders are birds which wade through the water to find their food.



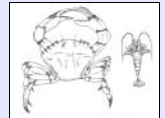
Snails & their Relatives

Snails, cockles, mussels and winkles are shelled animals that live in mudflats and salt marshes. They are often eaten by birds and fishes.



Shrimp & Crabs

Shrimp and crabs belong to a group of shelled animals called crustaceans. They are very important in the diet of birds and fishes.



Worms

Ragworms and lugworms are well adapted for life in an estuary. They live in U-shaped tubes in the mud and are an important food for many waders.



Seaweed

Green and brown seaweeds are found in estuaries. Green seaweed is an important food for brent geese.



Salt marsh plants

Salt marshes contain a wide variety of grasses, sedges and rushes. These plants provide shelter and food for many small animals.



Plankton

Plankton are tiny animals and plants that live in the water. They are eaten by many of the worms and shelled animals.



Fish

Estuaries provide a habitat for many fish species. Flatfish are well camouflaged and are commonly found buried in the mud.



Developed by Sarah Varian & Sherkin Island Marine Station for the Living Coasts Living Seas Project.