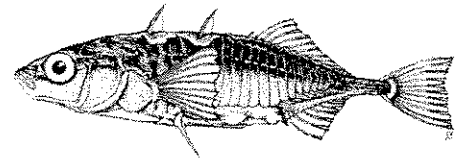


Ecological Roles of Estuaries



- Because of geological structure, estuaries contain several **different types of habitats**: barrier beaches, mud flats, salt marshes, eelgrass meadows, bays, and fresh, salt, and brackish water area
- Estuaries are partially enclosed, and water moves relatively slowly through them. They also continually receive water from both the ocean and the land. Because of this, they tend to **concentrate nutrients** and are among the most **highly productive** types of ecosystem in terms of primary production.
- These habitats provide **food, space, and nursery areas** for a wide variety of plant and animal species.
- Estuaries are habitat and passageways for anadromous and catadromous species of **fish**
- Estuaries provide food, shelter, and a resting place for **migratory waterfowl**
- Many of these species depend on estuary **habitats** for part or all of their life cycle- they can't live anywhere else (**critical habitat**).
- Estuaries provide people with **food** (fish and shellfish) and opportunities for **recreation** such as fishing, boating, swimming, and nature study.
- Marsh areas and undeveloped lands **filter sediments and some pollutants** out of the water, helping keep it clean
- Estuaries provide **sheltered waters** for organisms to live and for human recreation.
- The barrier beaches and salt marshes in the estuary **absorb wave energy** from storms.
- Because they are usually in areas where many people live, estuaries can be **harmed by contamination**, including an oversupply of nutrients from wastewater, fuel combustion, and fertilizers.
- People can also help **protect and restore estuaries** and keep them clean.

