

Fish Diversity

Fish Body Form and Function

Bony fishes have features that are modified depending on their habitat (open water versus reef) and feeding behavior.

Rover-Predators

These are the typical pelagic fishes that have large, highly streamlined bodies, a large forked tail and strong muscles for propulsion. Many do not have swim bladders (swordfish).

Surface-Oriented Fish

These are smaller versions of rover-predators, which feed on plankton or other animals near the surface. They typically have flattened heads and slightly upward-pointing mouths and eyes. (flying fish and halfbeaks)

Bottom Clingers and Hiders

These typically have small, elongated, almost eel-shaped bodies with an extended dorsal fin, top-oriented eyes and pectoral fins oriented down and serving as primitive "walking" appendages. Fish that stick to the undersides of rocks ("clingfish) have their pelvic fins modified into a suction cup, which allows them to cling to the substrate. Bottom hiders depend on squeezing between or under rocks for protection. Some hiders such as the tube blennies use the leftover calcareous homes of tube snails or barnacles as their "second hand homes", leaving only to eat and mate. Many male blennies and jawfishes do not leave for mating or eating; they wait for females to come to them to spawn inside the den and lunge out half way to grab prey. (clingfish, blennies, gobies)

Flatfishes

These peculiar fish begin their lives as normally shaped fish. As they mature they settle on one of their sides, and they assume a flattened outlook on life. To accommodate this new position, the eye that would have been looking down, migrates to the opposite (now top) side of the head and comes to rest next to the other eye. (flounders, sole, and halibuts)

Ambush Predators (Lie-in wait Predators)

These are true bottom predators that are poor swimmers. They have gaping mouths and are usually cryptically colored, strongly resembling the substrate upon which they rest. (stone scorpionfish)

Deep-Bodied Fish

Common to coral reefs, the shape of these fish illustrates a compromise between maneuverability, speed, and defense. The pectoral fins are high on the body and pelvic, dorsal and tail fins are often enlarged. (angelfish, sergeant major)

Eel-like Fish

As their name implies, these fish possess long snake-like bodies customized to slinking and slithering between rocks and the crevices of corals. (moray eel)