



North American Marine Environment Protection Association

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Fact Sheet

Planet & Ocean Discovery Series: Open Ocean

Lophiiformes

Anglerfish

With their glowing lure and oversized, sharp-toothed jaws, the Anglerfish is one of the most recognizable deep sea creatures. Because Anglerfish live in such a hostile environment, with 20 to 100 atmospheres of pressure present in the Mesopelagic, or “**Twilight**,” zone, scientists of the past relied on dead or dying specimens of Anglerfish that had washed up on shore or been caught in mass fishing nets to learn more about this bizarre creature. However, with advancements in deep sea exploration, new light has been shed on the facts and incredible adaptations of the Anglerfish.



The over 200 known species of Anglerfish can be found in deep-sea environments throughout the world’s oceans. They are typically **benthic**, meaning that they spend a majority of the time at or near the seafloor. They range between 20 cm to a meter in length, and they weigh up to 50 kg. The lifespan of an Anglerfish varies from species to species, but most have a lifespan of approximately 20 years.



Did You Know?

Female Anglerfish are much larger than males.

Although most Anglerfish are relatively small in size, they can capture and consume prey up to twice their size thanks to their massive jaws; hooked, protruding teeth; and expandable stomach. Haddocks, squids, cods, and, on occasion, small sea turtles are all fair game for Anglerfish. Anglerfish do not choose to capture such massive prey out of gluttony, but out of necessity; they live in a **nutrient-poor environment** and, as a result, they eat whatever they can, whenever they can. The most common prey for Anglerfish includes crustaceans, small fish, worms, snails, and mollusks.

Did You Know?

When mating, male Anglerfish bite into the female and release an enzyme that fuses their tissues together. Overtime, the male becomes a permanent parasite on the female.

Resources

Anglerfish. (n.d.). American Oceans. Retrieved August 10, 2023, from <https://www.american oceans.org/species/anglerfish/>

Anglerfish. (n.d.). National Geographic. Retrieved August 11, 2023, from <https://www.nationalgeographic.com/animals/fish/facts/anglerfish>

Broad, W. J. (2023, May 11). The Creepy Anglerfish Comes to Light. (Just Don't Get Too Close). The New York Times. Retrieved August 8, 2023, from

<https://www.nytimes.com/2019/07/29/science/anglerfish-bioluminescence-deep-sea.html>



The Anglerfish's iconic, fishing rod-like structure is an **illicium**, a modified dorsal spine that protrudes up and over the head of the Anglerfish. On the end of the illicium is a fleshy growth, an **esca**, that resembles a worm or small fish in size and shape. Anglerfish use their esca and illicium to lure-in prey as they wait on the ocean floor. Female Anglerfish of certain species have a symbiotic relationship with bioluminescent bacteria, housing them within their esca to further entice unsuspecting prey.