Archerfish

**Habitat**

- **In the Wild**: Archerfish are found in the brackish waters of estuaries, mangroves, and sometimes further inland in fresh water from India to the Philippines, Australia and Polynesia.
- **Exhibit Location**: U.S.S. Antiquities

**Characteristics**

- Length: 9-15 inches; Weight: up to 26 ounces
- The archerfish’s coloring can vary, but they are typically silvery with 6 or 7 black spots or vertical bands of varying size lining their sides. The bands help camouflage the fish in the shadows of mangrove vegetation.
- They have narrow, knife-shaped bodies and are flat at the top. Their mouths are large and point upwards. This is ideal for hunting at the surface of the water.
- Male and female archerfish look the same.
- The archerfish has a long groove along the top of its mouth. When it presses its tongue against the roof of its mouth and compresses (squeezes together) its gill covers, it can propel water at its target, sometimes as far as 5 feet away.
- They have large eyes located very close to their mouths, giving them very good binocular vision (using both eyes at the same time). Studies have shown that they are able to judge distances and the angle of light refraction (bending of light) very accurately.
- **Lifespan**: In the Wild: About 2 years  In Captivity: About 5-8 years

**Behaviors**

- Archerfish travel in groups called shoals. A shoal is similar to a school of fish, except a school moves in a coordinated fashion, and a shoal is a group that remains together for social reasons or for hunting.
- Because of the position and construction of their eyes, archerfish can see in 3 dimensions. They can also adjust their aim to account for the distortion (change in the usual shape) that happens when they look at an insect outside of the water. They learn that there is less distortion when they are directly below their prey, and tend to position themselves accordingly.
- They are not born knowing how to aim their shots. When they first begin shooting, they hunt in small groups to improve their chance of hitting their prey.
- They expend a lot of energy shooting their prey, and seem to prefer jumping to catch insects that are closer to the water.
- **Enrichments at the Zoo**: Crickets are placed in a hollow log with holes in the sides. As the crickets emerge from the holes, the fish are able to ‘spit’ at them, just as they would in the wild.
Reproduction

- Little is known about the breeding habits of the archerfish. It is thought that adult archerfish leave their shallow coastal habitats to swim out to coral reefs to spawn when the rainy season begins. The female lays about 20,000-150,000 eggs, which are fertilized externally by the male’s sperm.

Diet

- **In the Wild:** live insects, floating vegetation, small fish
- **At the Zoo:** crickets

Conservation Status

- IUCN status: Not listed; CITES Appendix: Not listed
- Archerfish are fairly common, but they are threatened by habitat destruction. They are also collected for the aquarium trade, and are collected for food in some countries.
- Predators: humans, larger fish, birds of prey

Did You Know?/Fun Facts

- “Toxotes,” the genus name, is Greek for archer; “jaculatrix,” the species name, is Latin for a female javelin thrower.
- Archerfish at an aquarium in Portsmouth, England were being handfed and were no longer shooting at prey. The staff set up a mobile using plastic flies covered with fish food to get the archerfish to begin shooting again.
- The WWII Submarine USS Archerfish was named after this sharp shooting fish.
- In Singapore’s Kew Gardens, archerfish are kept in ponds of water lilies to keep down the insect population.

Children’s Books

- *Fish* by Steve Parker  Reading Level Ages 9-12
- *A Mangrove Forest Food Chain: A Who-Eats-What Adventure in Asia* by Rebecca Hogue Wojahn  Reading Level Ages 9-12
- *Animal Sharpshooters* by Anthony D. Fredericks  Reading Level Ages 9-12

Sources:


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