



AMERICAN EEL

Commission Seeks to Better Understand and Conserve Unique and Highly Valued Species



Introduction

Few of the species under the Commission’s watch have both a unique life cycle story and command attention on the international scene for its high market demand and conservation needs. But American eel is uniquely positioned to captivate one’s attention by its biology, exvessel value, and continued conservation efforts. Even though much is still unknown about the journey American eels undergo from the Sargasso Sea to the estuaries and rivers of North and South America, it is an important species that requires international cooperation to conserve.

Life History

From a biological perspective, American eel are as enigmatic as they are fascinating. Once thought to be a freshwater species, American eel are actually a catadromous species, migrating from inland rivers to the ocean to spawn.

The only catadromous species found in North America, this elusive animal begins its life in the Sargasso Sea, an area of the western Atlantic Ocean east of the Bahamas and south of Bermuda. For up to a year and a half the Gulf Stream transports and disperses larval eel, called leptocephali, along the eastern coast of Central and North America. At this stage the eels are transparent and are no bigger than a stick of gum.



American eel elvers

Leptocephali metamorphose into glass eel as they migrate toward land. The

elver stage occurs when glass eel turn a brown color and move into brackish or freshwater.

As they grow into yellow eel they will feed mainly at night on insect larvae, crayfish, smaller benthic fish, and even smaller elvers when available.

Yellow eel will typically establish a very small home range and have even been known to return to their home range if they are displaced. Another unique characteristic about American eel is when they are densely concentrated in habitat, they are more likely to be males, while eel living in less dense populations are more likely to be females. Females will also grow larger and reach maturity at a later age than males, particularly in the northern regions. Males grow to two feet long and females can

reach up to four feet long, although growth rates are dependent on the habitat latitude and distance from the Atlantic Ocean.

Sexually maturing eel, called silver eel, migrate up to 3,000 miles back to where they were born in the Sargasso Sea. They will spawn once and presumably die. The spawning events have yet to be observed and the exact location remains unknown.

Because all mature adult eel from the entire range come together in one place and reproduce, the American eel population is considered a panmictic (single) stock. So the eel you see in your local rivers and streams are the same as the ones found in the St. Lawrence River in Canada or rivers in South America! (to page 26)

Snapshot.....

American Eel

Anguilla rostrata



Common Names:

Elver, silver eel
yellow eel
freshwater eel

Interesting Facts:

- Eel can travel over land! This fascinating creature can absorb oxygen through its skin, allowing them to travel over land for short distances, such as through mud or wet grass.
- Eel have poor eyesight and likely depend on a keen sense of smell to locate food.
- Aristotle did the first known research on eel.
- Leptocephali (eel larval stage) were originally thought to be a different species.
- American eel were once thought to be the same species as the European eel (*Anguilla anguilla*).

Christmas Eel!

- Eel are considered an important component of the traditional Italian-American “Feast of Seven Fishes” dinner celebrated on Christmas Eve.

East Coast Record: 44.5 inches/8 pounds, caught in New Hampshire in 1975

Oldest Recorded: 20 years

Stock Status: Depleted throughout its US range