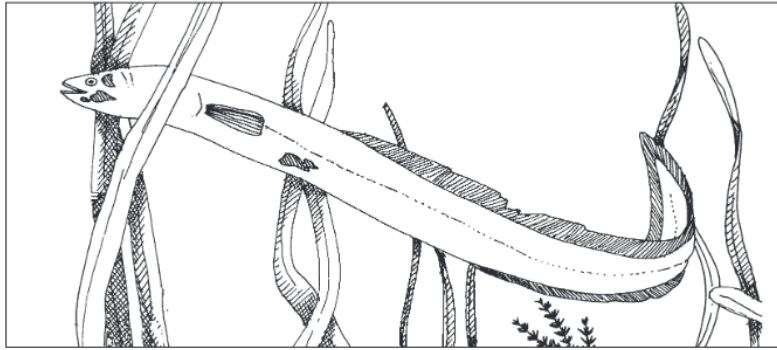


American Eel



US Fish and Wildlife Service

One of the most amazing fish in Middle River is an endurance athlete: the American Eel. No other fish in the Middle River has the complex life stages and migration behavior of *Anguilla rostrata*. This past May, after days of heavy rain made the Middle River run high and mocha-colored, a fisherman fished an American Eel right out of the creek in Verona. This had to be an unusual catch, as eels are most often captured using baited, fine mesh pots, similar to crab pots.

So let's imagine the life of that eel who was recently in Middle River:

- 1) All American eels are born in the Sargasso Sea—a large section of the Atlantic Ocean where 4 different large ocean currents define its boundaries by swirling clockwise around the relatively still, deep center. (Unfortunately the North Atlantic Garbage Patch is also created by the gyrating waters of Sargasso Sea.)
- 2) In the Sargasso Sea, the female eel lays up to four million eggs which float around for about a week before hatching into larvae. As a larva, our eel looked like a little like a transparent leaf. After some growing to about two inches in length, it transformed into a second stage where it was known a “glass eel” because it was still transparent. For up to a year, our glass eel floated with the ocean currents until it arrived at the Chesapeake Bay.
- 3) At this stage it transformed again, into “elver.” Elvers are neither male nor female, but they do start to acquire a brown gray pigment and now are about six inches long. For up to a year our elver grew and migrated upstream through the bay, took a left into the Potomac, then a left into the Shenandoah, kept on heading upstream into the South Fork of the Shenandoah and finally entered Middle River.
- 4) By the time our eel got to Middle River it was at the “yellow eel” stage where he or she would live for up to 15 years here. She may be up to three or five feet long and weigh up to 20 pounds. She will be a nocturnal predator and scavenger, eating other fish, insects, snakes and crustaceans. Her slimy skin is her greatest defense. She is literally as “slippery as an eel.” But

after many years, at some point, her urge to produce offspring will urge her to retrace her long journey back to her spawning grounds—all the way back to the Sargasso Sea.

- 5) Now an elder of her tribe, she will transform into her last stage, as a “silver eel.” In order to adapt to the open ocean again, her body will go through a number of changes. She will add on fat mass. Her eye shape will enlarge and change to adapt to saltwater. Her fins will get larger and stronger to handle 30 miles a day of open ocean swimming. She returns to her birthplace, lays her four million eggs, then likely dies.

Eels are used as human food, and one of their enemies are sharks. All the usual culprits that harm many wildlife—climate change, habitat loss, poor water quality, overfishing— also harm eels. But one specific problem for eels is hydroelectric dams which kill eels as they try to get upstream. Eels *can* maneuver around some river blockages, as eels have the very un-fishlike ability to come aground for short periods and squirm over bits of land. When needed, they usually do this at night, so they will not dry out in the daylight sun.

I am extremely happy to have such a complex and fascinating neighbor living in my watershed!

Read a lot more interesting info from the US Fish and Wildlife Service at:
<https://www.fws.gov/northeast/newsroom/pdf/Americaneel9.26.11.2.pdf>

Citations:

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