

American Eel Fact Sheet

Genus, species: *Anguilla rostrata* (Lesueur 1817).

Common Names: American eel, Anguille, yellow eel, black eel, green eel, glass eel, silver eel, river eel, bronze eel (Facey and Van Den Avyle 1987).

The population of American eels has been declining in an alarming manner since the 1970s, and has been in decline since Europeans arrived centuries ago. The Sargasso Sea is the breeding ground for the American and European populations, but the two are distinct species. American eels follow a complex life pattern involving several



migrations and metamorphoses. It is this complex and specific life pattern that has made American eels particularly susceptible to both over-fishing and habitat destruction or obstruction, such as the construction of dams (ASMFC 2000; [picture] USFWS 2006a).

Life History: American eels spawn in the Sargasso Sea between the Azores and the West Indies, and thus all are very similar genetically. After hatching, larvae float and drift for roughly a year until they develop into glass eels, and migrate into fresh water. Once they reach fresh water, young eels are called elvers, and at this point they develop pigmentation, eventually turning into yellow eels then silver eels as adults. When they reach the silver eel stage, American eels migrate back to the Sargasso Sea to spawn and eventually die. Eels may spend anywhere from 10 to 40 years in freshwater before returning to spawn (USFWS 2006a). American eels may grow to lengths of over 1 meter (FishBase 2006).

Means and Time of Introduction: The American eel is native to the eastern United States (USFWS 2006a). It spreads easily because of its hardiness, its ability to travel short distances over moist ground, and its tolerance of pollution, and thus can even be found in many land-locked lakes (Facey and Van Den Avyle 1987).

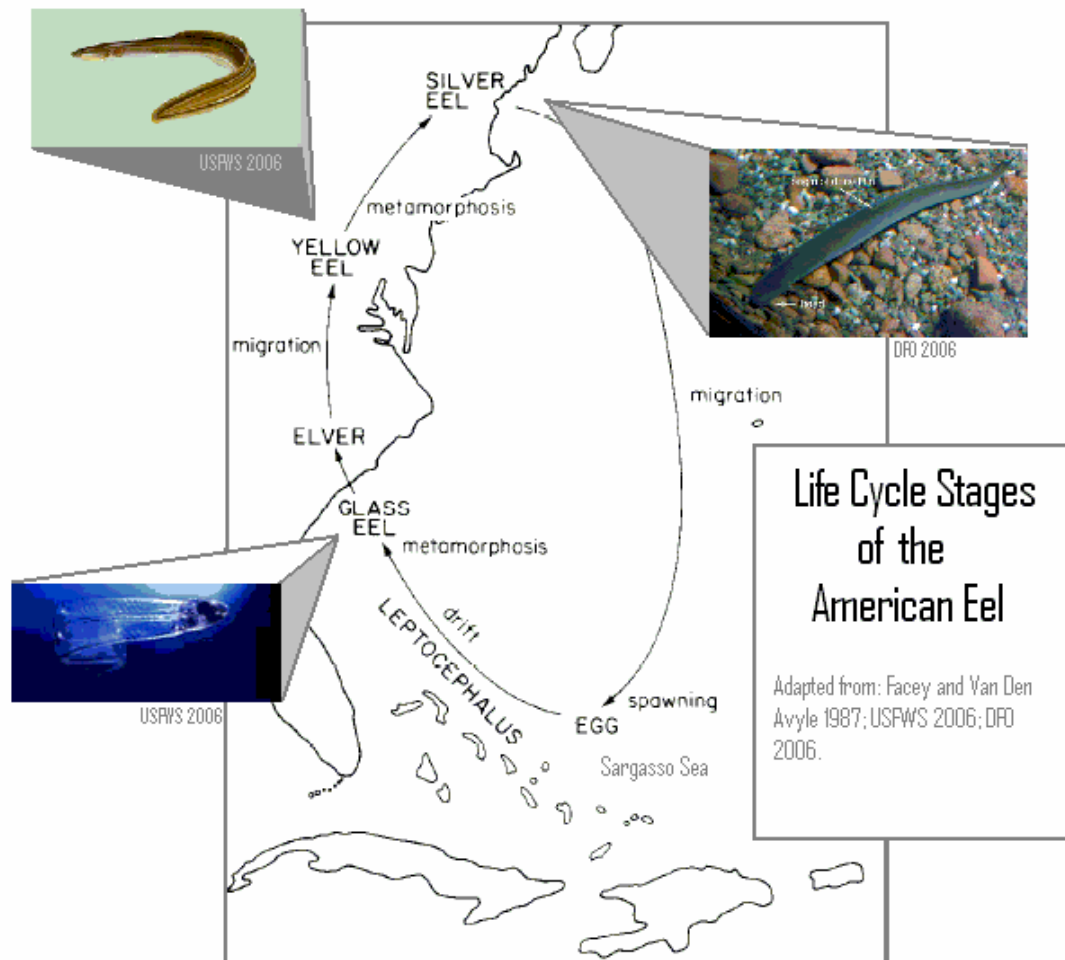
Origin: Although the spawning area remained a mystery, both the American and European eels spawn in the Sargasso Sea in the 1920s. There are 15 species of eels recognized worldwide with two in the North Atlantic (*Anguilla rostrata* in the U.S. and *A. anguilla* in Europe) (DFO 2006).

North American Distribution: American eels can be found all along the Atlantic coast from Greenland to northern South America, in major rivers, streams, and occasionally lakes (Facey and Van Den Avyle 1987).

Habitat: American eel habitats range from warm freshwater rivers and lakes to coastal brackish areas to the open ocean, to cold trout streams (Facey and Van Den Avyle 1987). American eels can tolerate temperatures from 4 to 25 °C (FishBase 2006).

Ecological Impacts: American eel populations have declined by as much as 99% in the last 20 years due to hydropower plants, over-fishing, and other unknown causes (USFWS 2006b). Many American eels have also been infected with the *Anguillicola crassus* parasite, brought to the United States by Japanese eels. The parasite destroys the eel's swim bladder. The American eel has been considered for protection under the Endangered Species Act (USFWS 2006b).

Economic Impacts: Glass eels have become a delicacy in Asia, and as such there is a large demand for harvested glass eels. Some states have restrictions and bans to protect American eels (USFWS 2006b). The annual harvest of American eels, although declining, has a value on the order of \$5 million (ASMFC 2000).



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