



European “Glass” Eels

Taken from Mia Donnelly’s 2018 work, *An Investigation into Water Quality and the Ecological Status of the Canal System Present in Galway City, in Addition to the concentrations of Heavy Metals Present in the Claddagh Basin and Eglinton Canal*

During sampling of the benthic habitat of the Gaol River and St. Clare river, four separate specimens of critically endangered European Eel were found. Once the eels were identified they were promptly released back to their habitat. Since the 1980’s European Eel or commonly known as glass eels have experienced a decline in recruitment, currently 1 to 5% of elvers (juvenile eels) reach maturity each year showing a 95 to 99% decline in population. European Eel begin their life cycles as eggs in the Sargasso Sea, which is an area of the Atlantic Ocean dominated by free floating seaweed known as Sargassum that provides shelter for many juvenile species (Oceanservice.noaa.gov, 2018; Maes&Volckaert, 2007). From here the larva spend one year traveling on ocean currents to freshwater habitats in Europe where they metamorphose into 'glass eels'. When eel reach maturity they migrate back to Sargasso Sea to spawn (Maes&Volckaert, 2007). The precise cause of decline of the European Eel is unclear, with many blaming overfishing of eel, the presence of dams on most large rivers which is disturbing migration routes and the increase in numbers of predators (IUCN, 2018; IFI, 2018; Ec.europa.,2005).

As stocks of European Eel continue to decline the European Commission have enacted the national eel management plan for EU countries, in Ireland this plan must be implemented by the 1st July 2009 (IFI, 2018). This accompanied by EU legislation, such as the WFD propose that 40% of adult eel must be allowed to escape freshwater habitats and return to the marine environment to spawn ([WFD] (2000/60/EC; Ec.europa.,2005). EU member states with eel habitats are currently implementing the eel management plan at river basin level to reduce

recreational fishing of eel and to ensure migratory pathway are not obstructed (IUCN, 2018; Ec.europa.,2005).

The European eel is listed on Annex II of CITES (Convention on International Trade in Endangered Species). This states that the trade of European Eel from in or out of European states is strictly prohibited (cites.org.,2018). In Ireland bye-laws prohibit the commercial fishing, selling or processing of European eel (IFI, 2018).

To learn more, [click here](#) to read Mia Donnelly's work.