

RIVER LAMPREY (*LAMPETRA FLUVIATILIS*)



WHAT IS A LAMPREY?



Lampreys (*Petromyzontidae*) are some of the most primitive vertebrates alive today being over 360 million years old. They are known as cyclostomes ('round mouths') which refers to the fact that they are jawless, having instead a round sucker-like mouth. Another interesting feature is that the skeleton of a lamprey consists of cartilage (like sharks and rays) and not bone (like many other fishes e.g. salmon, trout, etc.). There are 3 species of lamprey in Ireland (river lamprey *Lampetra fluviatilis*, brook lamprey *Lampetra planeri* and the sea lamprey *Petromyzon marinus*). There is also a 'dwarf' form of the sea lamprey which is found in a number of lakes (L. Derg, L. Conn, L. Cullin and L. Corrib, some Killarney lakes) around Ireland. River lamprey adults live in estuaries/marine environment migrating into freshwater to spawn where their larvae live in soft stream sediments. There has long been debate as to whether or not river lamprey and brook lamprey are in fact the same species. It now seems that brook lamprey may have evolved from river lamprey populations that were left behind in refuge areas throughout Ireland during the last glacial maximum (i.e. last time when ice sheets would have covered much of the country and rivers and lakes would have frozen). That is why brook lamprey look like mini river lamprey!

RIVER LAMPREY IN IRELAND

River lamprey enter Irish rivers every year to spawn. They migrate upriver from the sea/estuary until they find suitable spawning habitat. Like the other native lamprey species, spawning behaviour is triggered by rising temperatures in the river and usually occurs in March/April each year with the adult fish dying immediately afterwards. On their return to freshwater they begin to construct large spawning nests in shallow, fast-flowing stony sections of channel. Lampreys move cobbles and stones with their mouths to excavate a nest, which is a bowl-like structure. Although we know some of the places that lamprey like to spawn, we need to gather more information about the other spawning sites in Ireland and get a better idea of how the population is doing so that we can make sure they get the protection they need. We urgently need YOUR help to do this!



HOW DO I IDENTIFY A RIVER LAMPREY?

River lampreys are an eel-like fish which can be up to 35cm long and mottled brown/grey in colour on their upper side. They are characterised by having a sucker-like mouth instead of jaws. Lampreys are similar in shape to eels but also have a series of uncovered round



Sea lamprey mouth (left) and River lamprey mouth (right)

gill openings (known as gill pores) on the sides of the head and a single nostril on the upper surface of the head. Lampreys can be easily told apart from eels by the two dorsal fins on their backs. Adult river lampreys can easily be distinguished from adult sea lampreys by the pattern of teeth in their mouths and the difference in size (sea lampreys can be up to 1m in length). However, it can be more difficult to tell adult river lampreys apart from adult brook lampreys. Brook lamprey adults are generally much smaller than river lampreys (approx. 15cm Vs 35 cm) and are more likely to be found in larger rivers. Also, adult brook lampreys are generally only found higher up a river catchment in smaller rivers/streams. Brook lampreys do not have sharp teeth like river lampreys so you can try running your finger over their mouth.....but if you don't fancy doing that, the easiest thing to do is to get in touch with Rare Fish Reporter (see details below) and we can help you figure out what you are seeing!

HOW CAN I HELP?

Please let us know if; 1) **You see River lamprey spawning** (or any nests- see our nest identification information sheet) in any river in Ireland or 2) **You see any River lamprey in any river in Ireland.**



You can send us information by visiting our website www.ucd.ie/rarefishreporter, or emailing us with a picture, date and description of your exact location and how many fish/nests you are seeing - rarefishreporter@gmail.com



Rare Fish Reporter