

WILDLIFE FACTFLIE: Lamprey

The lamprey is the most primitive of all living vertebrates and there are three species in Britain, all of which can be found in the Ribble catchment. These three species are the river lamprey (*Lampetra fluviatilis*), brook lamprey (*Lampetra planeri*) and sea lamprey (*Petromyzon marinus*). Lampreys have no lower jaws and the mouth is surrounded by a round, sucker-like disc within which are strong rasping teeth. They are eel-like in shape but have no paired fins or scales and all skeletal structures are made up of strong flexible cartilage. Lampreys have only one nostril, situated on the top of their head just in front of the eyes, and gills which form a row of seven open pores on each side of the head.

Most lamprey species have a similar life cycle, beginning with adults migrating upstream to reach spawning areas – stony or gravelly stretches of running water. Here, they create shallow depressions in the riverbed and lay their eggs in them. These nests are often in the open in shallow water so spawning adults are very vulnerable to predators. After hatching, the young larvae (ammocoetes) swim or are washed downstream to areas of sandy silt in still water where they burrow and spend the next few years living in tunnels. Ammocoetes are blind and feed by creating a current that draws organic particles and tiny plants towards them. Metamorphosis from larva to adult usually only takes a few weeks. During this process, the rim of the mouth develops into a full sucker, inside which are the rasping teeth, skin becomes much more silvery and the lamprey has proper vision for the first time – although sight is often poor. The adult lamprey migrate downstream, away from the nursery areas. Some species of lamprey, the brook lamprey included, never feed as adults. After metamorphosing, they spawn and then die. Most species, however, prey on various fish by attaching themselves to the side of the fish and rasping away at the skin. The prey may never recover from such an attack. On reaching sexual maturity, adult lampreys stop feeding and migrate back to their spawning stream, where they spawn and then die.

Lampreys are not strong swimmers so migration barriers, such as weirs, can be a real problem to them. A clear migration route is important to all lamprey species, but barriers pose a particular threat to river and sea lamprey. Good water and substrate quality is important for all lamprey species, and all species are threatened throughout their range by habitat degradation.

