

## Sea lamprey

### ***Petromyzon marinus*, Linnaeus, 1758**

#### **Species description**

Sea lamprey is a jawless fish (Agnata) from the northern lamprey family (Petromyzontidae). It has a very specific body shape. Sea lamprey has an elongated, eel-like body with its head possessing a mouth disc with the diameter larger than the cross-section of its gills section. Numerous tooth hooks are located in rows on the disc. On both sides of the mouth, it has two pairs of two-cusp teeth. It has one arched tail fin and two dorsal fins that relocate closer to each other during spawning. A mature individual is dark brown, has a marbled back and dark sides. Larvae of sea lamprey are vermiform (Holcik 1986, Witkowski 2000 and 2001). Mature individual can be mistaken with eel (*Anguilla anguilla*), but eel, unlike sea lampreys, has pectoral and pelvic fins.

Sea lamprey is on the list of animals being under strictly protection in Poland (Regulation of the Minister of the Environment of 6 October 2014 on the protection of animals species, Journal of Laws 2014, item 1348). It is also a species of the European Community interest and therefore it is listed in the Annex II of the Habitat Directive (Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora).

#### **Biology**

In order to spawn, lampreys migrate to coastal rivers. The migration starts in late autumn with intensification in spring. The migration distance varies from 20 to 850 km. It is a monogamous species. Females deposit a large number of eggs (150-300 thousands) in nests made by males. A few days after spawning adult individuals die. Sea lampreys spend 6-8 years in freshwaters and larvae transform into their final phase (Manion and Hansen 1980). In May, when young lampreys migrate to the sea they undergo a metamorphosis. The dorsal side becomes grey-blue, the sides gain a metallic coloration, and ventral side becomes silvery-white. In the sea, due to the parasitic nutrition, they actively prey on other fish species. Sea lampreys are also predators that mainly attack Clupeidae, e.g. herring, sprat, allis shad, twait shad; Gadidae e.g. cod, haddock, saithe as well as sturgeon, sea trout and salmon. A large population of lamprey may pose a threat to other economically valuable fish species (Beamish 1980).

#### **Habitat**

Habitat preferences depend on the age and development stage of the sea lamprey. Larvae live in the central course of the river. juveniles stay in the coastal part of the sea and in estuaries, while the larger individuals can be found a few or a few dozen kilometres away from the coast, at a depth of 650 m. During the day sea lampreys stay hidden in the shadowed areas.

## Surface monitoring

Category: Fish fauna - species

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## Distribution

Sea lamprey is widespread in the North Atlantic Ocean. In Polish waters, it is the least frequently encountered species of lamprey. It is occasionally recorded in Polish inland waters and the mouth of the Vistula and the Odra Rivers (Penczak 1964).

Sea lamprey is monitored, within the framework of the project "Pilot monitoring studies of marine habitats and protected species in 2015-2018", at 10 sites:

- Pasłęka,
- Bauda,
- Wierzyca,
- Reda,
- Chełst,
- Łeba,
- Wieprza/Grabowa,
- Rega,
- Wołcznica,
- Ina/Krąpiel.

## References

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