

Freshwater pearl mussel

(*Margaritifera margaritifera*)

One of the three target species for Rivers of LIFE is the freshwater pearl mussel. The mussels are currently highly endangered due to factors such as historical pearl fishing, deteriorated water quality, degraded habitats, and a reduced number of host fish.

Species description

Freshwater pearl mussels can reach a length of 16 cm and live up to 280 years. The exterior of the mussel is nearly black, while the inside of the shell is covered with nacre. Mussels live partly buried in the substrate, ranging from small flowing streams to large rivers and lakes.

The freshwater pearl mussel is a filter feeder, meaning they pump water through their bodies to obtain oxygen and food. Their diet consists of small particles in the water, such as plant debris, bacteria, and algae.



Reproduction and dispersal methods

During reproduction, the female mussel releases larvae into the water. The larvae are carried by the current to the gills of trout or salmon. There, they attach themselves and live as parasites on the fish. When the mussel larva has developed into a small mussel (about 0.5 mm), it releases its grip on the fish's gills and hides in the gravel at the bottom. When it is large enough not to be eaten, it crawls up from the gravel.

Out of 100 million mussel larvae, on average, only one will survive and develop into an adult mussel. The rest of the mussel larvae and small mussels become prey for other animals in the waterway.

History

The freshwater pearl mussel can, in rare cases, form pearls. Margaritifera means pearl bearer or pearl producer. Since 1994, fishing for river pearl mussels has been prohibited. Pearls from freshwater pearl mussels can be found, among other places, in royal regalia.

Pearl fishers have recounted that in the 1940s, one could catch and kill 2,000 to 3,000 river pearl mussels in a day but only find a single valuable pearl.



Clean water

The freshwater pearl mussel has high demands on its habitat. If there is a population of mussels reproducing, it indicates that the environment is also suitable for many other species. The mussels themselves contribute to the healthy water environment by purifying the water as they filter it to obtain nutrients.