## Target species

LIFE CONNECTS aims to restore habitats and ecosystems in seven rivers in Southern Sweden in order to promote the populations of the projects target species.

### Humans

Rivers and streams are no longer a natural part of our everyday life. LIFE CONNECTS aim to increase the knowledge and understanding of river ecosystems and what services they provide for us. Furthermore, about how we can protect them and improve their status through river restoration.

### Salmon

The Atlantic salmon is dependent on free-flowing rivers for its migration, to fulfill its lifecycle and reproduction. In LIFE CONNECTS barriers will be removed and habitats restored so salmon can reach their spawning- and rearing areas.

### Eel

The European eel is a threatened species and is dependent of free-flowing rivers for their migration from and to the ocean. The removal of barriers in LIFE CONNECTS will benefit eel populations.

### Freshwater pearl mussel

The  mussel is an endangered species and LIFE CONNECTS will restore rivers and reintroduce mussels in some rivers to improve mussel population and their conservations status.

## Project partners

Länsstyrelsen Skåne

Länsstyrelsen Kalmar län

Karlstads Universitet

Havs och Vatten myndigheten

SportFiskarna

uniper

Klippans kommun

LIFE CONNECTS collaborates with municipalities, NGO´s, authorities, stakeholders and many more.

## Contact

**www.lifeconnects.se**

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Photos: Salmon and eel, Jörgen Wiklund; Mussel, Jakob Bergengren. Other pictures, project partners.

Life

NATURA 2000




LIFE CONNECTS aim to improve river ecosystems in seven rivers in Southern Sweden and eventually the Baltic sea. This restoration will benefit society, biodiversity and sustainable use of our rivers.

# LIFE CONNECTS

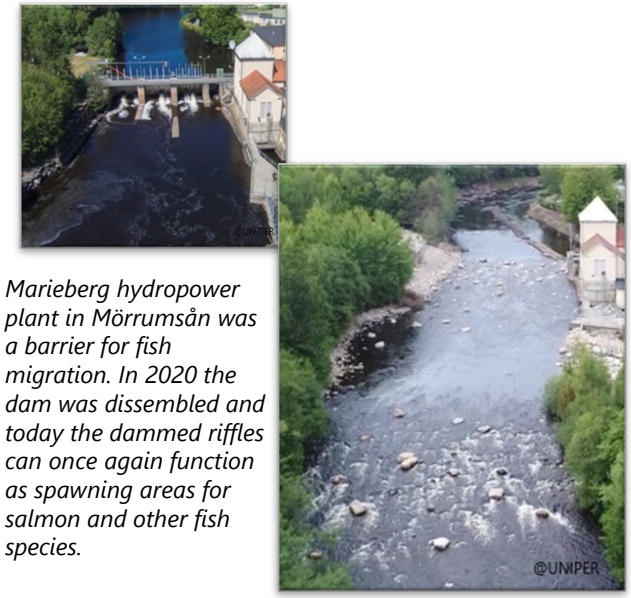
LIFE CONNECTS aim to restore river ecosystem services that will have positive effects on biodiversity, water quality and fish production in seven rivers in Southern Sweden. The threatened mussel species thick-shelled river mussel (*Unio crassus*) and freshwater pearl mussel (*Margaritifera margaritifera*) together with the fish species Atlantic salmon (*Salmo salar*) and European eel *(Anguilla anguilla*) are our target species for this unique project. If we can help these species to thrive again in these rivers the project will be successful in increasing biodiversity and improving water quality as a result.

## Activities

LIFE CONNECTS includes river restoration measures as well as information and communication (outreach) activities. It also includes monitoring to follow the effects of the restorations.

### Free flowing rivers

Within the project four hydropower plants, where the environmental benefits exceed the loss of energy production, will be dismantled. At one hydropower plant a fish-friendly turbine, so called "fishscrew", will be installed. In addition, several smaller barriers will be removed and fish passages solutions installed.




*Marieberg hydropower plant in Mörrumsån was a barrier for fish migration. In 2020 the dam was dissembled and today the dammed riffles can once again function as spawning areas for salmon and other fish species.*

### River restoration

LIFE CONNECTS includes different types of habitat restoration. Many river stretches have been dredged and cleared of larger substrate. To regain a more natural river habitat missing substrate is reintroduced to the river. A more diverse riverbed promotes biodiversity and benefits mussels and other aquatic organisms in the river.

*A barrier that has been removed and larger substrate reintroduced into the river. Today fish and other organisms can migrate freely and spawning areas have returned.*

### Communication and education

LIFE CONNECTS aims to increase the understanding and awareness of river ecosystems and why river restoration is needed to achieve sustainable water management of our rivers. We have done this by arranging school activities, "walk-and talks", workshops and conferences. An important target group is children and young adults.

### Monitoring

In order to follow the effects of river restoration, monitoring is an important part of the project. The effects are investigated for water chemistry, hydrology, biology and socio-economics before and after restoration. Several universities are involved in the project doing research on fish migration, mussel populations, invertebrates, macrophytes and sediment transport to the sea.

*As part of the monitoring in LIFE CONNECTS the fish populations in the riversare investigated before and after restorations. In the picture a juvenile brown trout (Salmo trutta) is measured.*

## Project rivers

LIFE CONNECTS conducts river restoration in seven rivers in Southern Sweden (map below). The goal is for all rivers to improve fish migration and habitat quality for fish and mussels.

**Rönne å** - three hydropower plants will be dismantled, smaller barriers removed and habitats will be restored. Thick-shelled river mussels and freshwater pearl mussels will be reintroduced to river sections where the species has disappeared or are in very low numbers.

**Verkeån** - smaller barriers will be removed and habitats will be restored. Thick-shelled river mussels have historically been present in the river and will be reintroduced.

**Helge å** - smaller barriers will be removed and habitats will be restored. Both mussel species are present in the river and in sections where they have disappeared reintroductions will be done.

**Mörrumsån** - one hydropower plant has been dismantled, smaller barriers will be removed and habitats restored.

**Alsterån** - smaller barriers will be removed and habitats will be restored.

**Emån** - a fish-friendly turbine, so called "fishscrew" will be installed at one hydropower plant. Smaller barriers will be removed and habitats will be restored.

**Virån** – smaller barriers will be removed and habitats will be restored.