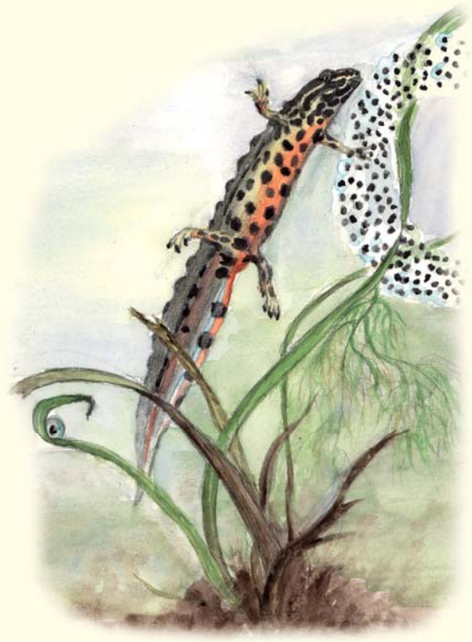
Wetlands

Wetlands have several important functions in the landscape. They take care of nutrients in a natural way and lessen the effects of flooding. Many animals and plants that have become rare in today's landscape, when natural wetlands are drained for agriculture, thrive near the remaining healthy water courses.

Water quality and biodiversity are promoted and erosion decreases when wetlands are created. They are also valuable for recreation and outdoor activities.

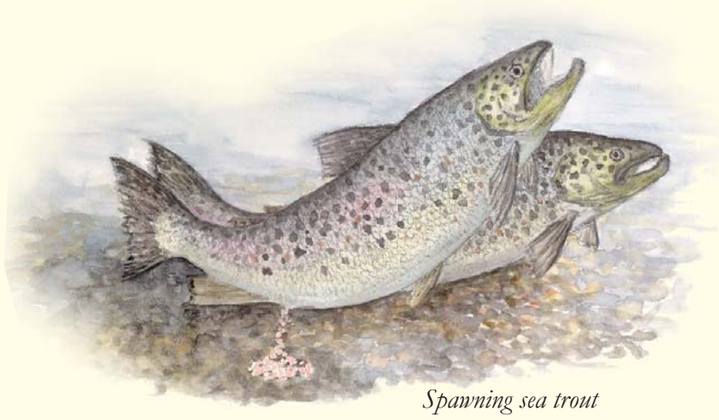


The amount of amphibians was greatly reduced during the 1900s when the landscape was drained. With wetlands now re-created they get a chance to return.
The smaller water-salamander is found in several of the Tullstorps streams new wetlands.

Caring for habitats and fish

Fine areas of fast flowing water were destroyed when clearing out the ditches in the watercourse. Some of these areas can be recreated by placing stones and gravel in the stream and provide a positive environment for the insect life and for the sea trout which wander up the stream. The trouts are dependent on the gravel for spawning and growing large enough before migrating to the sea where they reach their full size.

Sea trout menu: mayflies, caddisflies, freshwater staples, chironomid larvae.



Spawning sea trout

Newly hatched trout dig themselves out of the gravel.

A river that is unrestored

Levelling the banks and planting trees

Digging out the banks gives the stream a wider, flatter and more natural appearance. The result of this is that the water can flow more freely and the risk of flooding and erosion decreases. An additional effect is that more habitats are created in and around the watercourse. Tree planting is another important action to enhance the insect and animal life in the watercourse and to provide higher levels of oxygen in the water. In addition to this the shade from the trees restrains the amount of undergrowth which in its turn diminishes the need for clearing out the stream.

Tree Planting

Planting of trees is another important measure that contributes to the wildlife in the river, as well as to higher oxygen content in the water. Shade from trees inhibits the growth of vegetation, which reduces the need for clearing and maintainance considerably.

Edge sanding in one step

Lemon spotted White-faced Darter

The Tullstorp Stream Project flows on

In 2009, The Tullstorp stream project created a holistic approach to manage a 30km long stream. It would regain its old, more winding path and numerous wetlands would be built. It was a pilot project with potential to inspire and guide others.

And they have succeeded! In 2014, 5 years later, sunlight glisten on the surfaces of more than 30 newly constructed wetlands. The river flows smoothly and meander through the countryside, surrounded by a green buffer zone of grass, shrubs and trees.

You can already see results in water quality, as an example. The Water Framework Directive classification has improved from bad to moderate. In other words, more and more plants and animals are thriving in and around the Tullstorp stream.

Ripple effect

The Tullstorp stream provides a blue and green path through otherwise inaccessible arable fields. It creates opportunities for outdoor recreation and tourism. The plans are to create an information and visitor center, where people can learn more about the wildlife, geology and cultural history of the surrounding area.

Shelducks

Re-meandering

The shape and form of water courses have been altered dramatically in order to enhance agriculture production. As an effect, many valuable habitats and their functions have been lost. By constructing a meandering water course, a natural variation rich in micro habitats can be recreated. The meandering also contributes to less erosion and reduced transport of nutrients.

Flooding areas

Many water courses in farming landscapes are characterised by rapid flows, surrounding erosion and transport of large quantities of nutrients. These problems can be mitigated if the water course is allowed to flood low-lying, surrounding areas. The flooded areas can then become productive grazing areas and harbour valuable flora and fauna.

Avocet

Project information

The Tullstorp Stream Project is unique in that it is operated by an association of which all landowners along the stream are members. The project takes a holistic approach to the entire 6300 ha catchment area. One of the overall goals is to reduce the amount of nutrient's flowing into the Baltic Sea. Bycreating around 50 wetlands in catchment area of the Tullstorp Stream and restoring the water environment of the stream the targets are to:

- decrease the addition of nutrients to the Baltic Sea with 80 tonnes/year of nitrogen with 2.1 tonnes/year of phosphorus
- mitigate erosion and flooding
- reduce the need for clearing out the stream
- recreate a valuable fish community
- promote biodiversity
- improve cultivation and land yield
- attain good water status according to the Water Framework Directive

Tullstorpsån Ekonomisk Förening
Support the association, pay 50 SEK to bank giro 397-0936 and you will be a member.

If you want to learn more:
www.tullstorpsan.se

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The European Agricultural Fund for Rural Development: Europe investing in rural areas

Tullstorpsåprojektet från källa till mynning

The Tullstorp Stream Project

from source to recipient

A unique restoration project

Welcome to the Tullstorp stream!

In a long-term environmental project ancient wetlands along the Tullstorp stream are being restored, from the source at Alstad to Skateholm.

The project aims to capture nitrogen and phosphorus from farmland, thus preventing it from reaching the sea, whilst reducing the need for maintenance and helping to address flooding problems.

Additionally, erosion is reduced, valuable fish communites are recreated, biological diversity is increased whilst recreation and outdoor activities are encouraged.

If you want to see how it looks you are welcome to our viewing position at Jordberga, where illustrated information boards are also located.

Facts about the Tullstorp stream:

Catchment area: 63 km2

Length: 30 km

Nitrogen Transport: 250 tons / year

Phosphorus Transport: 4 tons / year

Status Class: Moderate (Water Framework Directive)

Number of properties: around 150 along the watercourse

Redshank

If the grass is grazed and kept short, shorebirds such as lapwings and redshanks can thrive at the wetland. It provides a smooth transition between land and water where they can find food.

Lapwing

1 Börringe Mad

Börringe Mad is a 20 ha landscaped wetland at the village of Grönalund. It lies within an area of national interest for outdoor recreation, cultural and nature conservation. The natural values are high, with the remains of an ancient coppice; Sorby kratt, which used to take firewood, materials for fencing and feed to their animals. Wetland area is grazed by cattle and the water from the pond flows past Grönalund through a newly built stream.

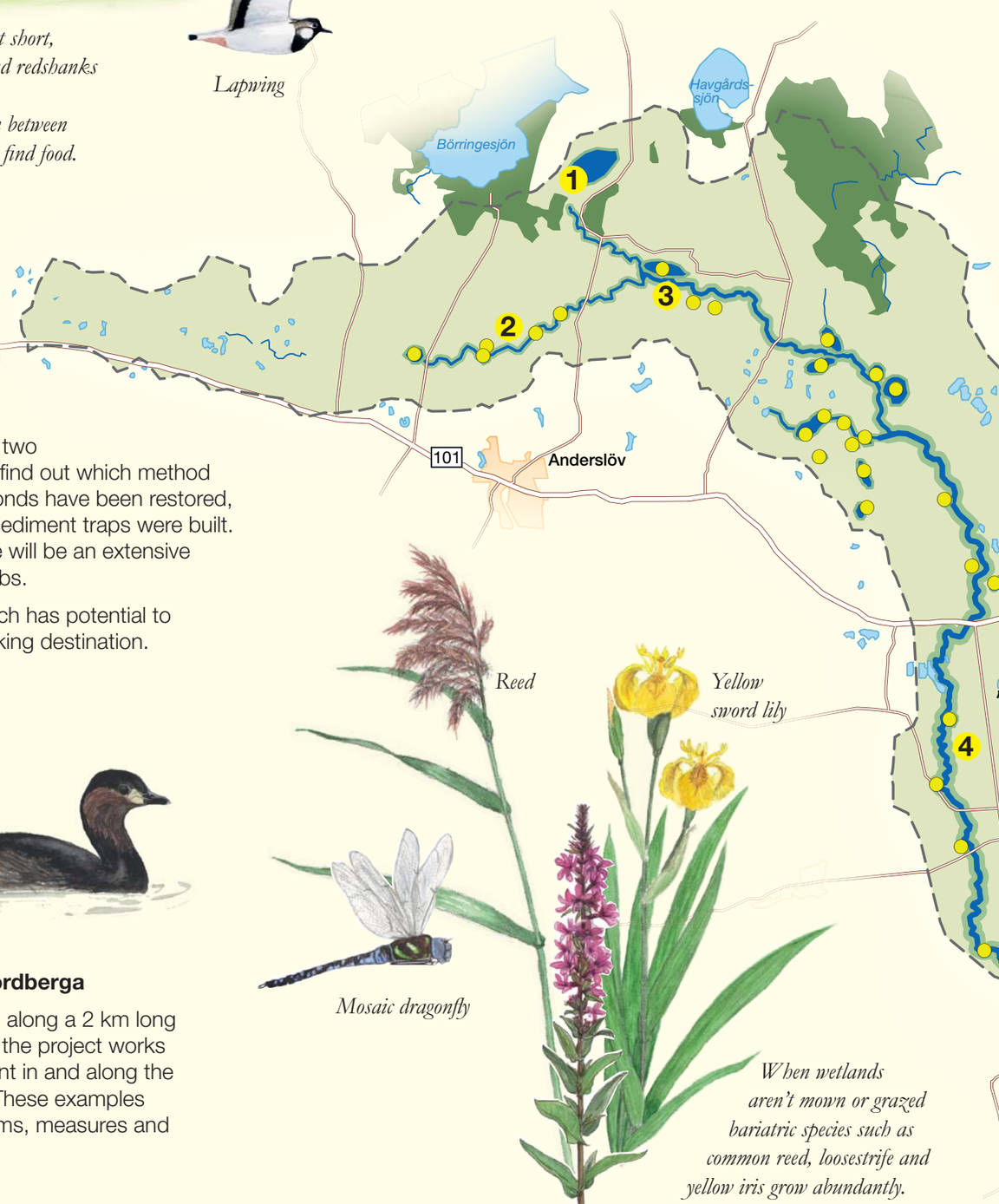
Since the construction of the wetland, it has become a popular area for walks and excursions.

There are plans to build a viewing platform, seating areas, shelters and information signs about interesting natural and cultural objects.

Nightingale

Bee on blooming willow

The sallow often grows adjacent to wetlands and streams. It blooms in early spring and is therefore important for all newly awakened insects who want an invigorating breakfast of pollen and sweet nectar.



- Wetlands within the project
- Water meadow
- Existing wetland
- Catchment area
- Sidezone
- Forrest

2 Ålholmen

Just north of Anderslöv, on the properties Stora Markie and Stävesjö, a 2 km stretch of the Tullstorp stream has been partially restored.

This is a pilot area to test different configurations of two stage ditches, in order to find out which method is optimal. The existing ponds have been restored, while new wetlands and sediment traps were built. In 2014 and beyond there will be an extensive planting of trees and shrubs.

Trails lead to the area which has potential to become an attractive walking destination.

Reed

Yellow sword lily

Loosestrife

Mosaic dragonfly

Little Grebe

When wetlands aren't mown or grazed bariatric species such as common reed, loosestrife and yellow iris grow abundantly.

3 Sörby Kjöse and Skönadal Wetlands

The overall purpose of the wetland at Sörby Kjöse is to buffer the water at times of very high flow in the river. Otherwise the large masses of water trigger erosion, which is one of the main reasons for nutrient transport in the stream.

Just downstream is Skönadal wetlands which consists of two newly constructed wetlands and restored ponds. Diverse plant and bird life can be found here. There are plans to build a walking trail in the surroundings and put up information boards that highlight the area's natural values and cultural history.

4 Viewing distance - Jordberga

West of Jordberga castle, along a 2 km long stretch, examples of how the project works to improve the environment in and along the watercourse are shown. These examples give information on the aims, measures and functions of the project.

5 Sånarps wetlands

East of Lilla Beddinge two wetlands have been constructed on Sånarp. The larger, to the south located along the river, is 200 m long and a popular area for shorebirds such as lapwing and oystercatchers.

6 Beddinge meadows and meadow watering

This low-lying area, currently occupied as pasture, is a unique remnant of an older flood irrigation system, known as meadow watering. The system is one of the best preserved in Skåne with clear traces of ditches, rocks and concrete pillars that marked ownership boundaries. The meadow watering system was built in 1881 and was in use until 1958. Within the Tullstorp stream project there has been a proposal for the restoration of meadow watering and, after consultation with property owners and the County Board, this will go ahead. Different types of ditches will be constructed so that they form a drainage system similar to the meadow watering system.

Bird life on Beddinge meadows is very rich and species depend on wet and damp meadows as a sanctuary. The meadows are important resting sites for migratory birds and as a breeding habitat for many species.

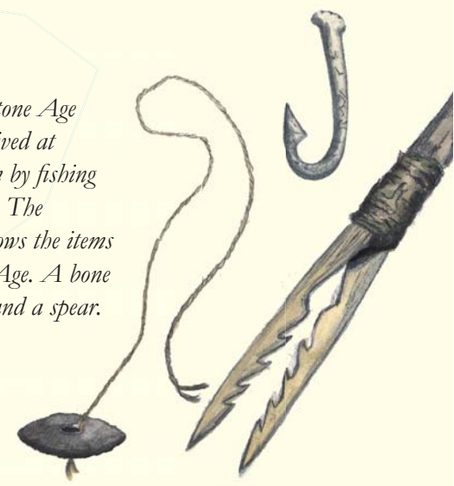
7 Wetland at Skateholm habitations

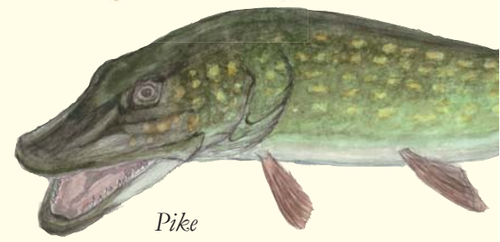
In the lower part of its course the stream passes the "Skateholm habitations". 7000 years ago a Stone Age society that relied on fishing and the gathering of berries and plants was living here.

By building a wetland and river meanders the Tullstorp stream project can partially restore this historic landscape.

Information activities of the area's exciting history are planned in collaboration with the local government and the Trelleborg Museum.

The Stone Age people lived at Skateholm by fishing and hunting. The illustrations shows the items from the Stone Age. A bone hook, a sinker and a spear.





Pike

Yellow wagtail

Snipe

Lapwing chick