
WETLANDS

WHAT ARE WETLANDS?

Wetlands are areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season. Water saturation (hydrology) largely determines how the soil develops and the types of plant and animal communities living in and on the soil. Wetlands may support both aquatic and terrestrial species. The prolonged presence of water creates conditions that favor the growth of specially adapted plants (hydrophytes) and promote the development of characteristic wetland (hydric) soils.

WHAT ARE WETLANDS' FUNCTION IN THE ECOSYSTEM?

Wetlands have plenty of functions, working to benefit every living being on Earth. Firstly, they provide food and habitat for fish and wildlife, including threatened and endangered species! Moreover they improve the quality of the water by acting as natural filters. They also help prevent floods by storing water along with keeping shoreline erosion under control. In addition, wetlands have economical benefits by being sources of natural products for human use. Furthermore they give us opportunities for recreation, education, and research. Lastly and more importantly, wetlands have a unique ability to store carbon thus playing a major role in the fight against climate change.

SWEDISH WETLAND TYPES

Wetlands vary widely because of regional and local differences in soils, topography, climate, hydrology, water chemistry, vegetation and other factors, including human disturbance. Two general categories of wetlands are coastal or tidal wetlands and inland or non-tidal wetlands.

Based on remote sensing, all Swedish wetlands were classified into one of the 47 different wetland types. Based on the spatial extent of wetland types, Sweden has been divided into five different marsh/bog-regions: Fell bog, Palsa bog, String bog, Raised bog and Pine bog/Beach wetland bog.

PLANTS IN SWEDISH WETLANDS

Bogs and fens make up about seven percent of the national park's land area and usually lie in some of the many long, narrow valleys that exist. Often there is a lake in the valley that is surrounded in the north and south by fens and swamps, which sometimes also are covered with pine and spruce trees.

On many hillsides sloping down towards the swamps, there are hillside fens where purple moor-grass predominates. In the swamps, hare's-tail cottongrass, deergrass, cloudberries and cross-leaved heath grow, and in some places you can find the bog asphodel western species that at the beginning of high summer lights up the swamps with its yellow flowers and light green leaves.

In the zones between bog and lake, purple moor-grass, sweet gale, star sedge, common sedge, tormentil and moorland spotted orchid often grow. Sprig-like plants are most common in the transition zone between bog and lake. There you often find bog bilberry, bilberry and sweet gale.

ANIMALS IN SWEDISH WETLANDS

Some of the animals that inhabit Swedish wetlands are Beavers, Eurasian otters, Ospreys, Common frogs, White wagtails, Black-headed gulls, Common cranes, Common toads, Eurasian beavers, Cormorants and more.

GREAT CORMORANT

WHITE WAGTAIL

OSPREY

EURASIAN BEAVER

EURASION OTTER

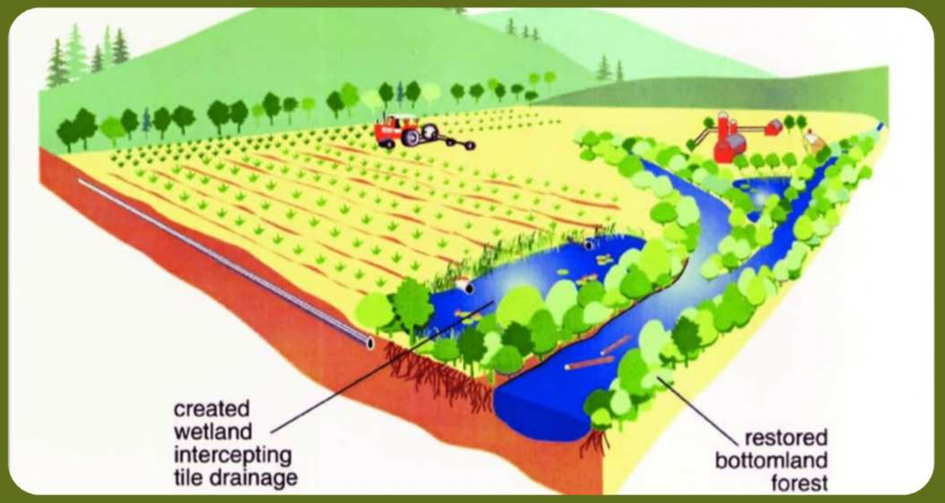
BLACK HEADED GULL

WHICH THREATS ARE WETLANDS IN SWEDEN FACING?

Wetlands in Sweden, like many around the world, face several threats primarily driven by human activities. These threats have significant impacts on the ecology of wetlands, which are crucial for biodiversity, water regulation, and carbon sequestration.

WHICH THREATS ARE WETLANDS IN SWEDEN FACING?

- **Drainage for agriculture/forestry**: Wetlands are drained for farming or forestry, altering hydrology and causing habitat loss.

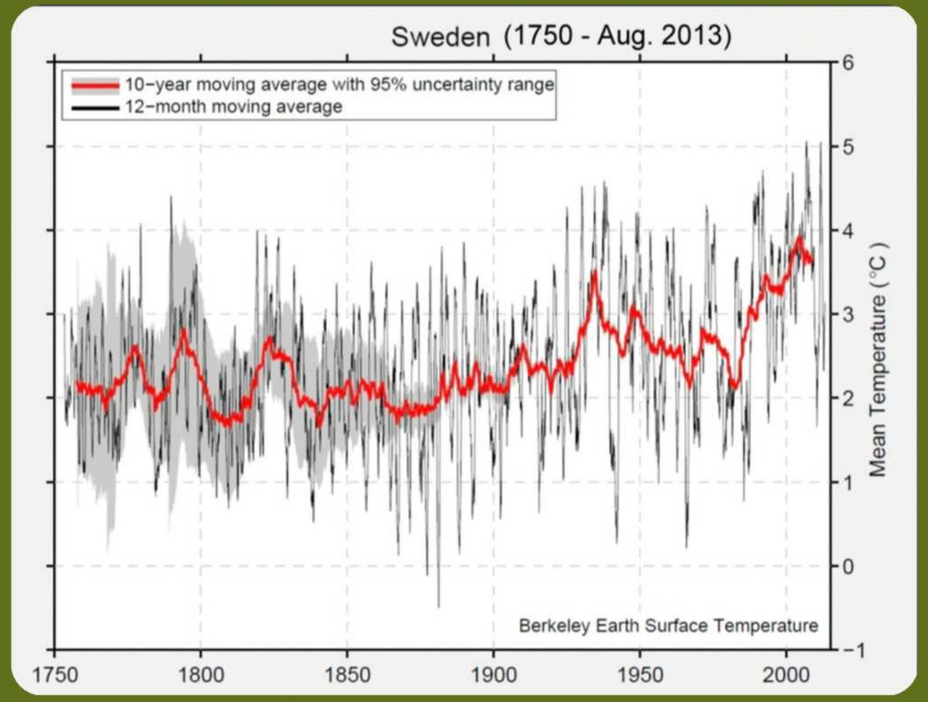


WHICH THREATS ARE WETLANDS IN SWEDEN FACING?

- **Peat Extraction**: Peat harvesting for fuel and horticulture destroys habitats, releases carbon, and disrupts water systems.

WHICH THREATS ARE WETLANDS IN SWEDEN FACING?

- **Climate Change**: Altered rainfall, rising temperatures, and sea-level rise threaten wetland ecosystems.



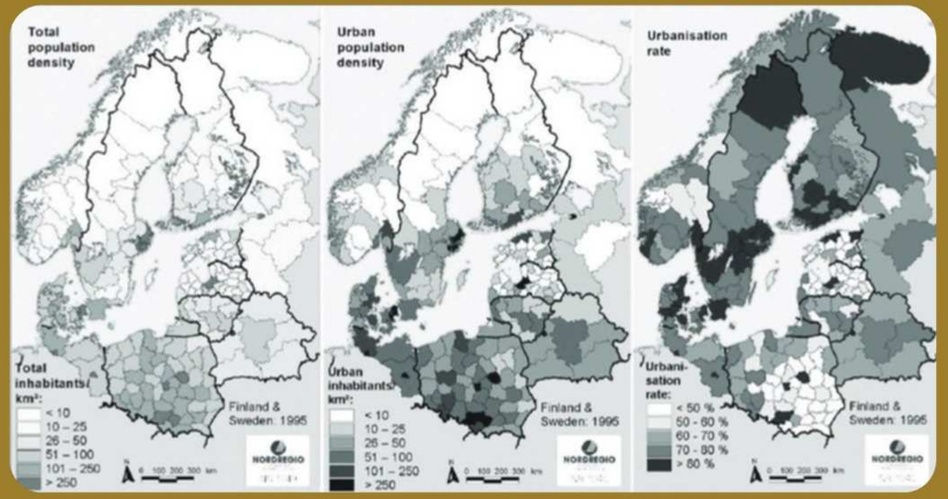
HOW ARE HUMAN ACTIVITIES AFFECTING WETLANDS` ECOLOGY?

Human activities severely impact wetlands through:

- **Pollution**: Agricultural runoff, industrial waste, and urban wastewater cause eutrophication and harm aquatic life.

HOW ARE HUMAN ACTIVITIES AFFECTING WETLANDS` ECOLOGY?

- **Urbanization**: Urban expansion and infrastructure destroy wetlands, fragmenting habitats.



HOW ARE HUMAN ACTIVITIES AFFECTING WETLANDS` ECOLOGY?

- **Invasive Species**: Human activities spread invasive species, outcompeting native flora and fauna.

HOW ARE HUMAN ACTIVITIES AFFECTING WETLANDS` ECOLOGY?

- **Habitat Destruction:** Draining for agriculture, urban development, or infrastructure disrupts water filtration, flood control, and carbon storage.

HOW ARE HUMAN ACTIVITIES AFFECTING WETLANDS` ECOLOGY?

- **Overexploitation:** Overuse of water, peat, or timber degrades wetlands, reducing their ecological functions.

WHAT IS BEING DONE TO PRESERVE AND RESTORE WETLANDS IN SWEDEN ?

- Life to admire Project
- Ånnsjön Restoration Efforts
- Färnebofjärden National Park
- Vindelfjällen Nature Reserve

HOW DOES CLIMATE CHANGE AFFECT SWEDISH WETLANDS AND THEIR BIOLOGICAL DIVERSITY?

- Rising sea levels
- Extreme weather
- Higher temperatures
- Carbon release from soil

TACK!!!

ΕΥΧΑΡΙΣΤΟΥΜΕ!!!

Obrigado!!!

Merci!!!