Life to a(d)mire

Mire and wetland restorations in Sweden

Importance and Role of Groundwater in Restoration

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What are peatlands and where are they found?

Peatlands are areas of land with a naturally accumulated layer of dead plant material (peat) formed under waterlogged conditions. Found across the Globe from the tropics to the poles, and in at least 175 countries, peatlands cover around 4 million km² or 3% of the world land area.

(Joosten et al. 2009).
WHY restore? Climate change aspect...

As a long term carbons store they are hugely important in climate change migration, removing carbon from the atmosphere and storing it in the peat under waterlogged conditions.

Drained peatlands are on the other hand a significant source of carbon emissions with less than 0.3% of the land area giving rise to almost 6% of total global anthropogenic CO2 emissions.

A quarter of the world’s soil carbon is held in peatlands.

The boreal and subartic peatlands alone contain 2-3 times more carbon than the world’s tropical rain forests. Healthy peatlands can continue absorbing carbon dioxide year after year, over millennia, and have a net cooling effect on the global climate.

However, a loss of just 1.5% of the world’s peatlands is equivalent to all the carbon emissions humans create worldwide in a year.

(Joosten et al. 2013).
WHY restore?

- Filtering and regulating the flow of water into streams and reservoirs
- Protect land from flooding
- Peatland wildlife
- Maintenance of global biodiversity
- "Outdoor rehab" trekking/hunting/fishing

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The project: Life to addmire

- 2010-2015
- 7 Counties
- 35 objects
- 3 800 ha
- Targeting 11 Natura 2000 habitats
- Targeting 6 species in the Species and habitat directive
- Targeting 14 species in the Birds directive
- 6.8 million € = 8 mUSD
Mires in Sweden

As much as 15% or 536 of Sweden's threaded species are depending on mires and wetlands.

The historical use has had a severe impact on Sweden's mires and wetlands, 25% of the original peatlands and wetlands in Sweden have disappeared (Löfroth 2001) through agriculture and forestry.

Threats: Peat mining, horticulture, productive agricultural land and productive forestry.
Before restoring

Monitoring
- Bird
- Veg
- Grw
- Watersamples:
  P/N

Landowners
Water rights
Hydroplanes

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HOW to restore mires

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Rich fen with trees
Rich fen with trees

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Raised bog
Raised bog

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Re-wetting a lake

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Old peat mining site
Clearing

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Questions?

Thank you for listening!

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