Sky Room 10: 11:45 - 12:00

1.3.10 Bog restoration on the edge: biodiversity and other ecosystem services in Dutch raised bog remnants

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Peatland Restoration
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The Dutch raised bog remnants 'Peelvenen' are remnants of a previously much more extensive raised bog landscape. The mire complex formed the natural border between two provinces. Due to climate the bog is situated on the southern edge of the distribution area of the Atlantic raised bog type. In this region the critical load of atmospheric nitrogen was and will be exceded several times. Furthermore, drainage and peat extraction severely degraded the bog landscape. Monitoring and recent studies showed that the restoration measures performed in the last decades in and around these severely degraded bog remnants considerably improved the hydrological situation and resulted in an increase of Sphagnum growth. Also, estimation of the past, current and future greenhouse gas emission (using the GEST approach) show considerable improvements. Plant and (in)vertebrate species naturaly inhabiting the edges of the bog complexes either disappeared, or survived the severe degradation of the bog landcapes inside the degrading remnants of the former mire expanse. To avoid restoration of the remnants to cause a further decline of the remaining populations of the characteristic and rare species, their current distribution and ecology was investigated in the reserves. This resulted in practical recommendations for measures. These will both further improve the conditions for bog restoration ánd enable relict populations to persist in the reserves and migrate to newly developed laggs and buffer zones, including areas with paludiculture.