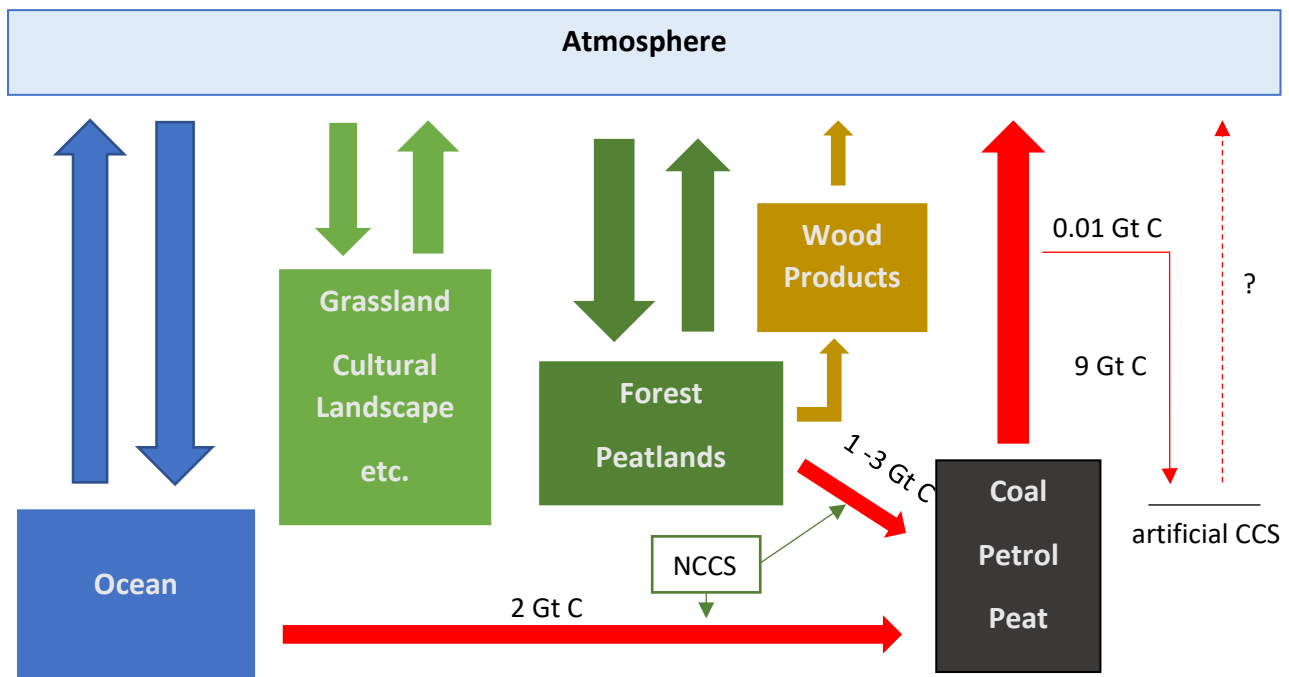


The invaluable Natural CCS



The carbon cycle shows the need for more peat sedimenting wetlands

Natural CCS (Carbon Capture and Storage) exists as long as live on earth and has stored huge amounts of carbon in coal or petrol. Since a few hundred years humankind has reversed that process and produced large amounts of CO₂ from the stored carbon and to make things worse the peat sedimenting wetlands have been destroyed. In Europe the situation is dramatic. During the last 300 years in Europe far more than 90% of peatlands have been destroyed. Many important functions like the following are lost:

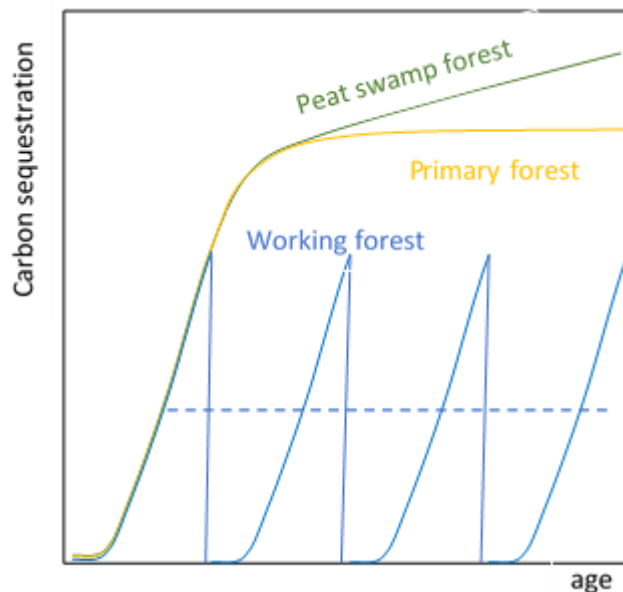
- Long term carbon sink. Plants incorporate carbon and will not be decomposed but transferred into peat.
- Biodiversity. Wetlands are an important refuge for endangered species.
- Water storage. The surrounding landscape profit from the water store with a robust hydrological cycle.
- Flood prevention. Wetlands buffer heavy rains to slow drains.
- Fire prevention. Flooded or wet habitats don't burn and even act as fire walls.
- Groundwater filtering. Mires incorporate nutrients and pollutants into the peat hence cleaning the groundwater.



1 Mires are important biotopes for many species

Artificial CCS (Carbon Capture and Storage) is a good way forward to reduce greenhouse gas emissions. But it is absolute foolish to destroy the important Natural CCS like mires or peat swamp forests that are in place and after that make big efforts with artificial CCS.

Scientific studies on peatlands show different accumulation intensity in different regions. The most efficient peatlands with high accumulative intensity are located in the temperate zone (Canada, Northern Europe, Russia). These mires and peat swamp forest are the most important habitats for oxygen production and carbon storage. Therefore the highest protection level is a must for these biotopes.



2 The process of carbon absorption is different for different types of forest

The value of peatlands is the permanent carbon sequestration in geological time scale. Most Primary forests have a good storage capacity but the carbon absorption goes into saturation due to rotting of the organic material with the release of carbon dioxide. Working forest have only a mean value of carbon storage capacity because most of the harvested timber is burned. Even wood products store carbon only for a certain time until the end of use.

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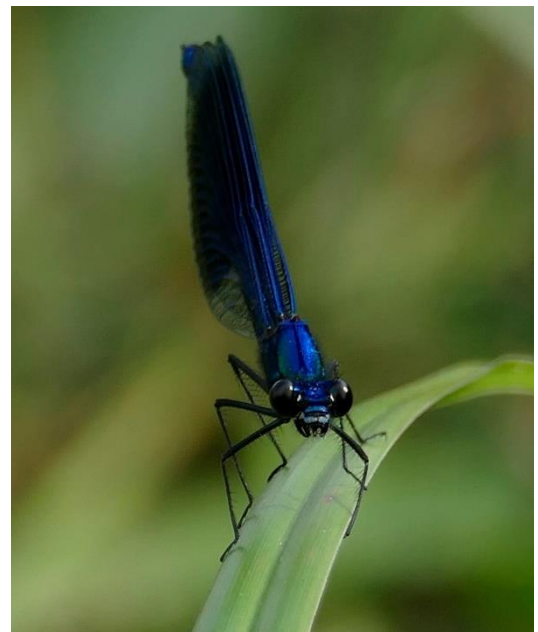
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3 The Banded Demoiselle needs water with high oxygen content



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text, graphic and pictures Norbert Ephan