

Sammanfattning av storprojekt beviljad 2021

Dnr	Projektledare	Projekttitel
21-GP-0005	Martin Gullström	Climate change mitigation capacity of the Baltic coastal seascape: identification of hotspot environments for coastal blue carbon sequestration and guidance for sustainable management of the Baltic coastal landscapes under global change (CLIM-SCAPE)

Global climate change mitigation is the most important alternative to face the threats to our planet but poses ample challenges for society, governments and policy makers around the world. Within the climate debate, there is a key focus on the climate mitigation potential of natural carbon sinks. Nevertheless, there are major knowledge gaps concerning the functioning and vulnerability of these sinks and their critical link to climate compensation capacity and conservation policies, especially regarding the complex coastal marine environments of the Baltic Sea. The project will assess and quantify total net blue carbon sequestration capacity, greenhouse gas exchange and landscape connectivity (export and fate of carbon) coupled to habitat degradation and land-use change to identify hotspots of climate mitigation capacity in coastal seascapes of the Baltic region. This novel landscape-scale approach to understand and synthesize climate change mitigation capacity of blue carbon habitats will be contextualized in a comprehensive mapping of policy strategies, conservation practices, monitoring and area-based user conflicts across regions. Seascape-wide conceptual climate-carbon models on coastal blue carbon will be developed to identify areas for spatial conservation prioritization and areas of concern, which will benefit managers developing land use planning and policy-making that just and sustainably safeguard climate regulation services of seascapes in the Baltic Sea.