Federal Ministry for the Environment, Nature Conservation, Nuclear Safety and Consumer Protection

Federal Ministry of Education and Research

NWO

TRICMA² - Triple Crisis Meets Trilateral Cooperation

Effects of Biodiversity Loss, Climate Change, and Pollution on Salt Marshes & Pathways to their Sustainable Management

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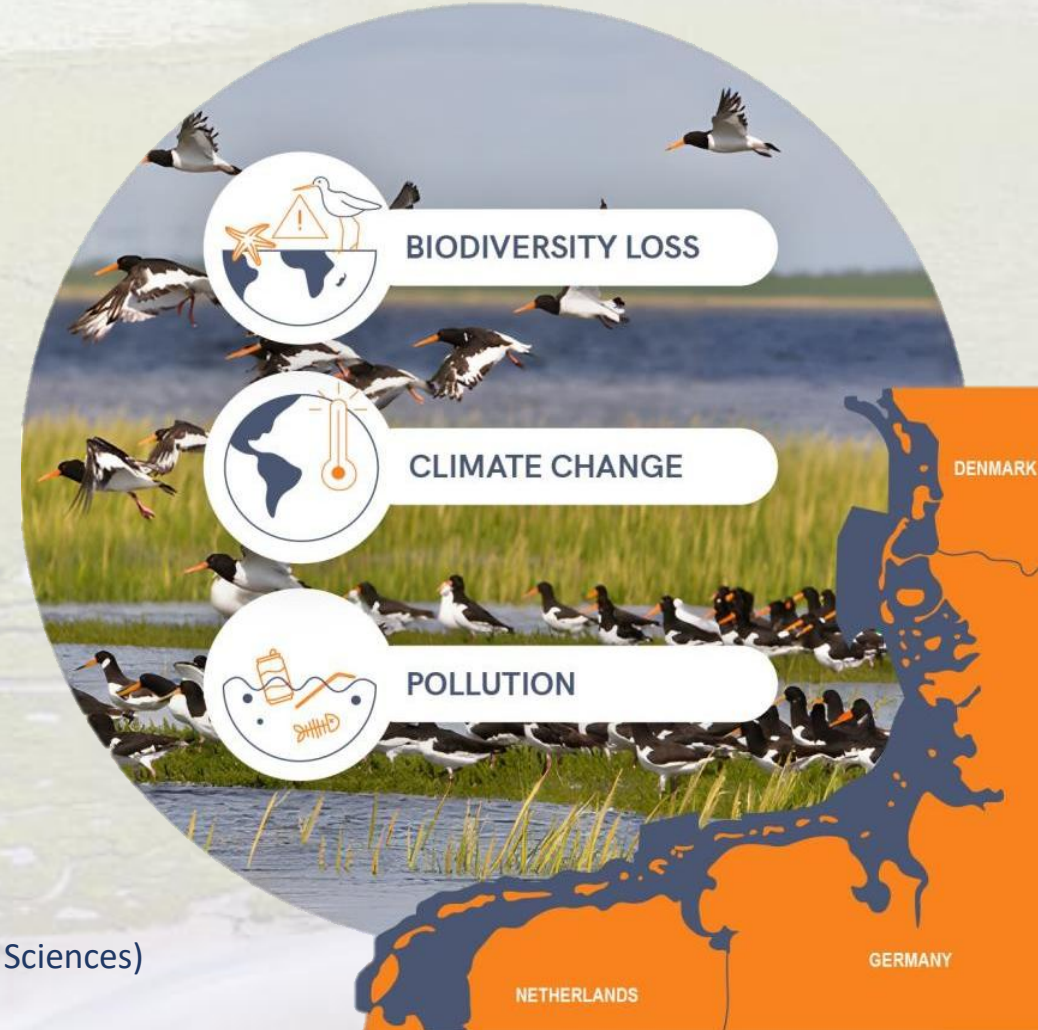
Wadden Sea Research Projects: Information Meeting for stakeholders (20 Feb 2025)



Prof. Dr. Kai Jensen (Universität Hamburg)
Prof. Dr. Peter Müller (University of Münster)
Dr. Philipp Schwemmer (Kiel University)
Dr. Andreas Waser (Alfred Wegener Institute)
Prof. Dr. Ir. Chris Smit (University of Groningen)
Prof. Dr. Loes Witteveen (Van Hall Larenstein University of Applied Sciences)

There is a need
to **adapt and improve**
the management and governance of Wadden Sea salt marshes
in the face of pressures

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Overarching goal:

Develop guiding principles

for future salt marsh management

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Develop guiding principles

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Salt marsh **management**

On a trilateral scale, management of salt marshes is highly diverse

Management context / governance arena

Management activities

Great variety of actors

Research at the science-society interface

Involve stakeholders in complete research cycle

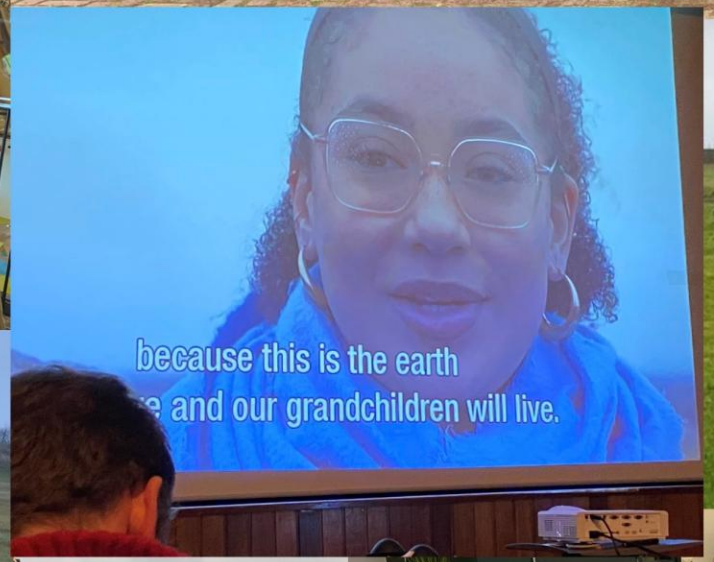
Create synergies between diverse knowledges

WP1

SOCIAL-ECOLOGICAL LEARNING & SCIENCE-SOCIETY INTERACTIONS

Youth as stakeholders

Design social-ecological learning trajectories to support sustainable management of salt marshes


because this is the earth
and our grandchildren will live.


163 Groningen
Vertrek in 5 min.

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WP1

SOCIAL-ECOLOGICAL
LEARNING & SCIENCE-
SOCIETY INTERACTIONS

plants, microbes, macrozoobenthos, soil fauna

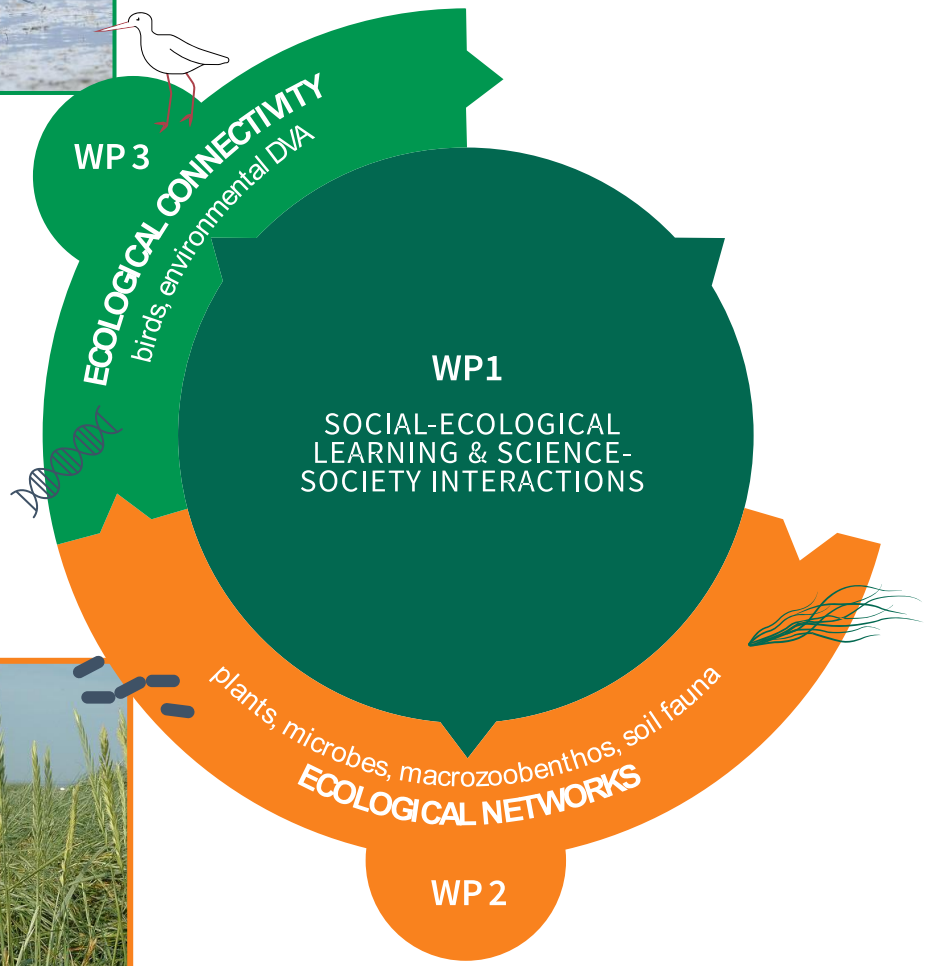
ECOLOGICAL NETWORKS

WP 2

Map ecological networks
Study effects pressures

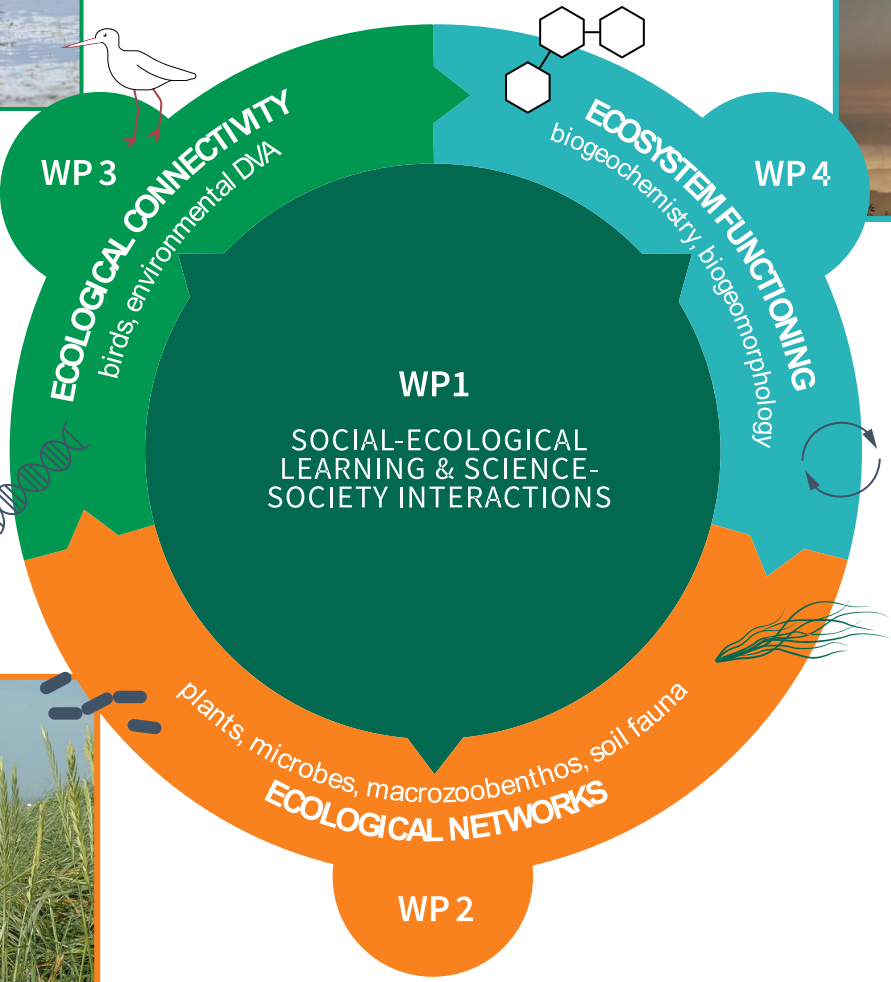
Connectivity to hinterlands, mudflats
Habitat and diet in relation with pressures
Pollutant burdens

Map ecological networks
Study effects pressures

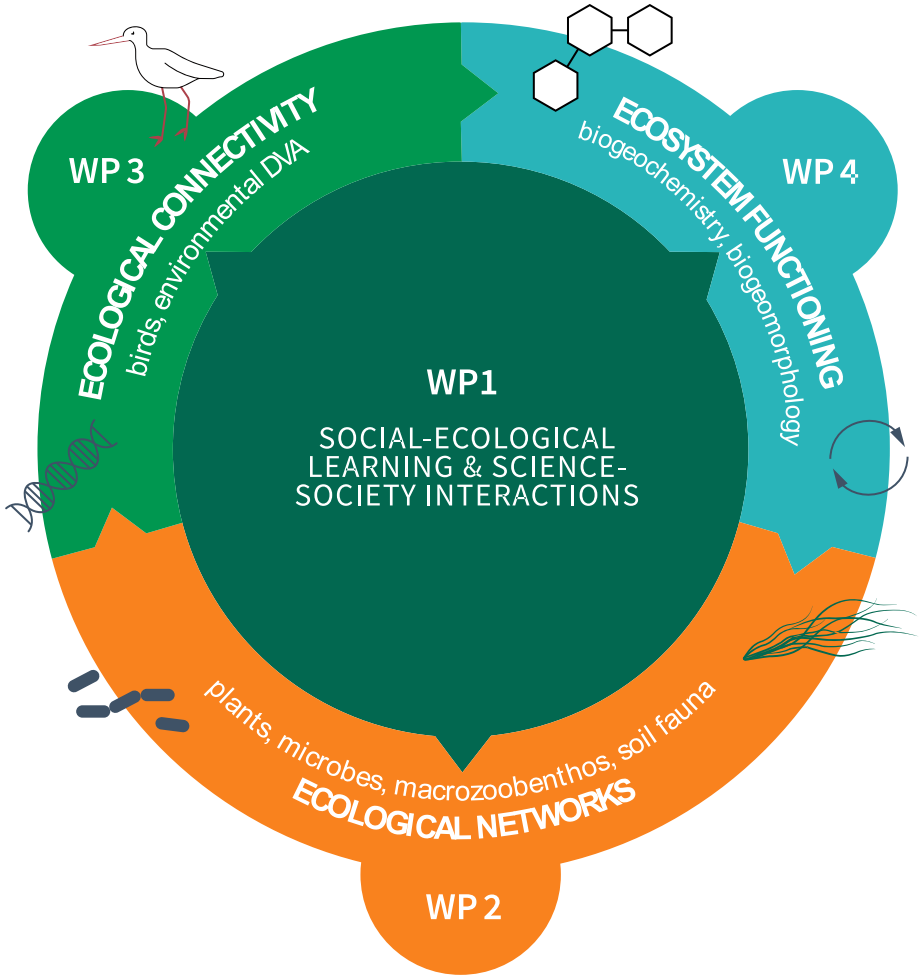


Connectivity to hinterlands, mudflats
Habitat and diet in relation with pressures
Pollutant burdens

Sediment accretion
Carbon storage
Greenhouse-gas cycling
Pollutant retention



Map ecological networks
Study effects pressures



Overarching goal:

Develop guiding principles for future salt marsh management

What is the meaning of future in TRICMA²

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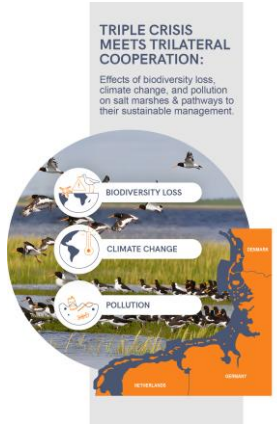
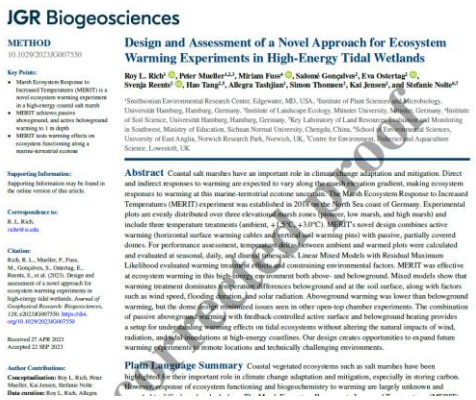
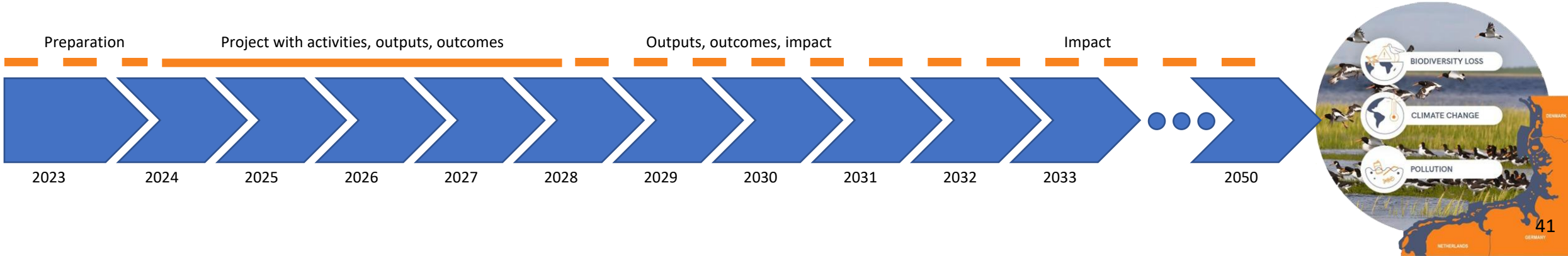
- Raising attention of ‘future generations’
- Analyzing effects of future climate change

- Addressing future trilateral challenges together
- Principles for future salt-marsh management







Relevance of TRICMA for stakeholders

1) Co-create ecological knowledge

2) Involvement in co-development of Guiding Principles for salt marsh management

3) Join our work with secondary schools / Youth Wadden Academy

Relevance of TRICMA for stakeholders

1) Co-create ecological knowledge:

- Design of field observations / experiments (e.g. response of specific plants/animals of salt marshes to specific conditions)

Examples of possible (small) projects during stakeholder visits:

- Farmer: can you investigate mowed salt marsh as alternative to geese grazing on farms?
- Natuurmonumenten: what is impact of heat waves on species diversity of salt marshes?

Relevance of TRICMA for stakeholders

2) Involvement in co-development of Guiding Principles for future salt marsh management (under stress of triple crisis)

- Inclusive → visit stakeholders “at home”, listen to different perspectives
- Holistic → widen view of all involved from local/regional to trilateral
- Based on newly-created ecological knowledge

3) Join our work with secondary schools / Youth Wadden Academy

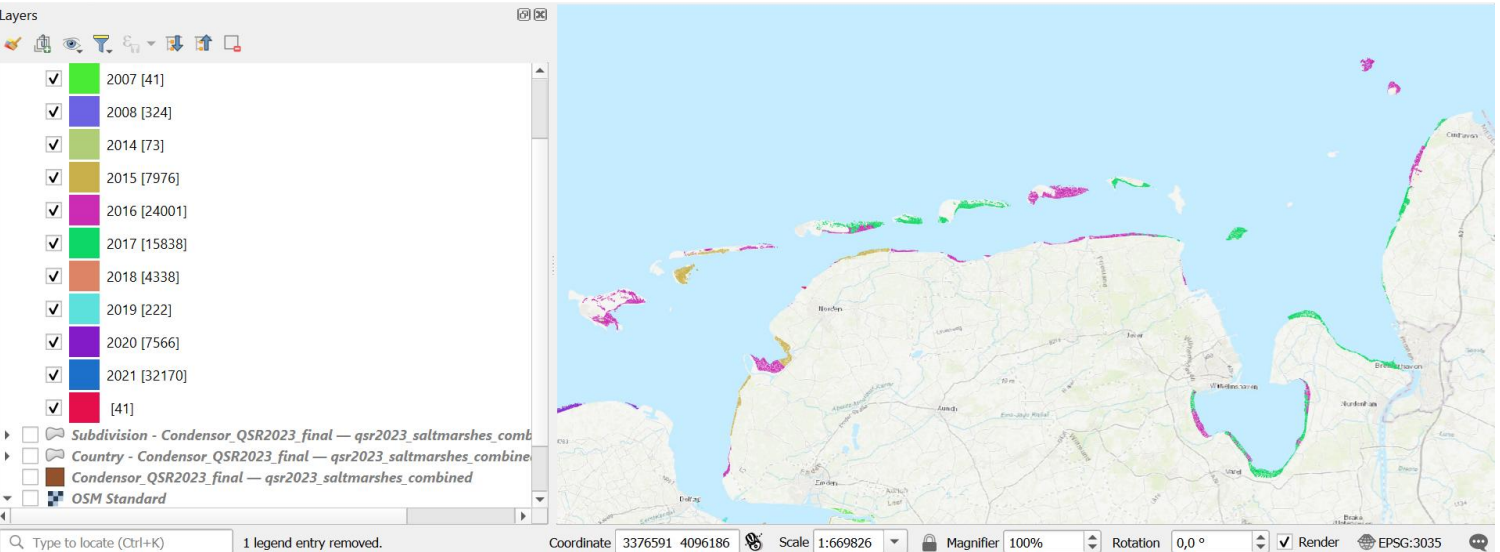
- Your perspectives heard by future generation
- Building network of young salt marsh ambassadors

Relevance of TRICMA for stakeholders

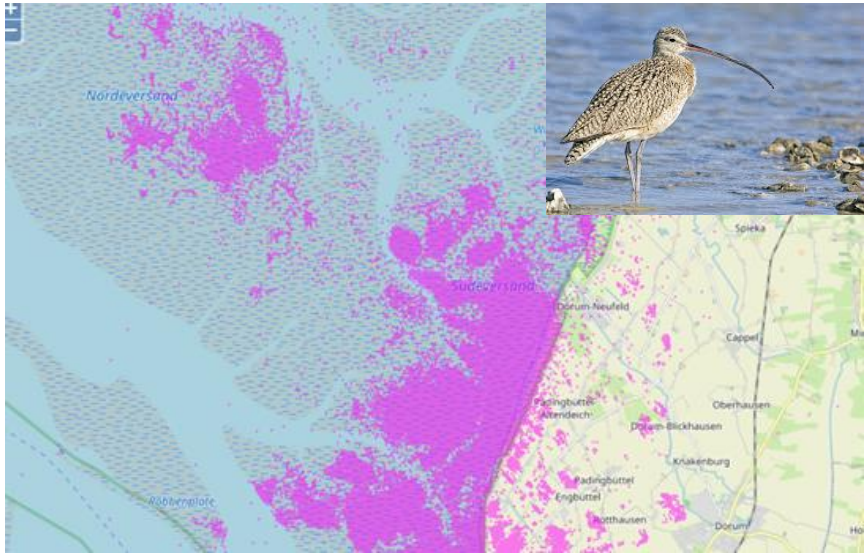
Access **harmonized** ecological data sets (once compiled):

- TMAP vegetation monitoring data for all NL/Lower Sax/Schleswig-Holstein/DK
- TMAP info on type of management (if possible?)
- Harmonized bird telemetry data (curlew, avocet, brent & barnacle geese)
- Field and experimental data on ecological networks

TMAP vegetation data; image by Filiz Kück



Curlew telemetry data: Phillip Schemmer



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Montag, 28. Januar 2025. Wattenmeer-Ausgabe. Preis: 2,09 euro / nr. 232.

Much unknown about Wadden Sea salt marshes: carbon sinks?

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Industrial 'music' and climate woes deafen youth to water sector

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Control or not to control: Spartina taxa in salt marshes

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Knowledge is essential to co-create conservation management

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Threat to Outstanding Universal Value of the Wadden Sea Unesco World Heritage

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Montag, 28. Januar 2030. Wattenmeer-Ausgabe. Preis: 5,13 euro / nr. 292.

Dietrich and Lucka sign 'guiding principles' for management of salt marshes in the Wadden Sea

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Radical and global agenda for the 10th and final meeting of the Youth Advisory Board for Sustainable Salt Marsh Management

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Better understanding of future effects of climate change-induced coastal squeeze on birds

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Complex networks of the salt marshes are even complexer

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Salt marshes to keep pace with sea level rise

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