



Gregor Scheiffarth, Kai Eskildsen
Subtidal habitats in the Wadden Sea



Nationalpark
Wattenmeer







Common Scooter

bivalves

Ensis leei



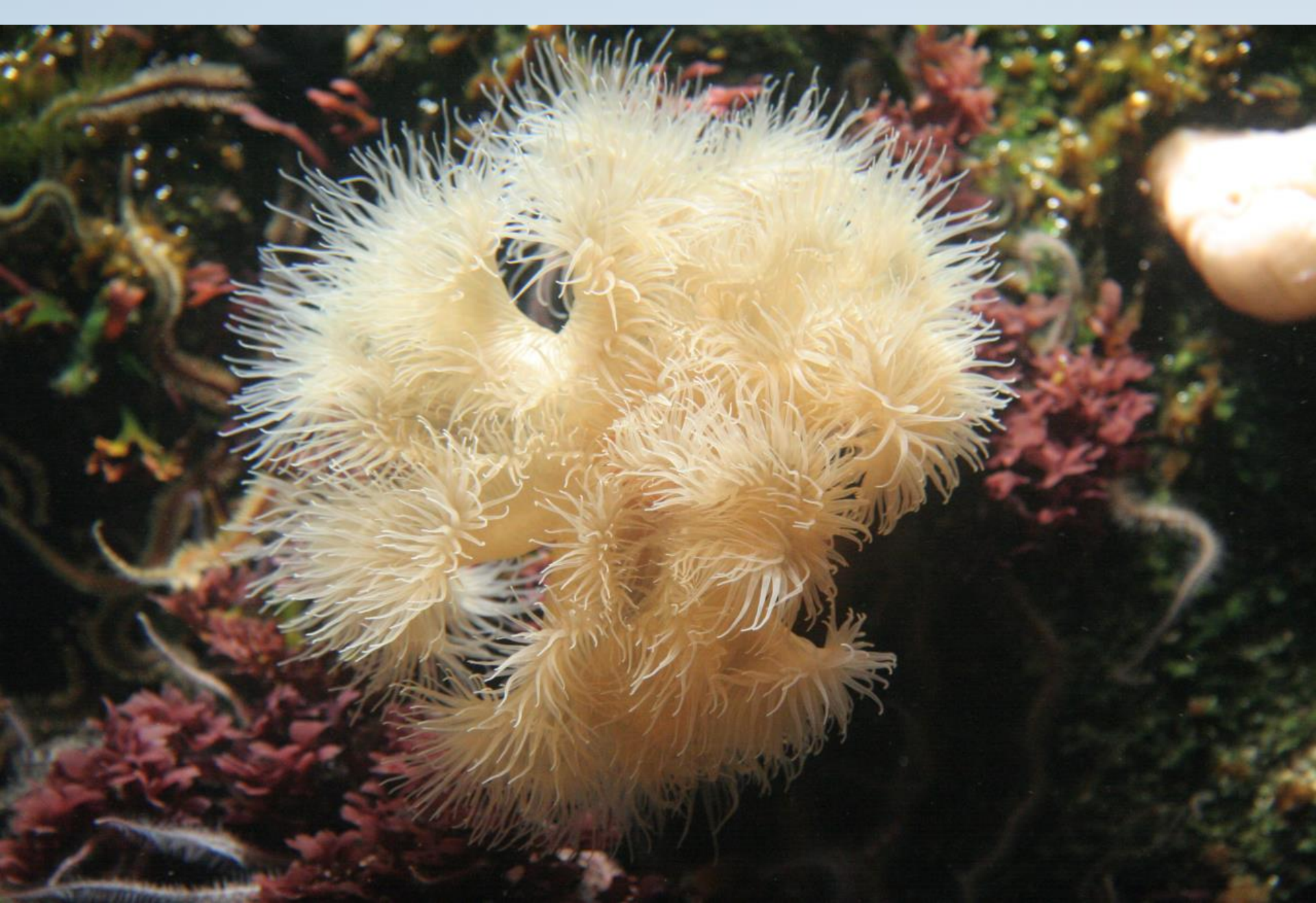
Spisula subtruncata



Fotos: Hans Hillewaert









van der Reijden, et al. (2019). *Journal of Sea Research*, 144, 85–94.
<https://doi.org/10.1016/j.seares.2018.11.008>

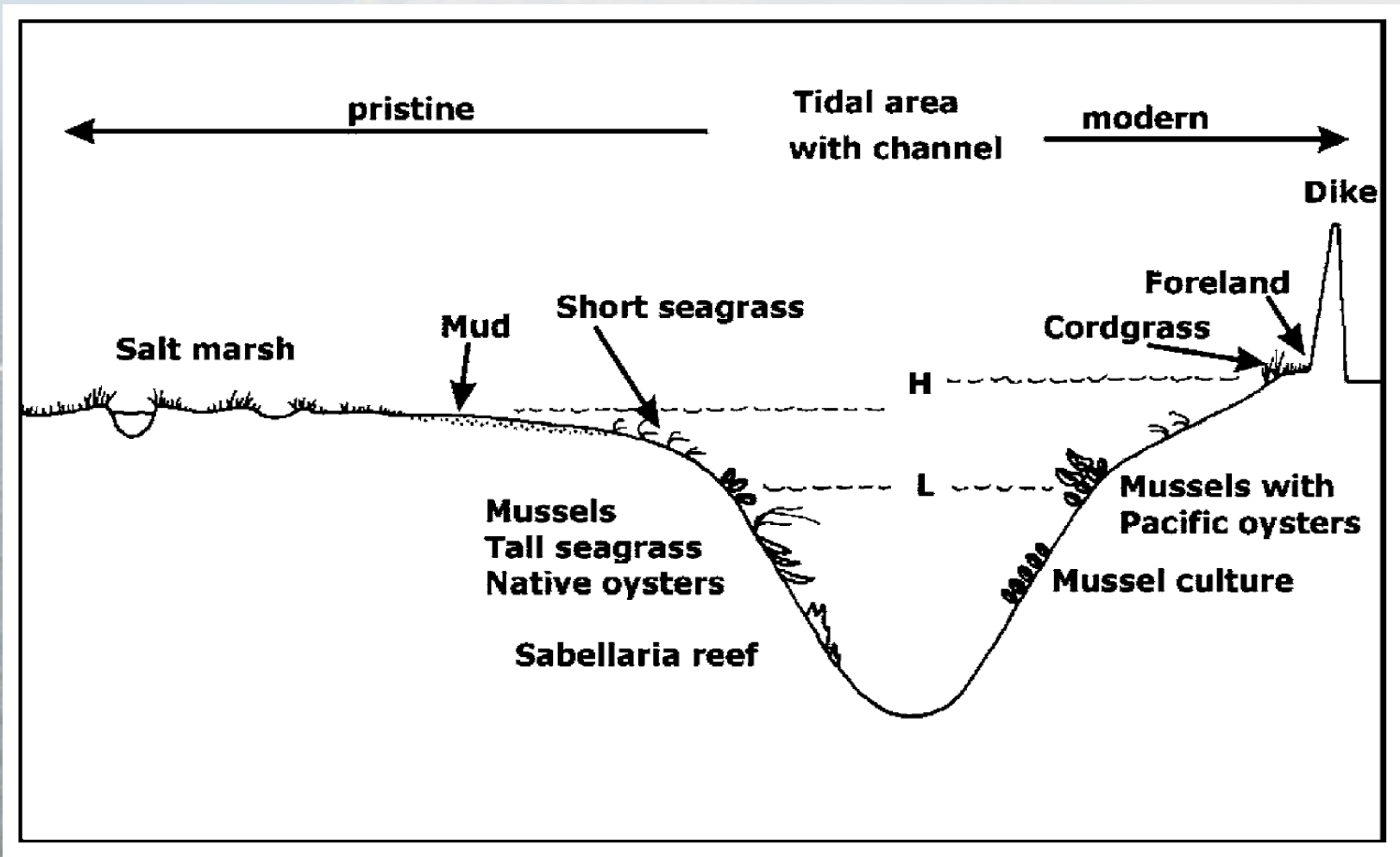




connectivity



changes over time



Reise, K. (2005). Helgoland Marine Research, 59(1), 9–21.



Wadden Sea Plan 2010



The Targets

- an increased area of geomorphologically and biologically undisturbed tidal flats and subtidal areas.
- a natural size, distribution and development of natural mussel beds, Sabellaria reefs and Zostera fields.



11th Trilateral Governmental Conference
on the Protection of the Wadden Sea,
Westerland/Sylt 18 March 2010

Nationalpark
Wattenmeer



Wadden Sea Quality Status Report

[Introduction](#)

[Geomorphology
and climate](#)

**[Habitats and
communities](#)**

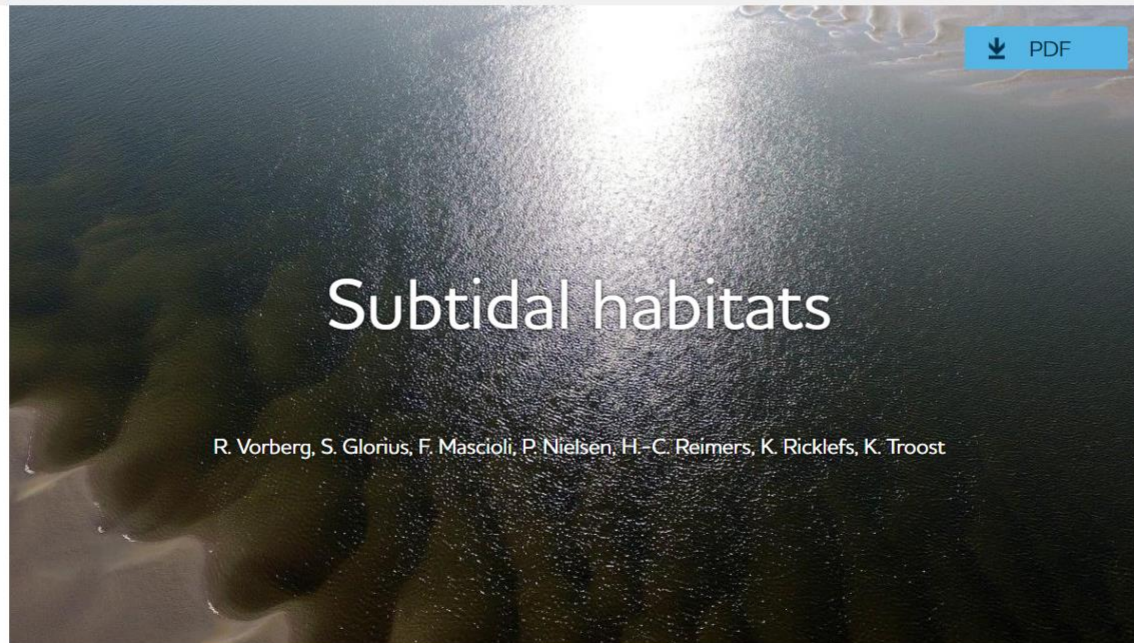
[Species](#)

[Human activities](#)

[Pollution](#)



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Subtidal habitats

R. Vorberg, S. Glorius, F. Mascioli, P. Nielsen, H.-C. Reimers, K. Ricklefs, K. Troost

Photo: Ralf Vorberg. Intertidal river.

1. Introduction

2. Status and Trends

3. Assessment

4. Recommendations

5. Summary



protected habitats

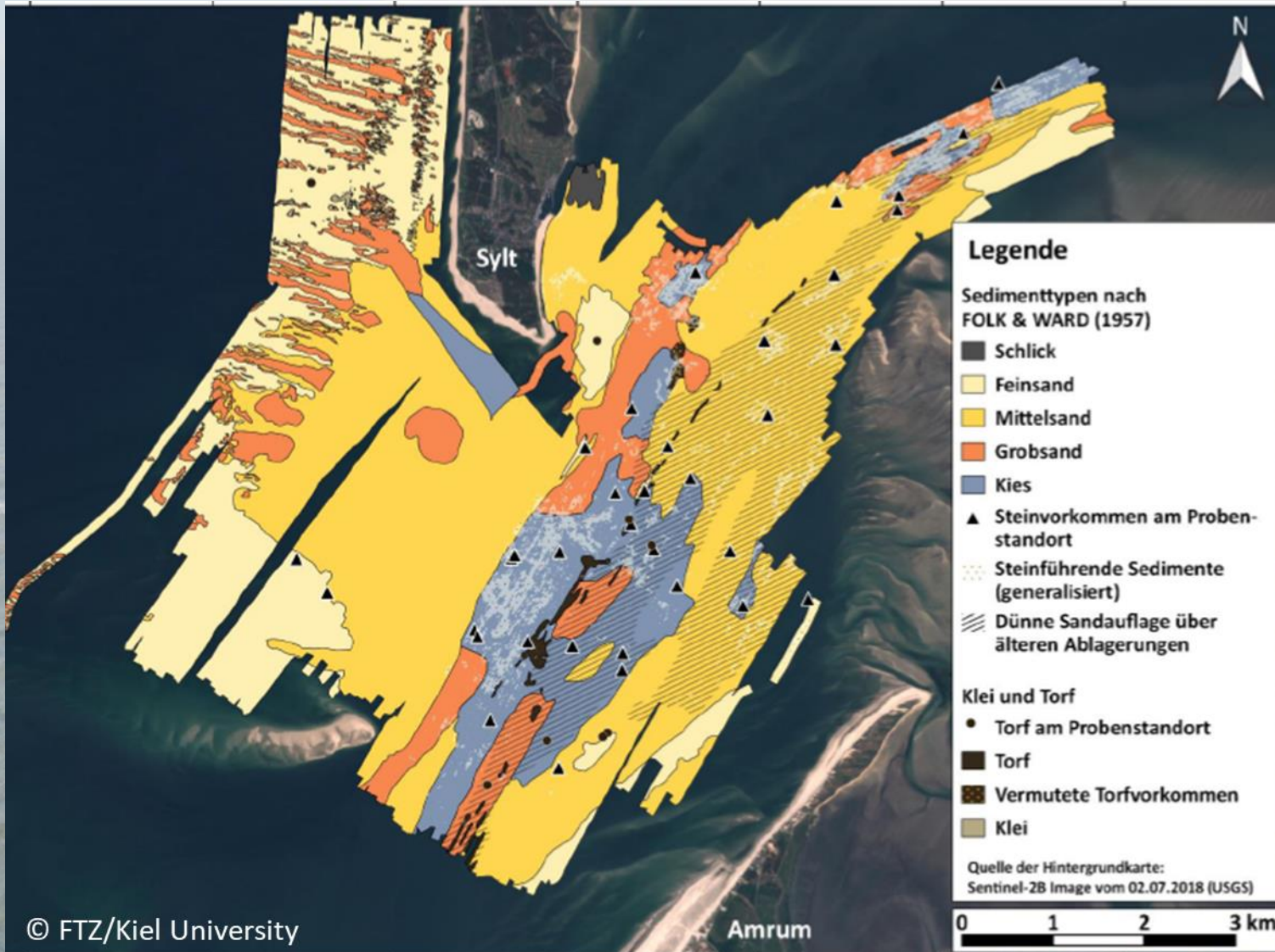
- Natura 2000
 - Sandbanks which are slightly covered by sea water all the time
 - Large shallow inlets and bays
 - Reefs (geogenic and biogenic)
- German federal conservation law
 - Species-rich gravel, coarse sand and shingle beds
- MSFD
 - 10 % of broad habitat types without physical disturbance



Example: Hörnum Deep



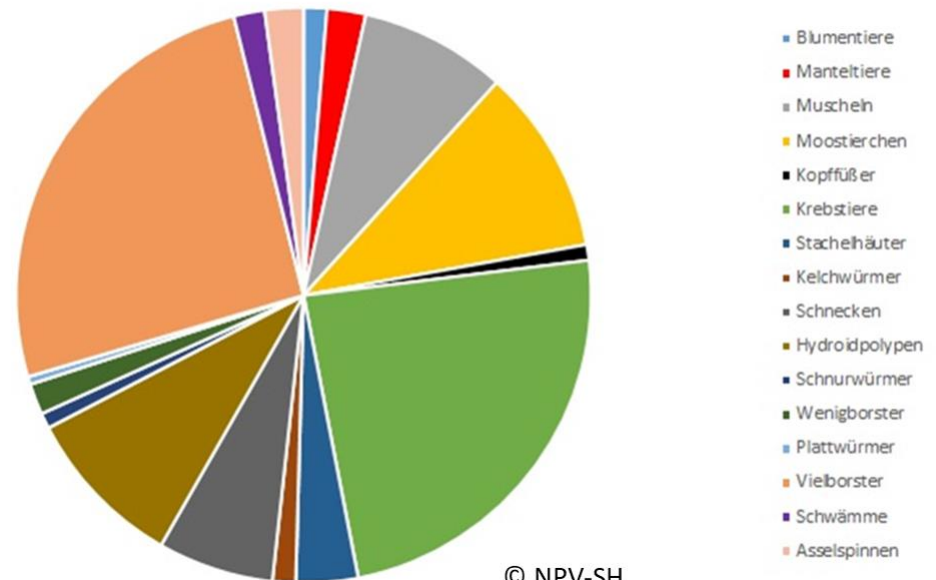
Example: Hörnum Deep



Example: Hörnum Deep

- currently one of the best investigated tidal basins
- 230 benthic species
- highest species numbers in polychaeta (59) crustacea (55) bryozoa (24) and hydrozoa (21)

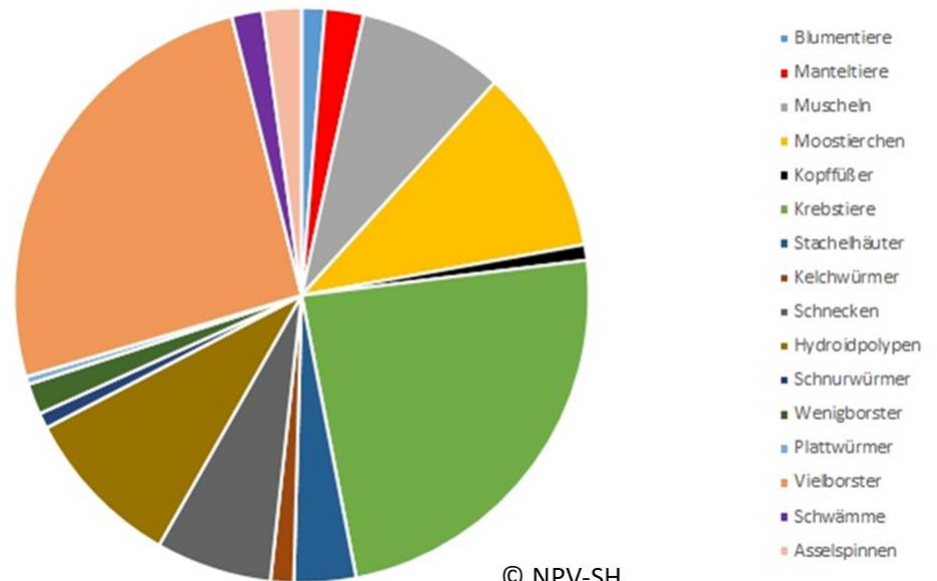
Verteilung der Artenzahlen auf unterschiedliche Großgruppen



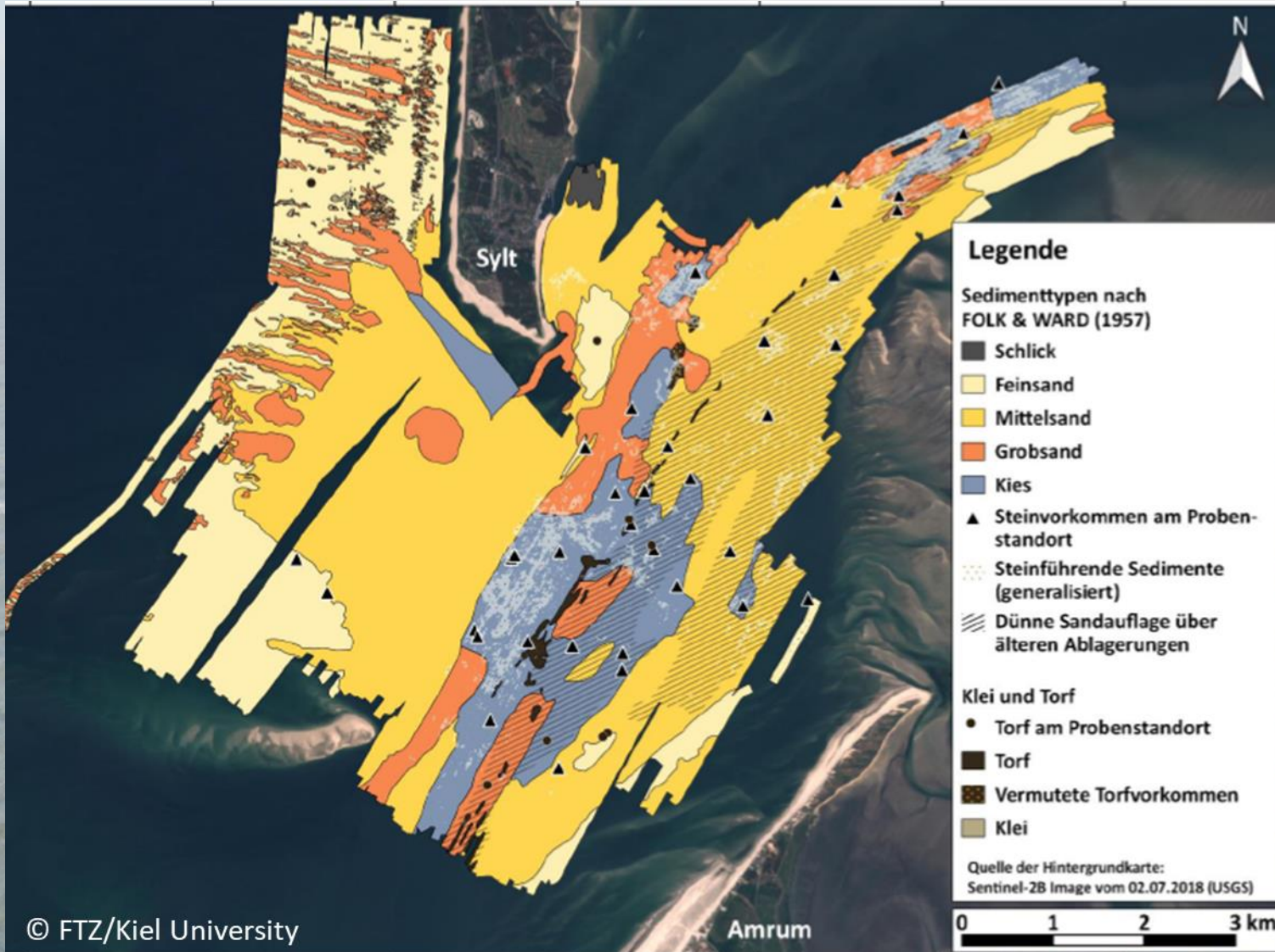
Example: Hörnum Deep

- 31 species on the German Red List
- 43 % of the 230 benthic species are bound to hard substrates
- biodiversity hotspot

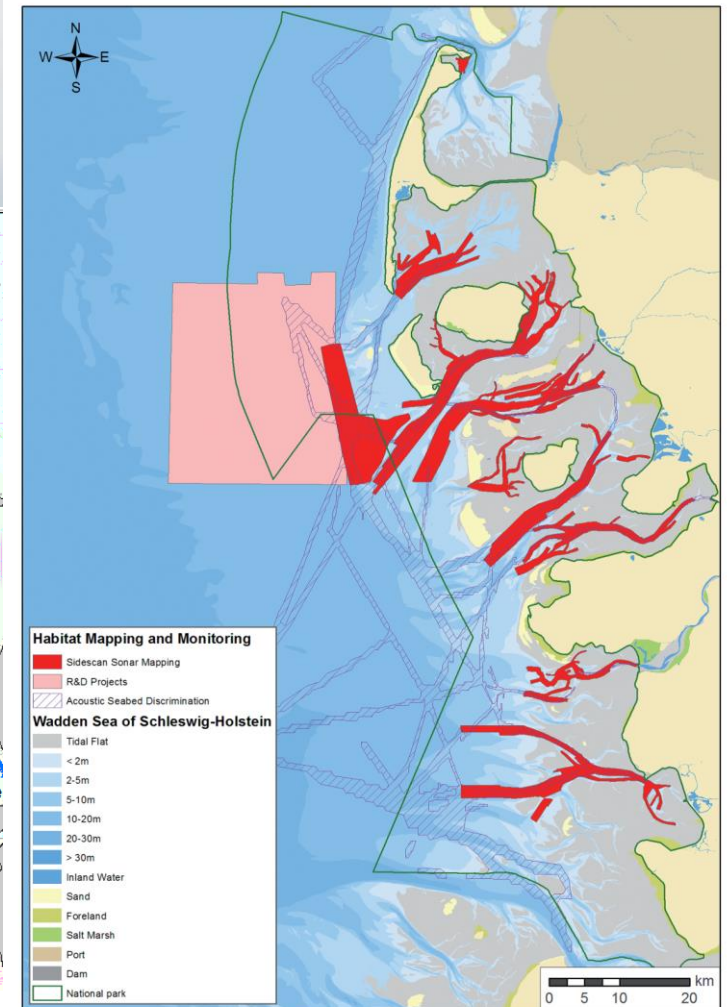
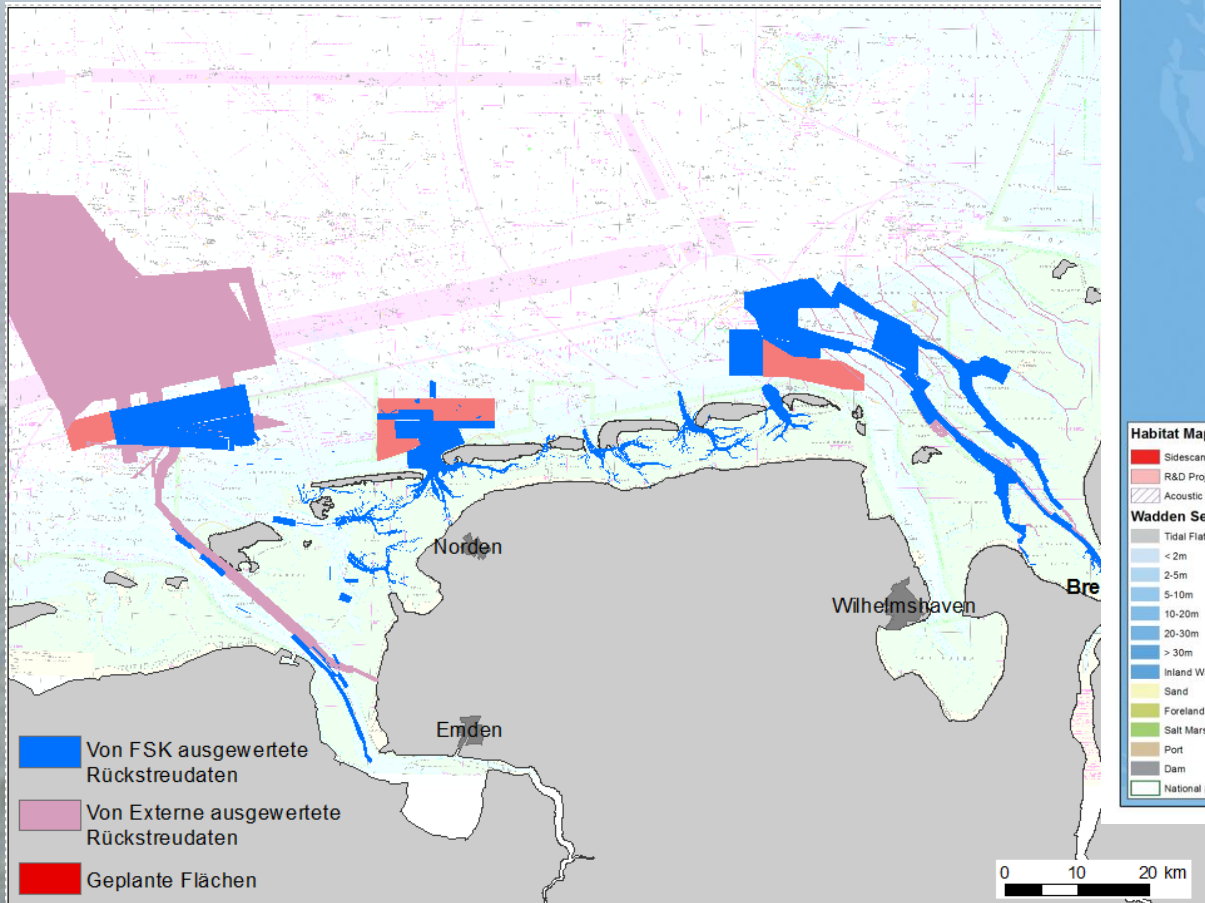
Verteilung der Artenzahlen auf unterschiedliche Großgruppen

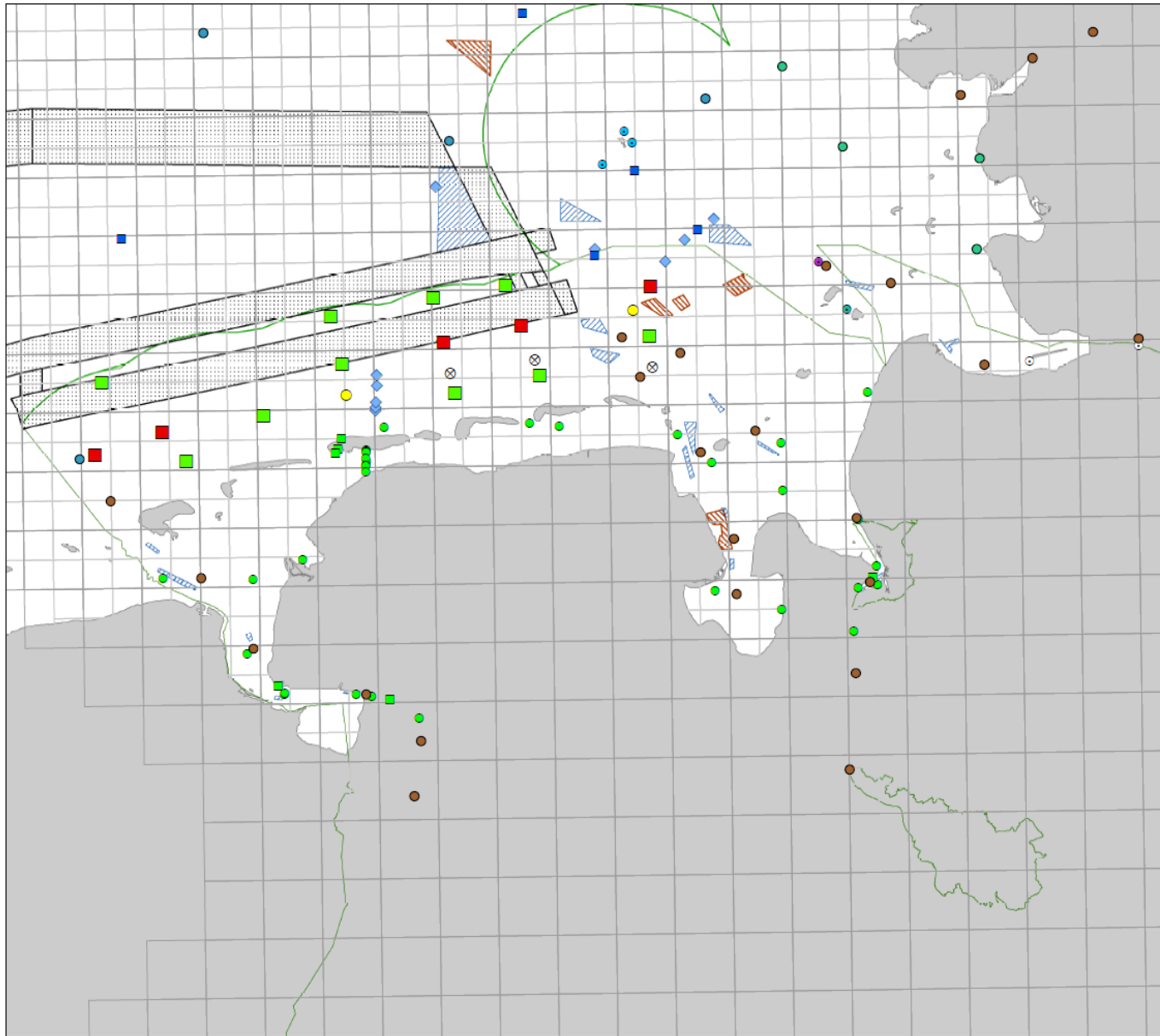


Example: Hörnum Deep



Mapping subtidal habitats





Datenbasis MSRL

Probenahme 2020

- Station mit Genetik
- Station ohne Genetik

Probenahme 2019

- mittlere Ausprägung
- ⊗ anderes Sediment

Monitoring Intitution

- AWI
- BFG
- IOW
- LLUR
- LUNG
- NLWKN_Hartsubstrat
- NLWKN_MZB_2013

KEMP MZB 20121010

Institution

-
- BSU
- BFG
- LLUR
- LTR-Stations_AWI-Bhv
- ◆ LTR-Stations_SAM

■ Raster 10km

■ Raster 5km

■ Verkehrstrennungsgebiete_ETRS

■ Reeden_ETRS

Extraction

Status

■ Bewilligung

■ Abbau

— Basislinie_D_12sm

■ BAS_LandNds5000N

■ EEA_coastline_D_poly

1:636.520



Aufgestellt:
Dr. Alexander Schroeder
GB III; AB 34

Oldenburg, 25.11.2020



Niedersachsen

Koordinatensystem: ETRS 1989 UTM Zone 32N Bstellen



Recent developments

- increased knowledge on subtidal habitats
- definition and description of habitat types
- trilateral TG-MA workshop on monitoring subtidal habitats (01. – 02. November, Büssum)
- restoration of biogenic reefs

