

# Wadden Sea

## Monitoring and Mapping of Vegetation

Fieldwork GIS Models and Analyses

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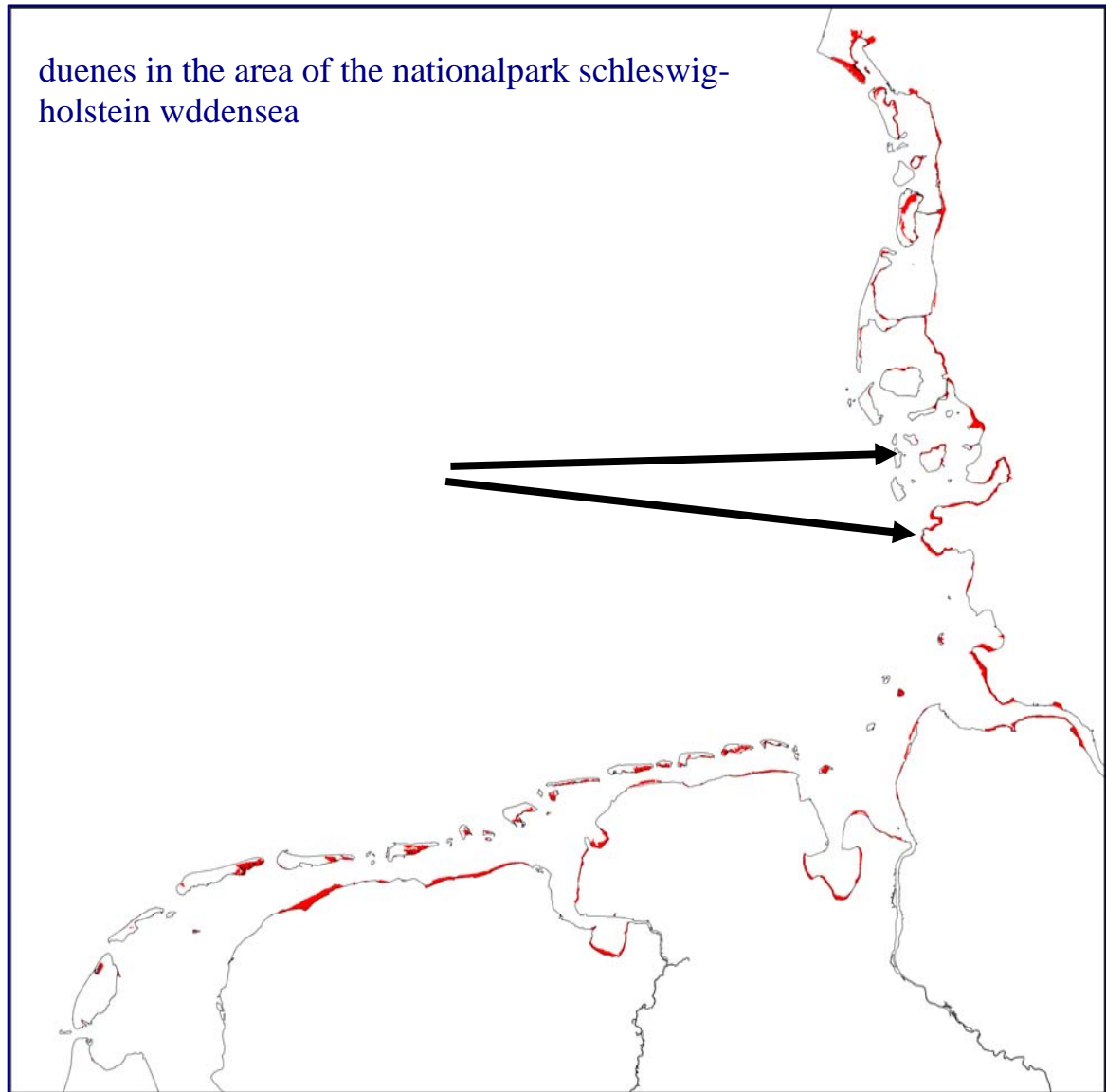


Nationalpark  
Schleswig-Holsteinisches  
Wattenmeer





# An Overview





# Conflicts

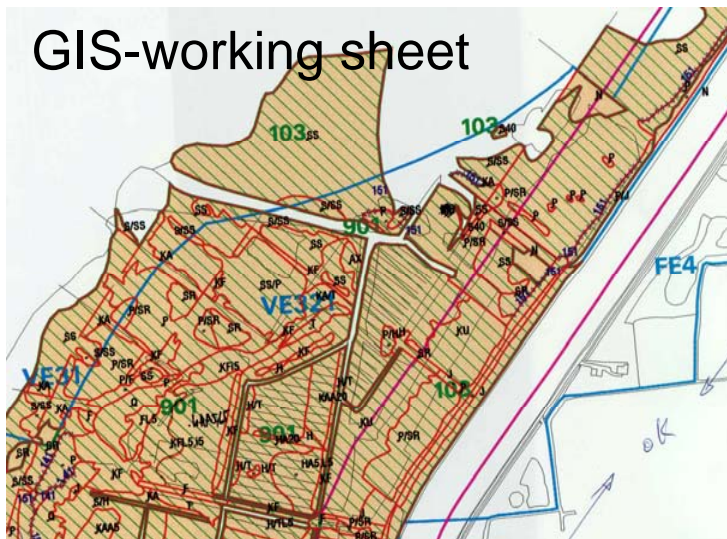
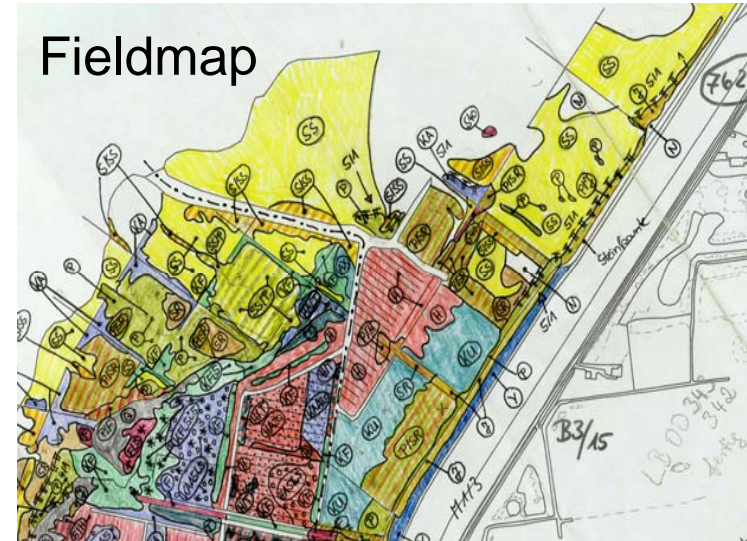
some examples

- Coastal defence
  - buildings to collect sediments
  - artificial planting to stabilise dunes
- Tourism
  - 4wd car driving
  - walks and resting in dune areas
- Nutrients
  - impact by rain
- Erosion
  - by sea





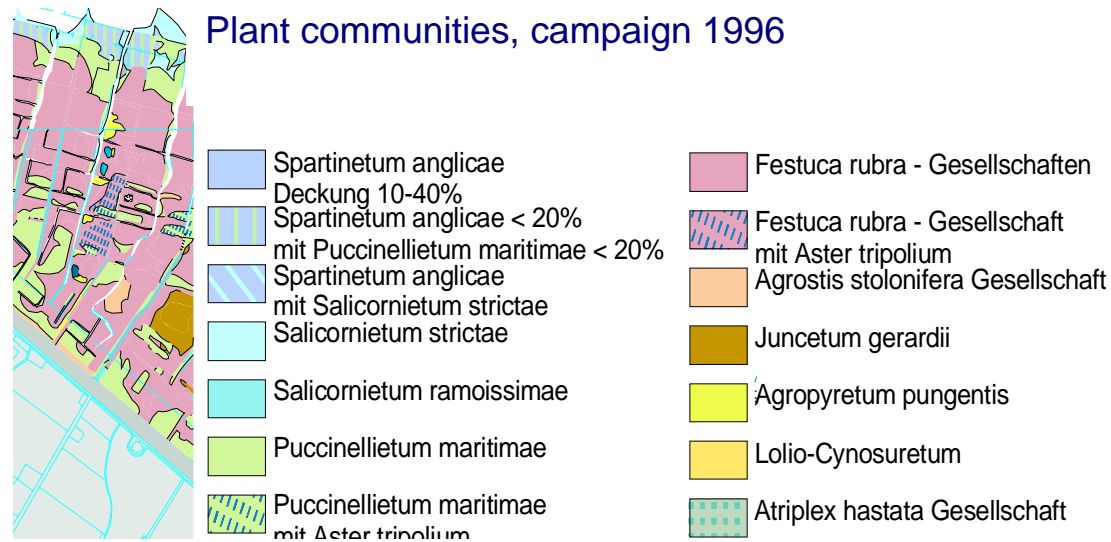
# Remote Sensing, Fieldwork, Digitising





# Specified vegetation maps are created

There are about 40 communities of plants in the salt marsh area. Additional specifications are mapped and noted in the database. They could be found in small mosaics or areas with small differences.

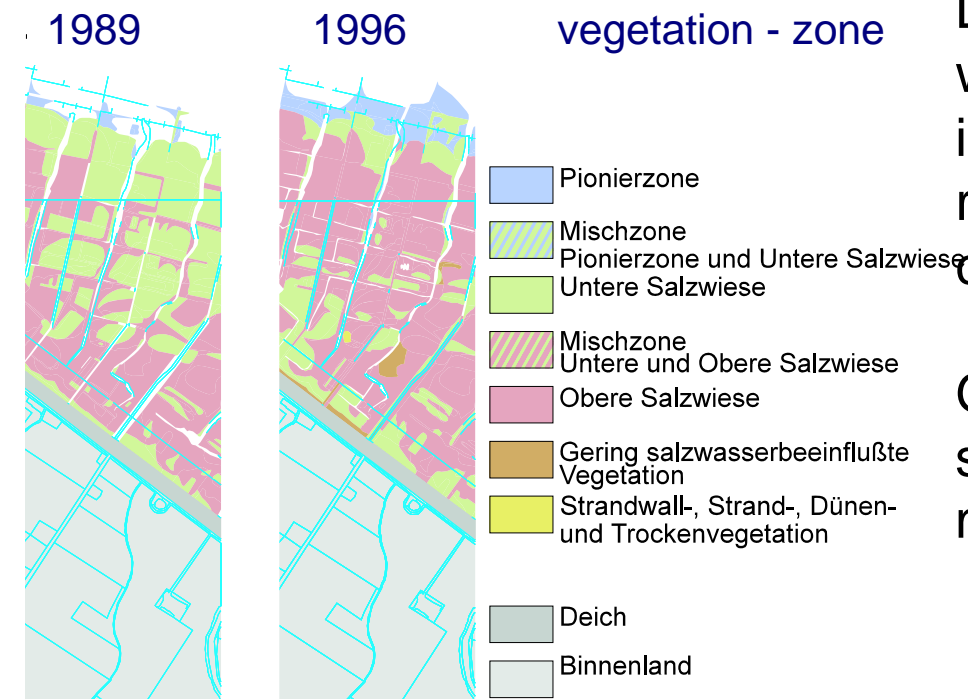




# Zones of Vegetation

Reduction to ecologic relevant groups is used to make changes visible.

There is the concept of succession. On the sea side pioneer plant species grow.



Landwards the influence of water and salt should increase. Species with lower resistance could settle and create plant communities.

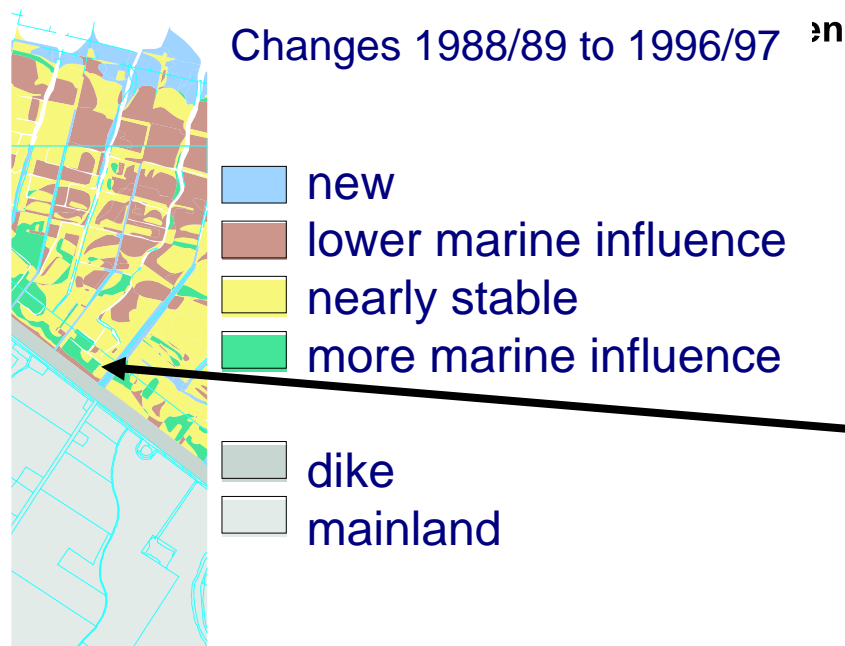
Groups of plant communities should mark differences of marine influence.





# Changes of Vegetation

Changes of marine influence could be shown by differences of vegetation zones.



Theories based mostly on simplifications. They create a model of reality.

More marine influence directly before the dike is the result in this example. Erosion ? A risk for the land and people ?

We mapped plants with more pioneer character after 8 years on areas with plants of low level influence by seawater.

Here was an abrupt sedimentation by wave transport. The plants are covered by sand. Now pioneers start again.

Thank you very much