A future task in good hands

Federal Agency for Nature Conservation

Distribution and conservation status of habitat type ‘Estuaries’

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II 2.2 Habitats Directive / Natura 2000





project information





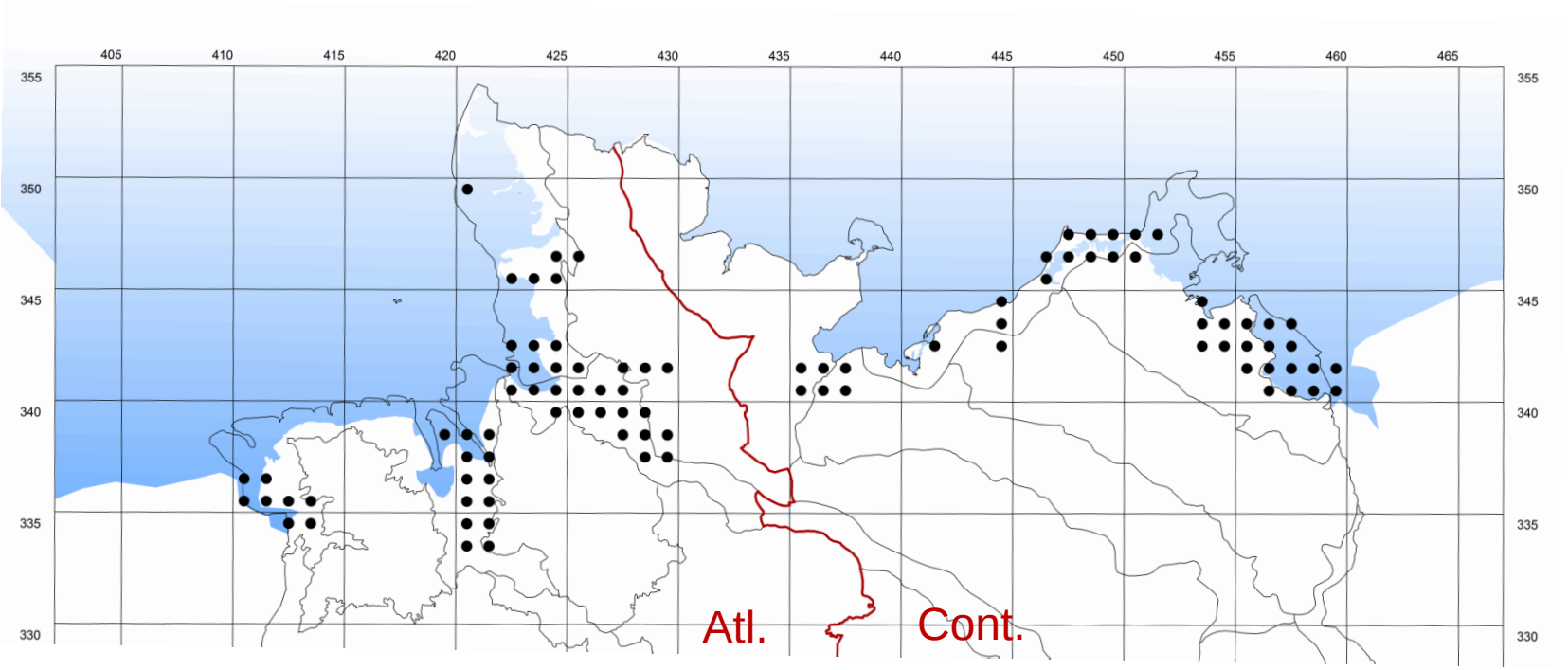

Project **„Natura 2000-Estuaries: exchange of experiences on the management of European estuaries“** (03/2016–10/2017, FKZ 3516532002)

- this workshop „Embracing Estuaries“ is the result of the project,
- it was initiated as follow-up event of the first Atlantic Seminar by the State of Hamburg and the German Environment Ministry (BMUB),
- it is supported by the Federal Agency for Nature Conservation (BfN) and funded by the Federal Ministry for Environment, Nature Conservation, Building and Nuclear Safety (BMUB),
- the project is implemented by the Elbe Habitat Foundation in cooperation with *SUPERURBAN.*

Distribution of estuaries in Germany





North Sea / Wadden Sea:

- High salinity gradient
- High tidal differences
- Mostly fine sediments

Baltic Sea:

- Low to medium salinity gradient
- Almost no tidal differences
- Fine sediments and pebbles (moraine coasts)

Distribution of estuaries in Germany






Percentage of distribution area per Federal State in the atlantic region

Federal State	Percentage of distribution area [%]	Area [ha]
Lower Saxony	56	66,9000
Schleswig-Holstein	41	37,000
Bremen	2	1,682
Hamburg	1	612,0

Habitat type 1130 – a biotope complex






Estuaries are <u>habitat complexes</u> and comprise several habitat types:

- mud flats and sand flats not covered by seawater at low tide (1140)
- Reefs (1170)
- Salicornia and other annuals colonizing mud and sands (1310)
- Spartina swards (1320)
- salt meadows (1330)
- Eutrophic tall herbs (6430)
- Lowland hay meadows (6510)
- alluvial forests (91E0, 91F0)

Selected species of estuaries






<u>Especially relevant species</u> (from a nature conservation perspective)

<u>Fishes</u>

- Migratory fishes (passage)
- Twaite shad *Alosa fallax* (esp. reproduction habitats)

<u>Birds</u>

- Wading, water and shore birds (migratory birds, resting areas)
- geese (on salt meadows)

<u>Plants</u> (characteristic / specialised)

- Elbe water dropwort *Oenanthe conioides*
- Elbe Hair Grass *Deschampsia wibeliana*
- bulbous foxtail *Alopecurus bulbosus*

Neozoa (esp. introduction through ballast water)

Conservation status of Estuaries






Conservation status in Germany for habitat type 1130,

based on the National Report 2013 (EU in brackets)

Biogeographical region	Range	Area	Structures & functions	Future prospects	Overall assessment	Trend
Atlantic	FV (U1)	FV (XX)	U2 (U2)	U2 (U2)	U2 (U2)	=
Continental (baltic)	FV (FV)	U1 (FV)	U2 (U2)	U1 (U1)	U2 (U2)	↓

= stable
↓ deteriorating

Threats & pressures






***High* threats and pressures** (habitat type 1130):

- human induced changes in hydraulic conditions
  (e.g. bank reinforcement, dykes, barrages, deepening of navigation channels)
- shipping lanes / ports / marine constructions
- estuarine and coastal dredging
- removal of sediments (e.g. mud)
- pollution of surface waters (limnic, terrestrial, marine, brackish)
- agricultural intensification
- changes in abiotic conditions (e.g. oxygen depletion in summer)

Requirements to improve the conservation status






<u>Measures to improve the criterion Structure & Functions</u>:

- Shore renaturation/ removal of bank reinforcements
- Restriction of continuous deepening of navigation channels
- Creation/ renaturation of shallow water areas
- Dyke relocation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Requirements to improve the conservation status






- Renaturation of tributaries (esp. estuary areas)
- Restoring dynamic (tidal range, passage for aquatic organisms)
- Expansion of flood plains (retention area)
- Extensification of agriculture on outlands (no cultivation or intensive grassland management)
- Reduction of water turbidity (oxygen depletion in summer)

The reference: favourable conservation status







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Thank you for your attention!


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