Session II | Habitat Restoration | time available: 30 minutes

Working group 2.a) Discussing oxygen deficiencies in estuaries

Moderation: Bernd-Ulrich Netz

1. Are there oxygen deficiencies in other Atlantic estuaries (apart from the Elbe) as well?
   What measures have proved to be successful?

   - **No deficiencies in other Atlantic estuaries apart Elbe/Ems**

   - **Elbe: Reducing the nutrient input in the catchment**

   - Elbe: secondary pollution

   - Ems: managing the barrier

Working group 2.b) The habitat 1130 - shipping lane contradiction – time for a new thinking?

Moderation: *Roger Morris*

1. Estuaries with sea ports and deep shipping lanes – (how) can a favorable conservation status be achieved? Are there other contradictions as well? Is there a need to make a series of exceptions to the requirements for full restoration of habitats to the highest level of functionality? If so, which exceptions?

   - **It will not be possible to achieve good conservation status**
     - **We can achieve a lot but...need commission to accept this**
     - **Overall aim for improvement but not perfection in special/unusual cases**
   - **Definition of estuaries needs to be revised**

Working group 2.c) How to implement major restoration projects

Moderation: *Prof. Mike Elliott*

1. Best practice examples: major habitat restoration measures. What were the key success factors for their implementation?
2.
    - **(SMART) objectives: realistic, achievable, linking conservation objectives for site & objectives for restoration projects**

    - **Are conservation objectives suited to a dynamic system? Learn to deal with uncertainty.**

    - **Success factor: functioning of site within the larger system even across national borders.**

    - **It takes a good understanding of systems for measures to be successful.**

Working group 2.d) Preservation vs. succession: Should we let nature take its course?

Moderation: *Kristijan Čivić*

1. From your experience: Are there habitats (belonging to the 1130-complex) which are endangered by natural development? Which arguments led to either conserve the habitats or to give them up in order to allow succession? Which major aspects have to be considered?

- o **directives admin framework – but what about natural dynamics? We should conserve habitats but also dynamics & take time-frame into account**

- o **Valuable habitats are also result of human actions (e.g. grassland)**

- o Setting cons. objectives is crucial – based on evidence

- o Consider bio-geographical level when planning estuaries connected in a way

- o bio-geographical processes important streamlining methodologies for monitoring & assessments of FCS

- o succession is already influenced by changes in system by human actions – so we should try to compensate for that

- o flats are changing; grasslands even more

Working group 2.e) Preservation vs. succession: Should we let nature take its course?

Moderation: *Stefan Lehrke | Christina Müller*

1. From your experience: Are there habitats (belonging to the 1130-complex) which are endangered by natural development?

   - Yes. But: conserve indefinitely (for all time)?

   - In absence of human pressure: no | if humans change natural dynamics: yes

   - Yes, but let the things go. Creates stability later on.

   - Yes, especially if enhanced by anthropogenic activity.

2. Which arguments led to either conserve the habitats or to give them up in order to allow succession?

   - Argument to allow succession → Give Priority to course of natural processes (instead of preserving specific system status)

   - Pro succession: only a few natural habitats left in Central Europe

   - Taking of our hands, and make room for natural processes, is very difficult in such strong man-influenced-systems. We have to conserve habitats.

   - Pro succession: low/no costs & efforts

   - Pro conserve habitats: protection of endangered / preserved species

   - Pro succession: new wilderness (development) areas

   - Legal ones, e.g. compensation according to EiA

   - Legal duty to conserve under directive. Should be able to undesignated?

   - Question of scale: importance to see the network and not only the site, because dynamic could exist in different sites. Importance of replication.

   - Measures might be required, because natural dynamics have changed.

   - Conservation of nature means manmade nature as the natural processes are not fully presented. Species depend on each other to maintain an ecosystem we have to conserve habitats.

3. Which major aspects have to be considered?

- **accept more natural dynamics**

- **Estuaries are strongly modified by humans today:**
  - **habitats like shallows need maintenance**
  - **Should we keep it up indefinitely?**

- Distinction between:
  - Anthropogenic created habitats (cultural landscape)
  - "Natural" habitats (Heathlands, mainland salt marshes)

- Habitat types in need of maintenance: 1330, 6510, 6430

- Natural dynamics changed by human influences and within this "new" natural dynamic habitats can be threatened. Conserving certain habitats, obliged by Natura 2000, goes against natural processes. Shallow water versus sedimentation. Natura 2000 makes it hard to deal with natural processes.

- Habitats are endangered due to manmade changes, not due to natural dynamics

- Legislation, cost, feasibility

Working group 2.f) Balancing site specific objectives and overall objectives of the estuarine system

Moderation: Manfred Meine

1. Best-practice-examples: Which conflicts had to be reconciled? Deciding about restoration measures: Which general assessment criteria should be considered?

   o **allow natural dynamics in newly created sites based on knowledge of model sites (e.g. Heuckenlock)**

   o **consider global objectives and adopt to local conditions**

   o **take into account rarity of species when creating the diversity of habitats**

Working group 2.f) Balancing site specific objectives and overall objectives of the estuarine system

Moderation: Prof. Patrick Meire

1. Best-practice-examples: Which conflicts had to be reconciled? Deciding about restoration measures: Which general assessment criteria should be considered?

   o **legislation vs. real life**

   o **only little space**

   o **feedback between ecology and the physics**

   o ecology starts with the physics

   o keep the morph.-dynamic system in mind

   o basic problem: morphodynamic is not properly understood

   o don't try to control a dynamic system

   o don't think statically

   o in a heavily modified estuary natural subsystems cannot be created

   o → define the objectives carefully