Restoration of Habitat as Essential Factor for Improved Fauna Populations

– Long Term Experience on North German Lowland Brooks –

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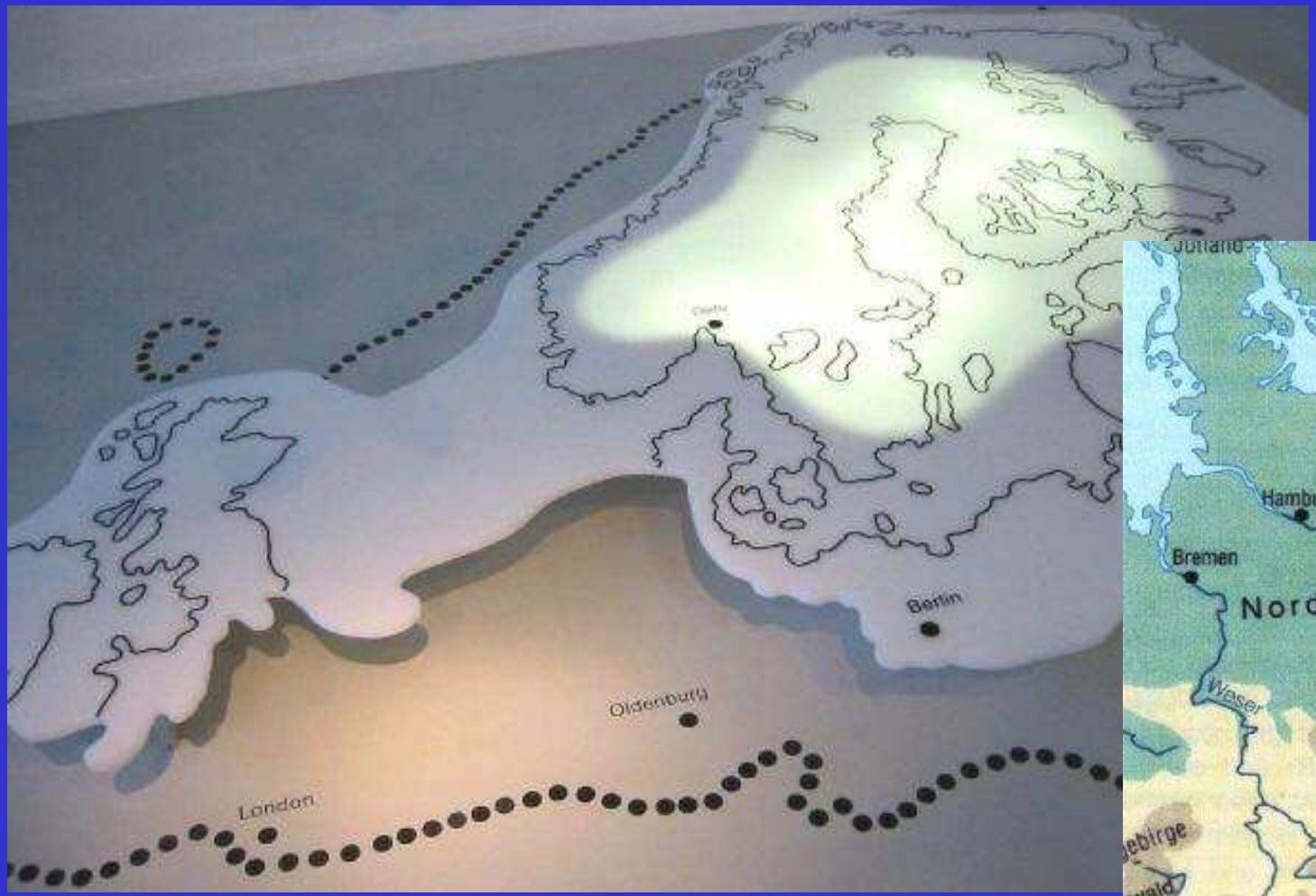
Restoration of Habitat

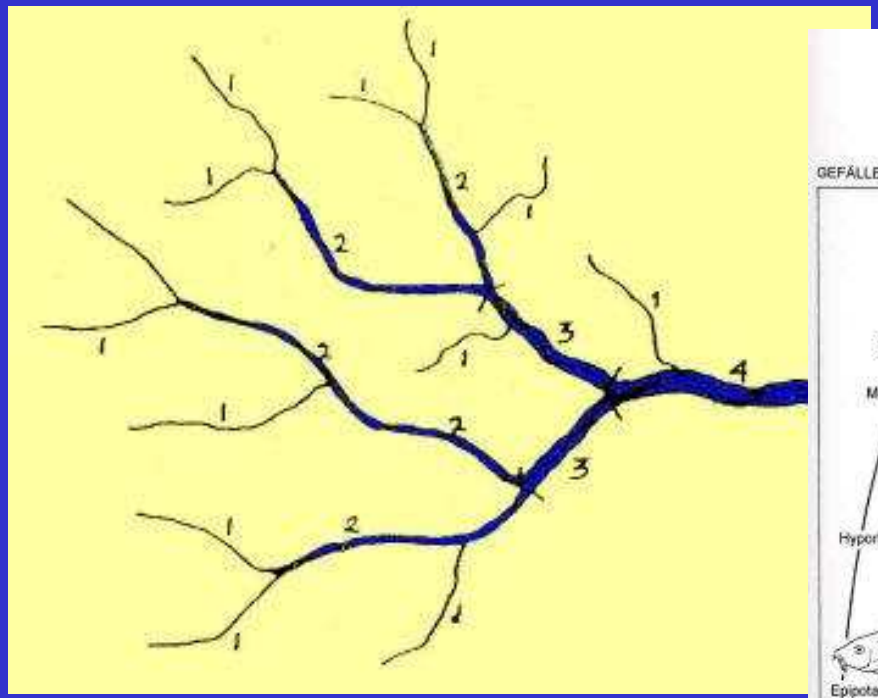
The Landscape

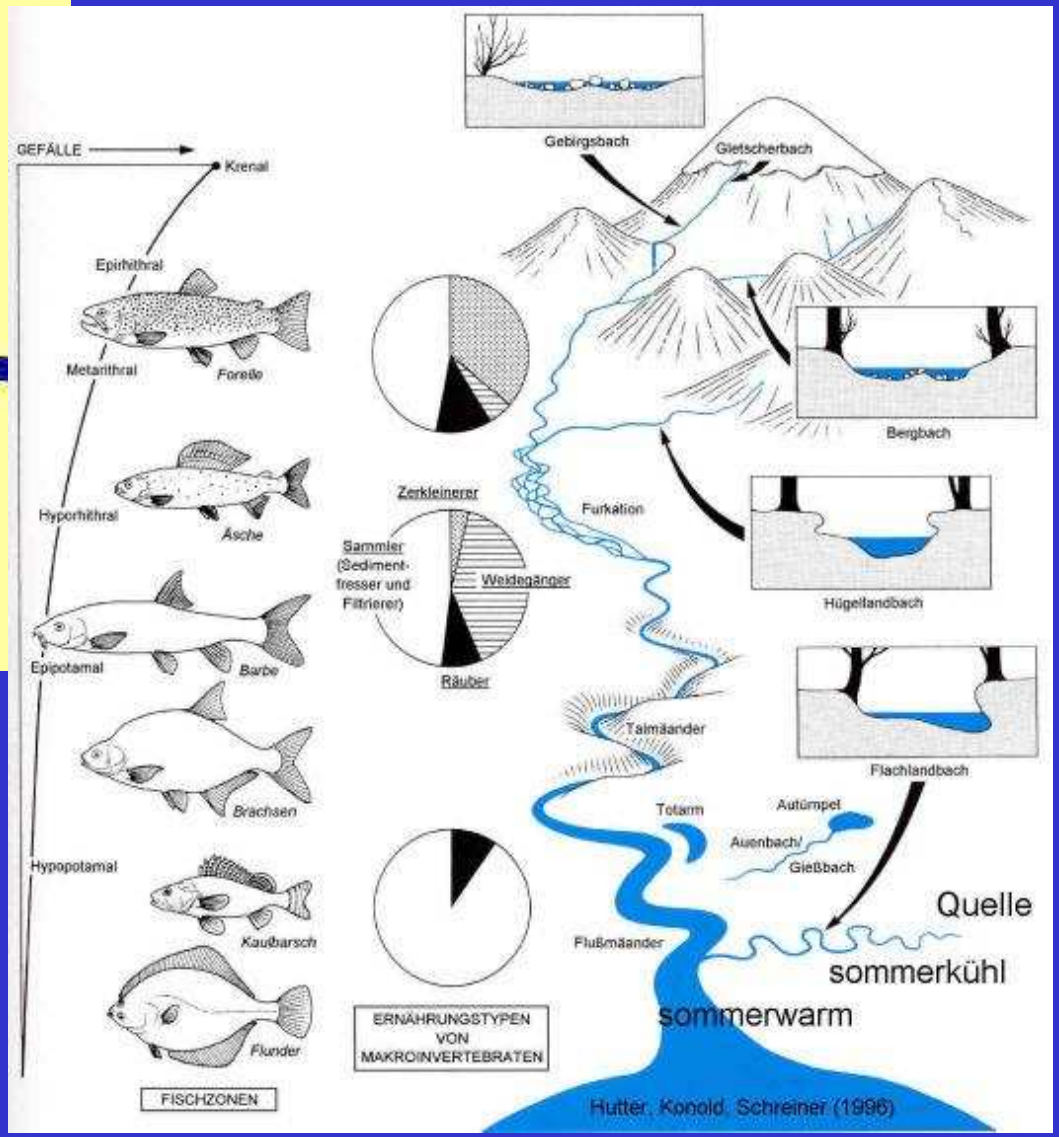
Structured by the glacial ages –

the North German Lowland is not (in every region) flat.



Watercourses – brooks and small rivers





- Brooks and small rivers make up to 80 % of the watercourses` total length
- Many of these are salmonid streams by their natural characteristics.

Watercourse Reality – Urban and Rural

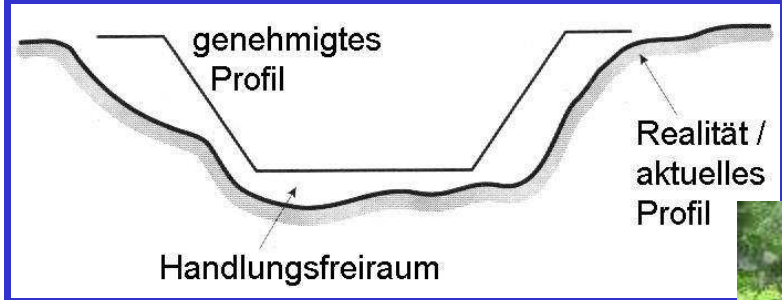
Wastewater treated –
No other problems?

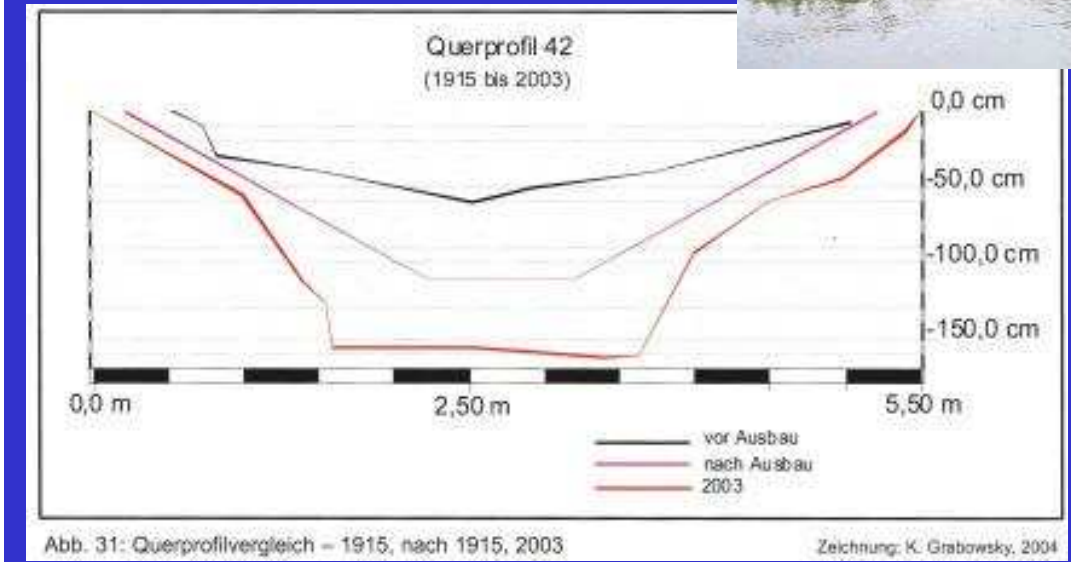
Lively habitats –
not to be found.

The good ecological status (goal of wfd)

Ab-original inhabitants
like invertebrates and fish know it best.
They are the indicators.

Reality of present day cross sections





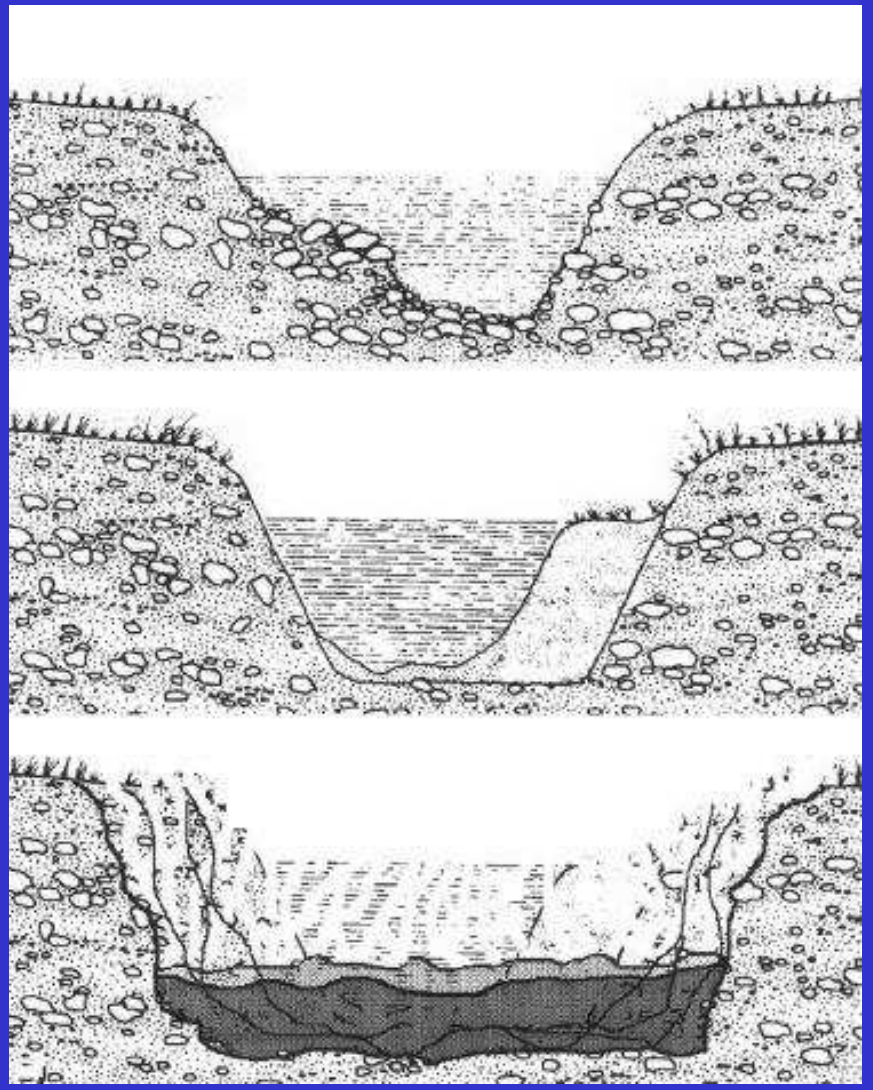
Overwide and over-deep cross sections prevail.

Hard maintenance left it`s footprints.

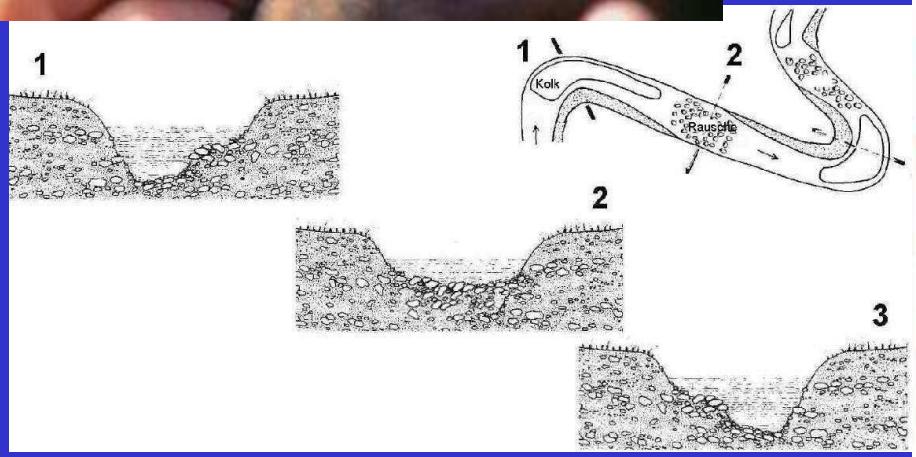
Heavy external, as well as internal erosion produces masses of material to be dredged elsewhere.

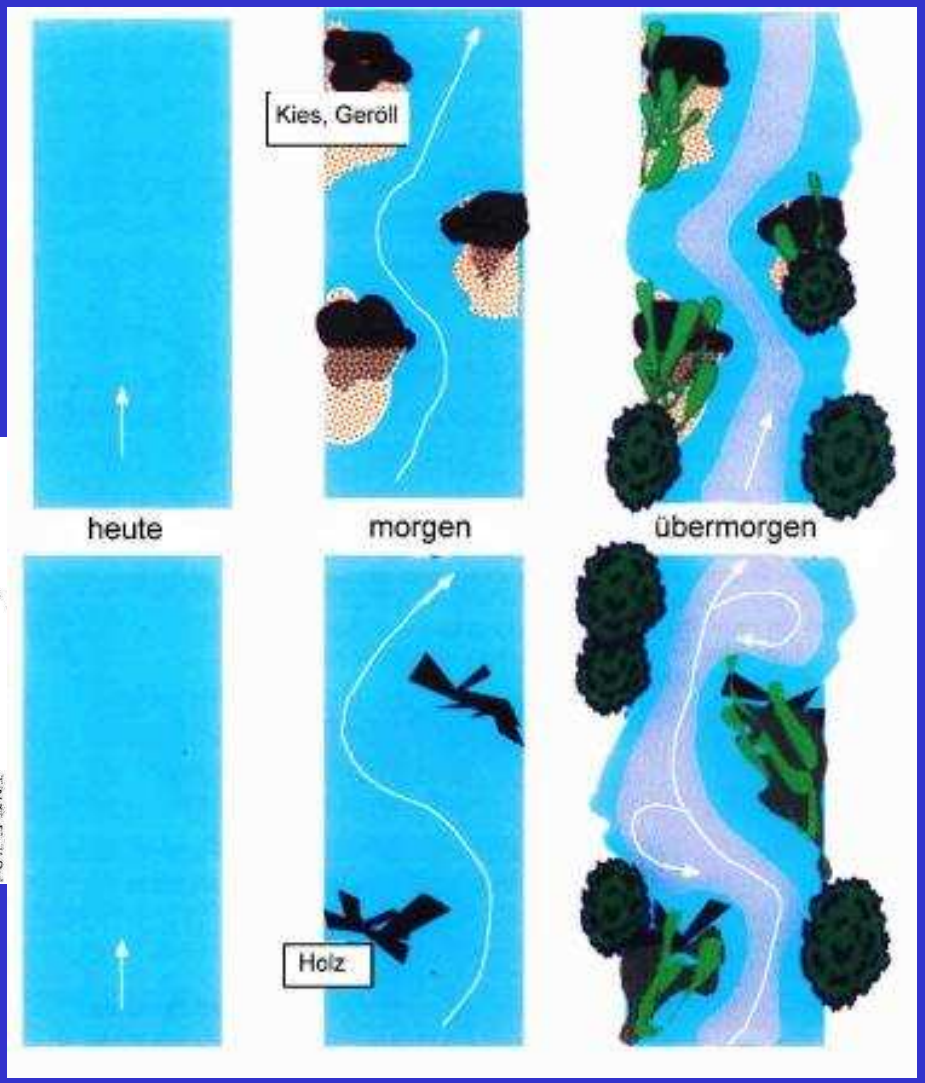
Just to remember . . .

- Brooks washed fine materials out of the moranes, thus leaving coarse material as bottom habitat. The view of the present day status leads into a wrong direction.



We have to restore it.





Do you see what you see?

- In focus: In-stream-Restoration

Structure – a key element

Habitat variety – the key element for thriving populations of characteristic organisms

Restoration of Habitat

Adopt a brook

. . . with good results.

Stakeholder Participation - Adopt a brook

Kids, pupils and adults –
eagerly investigating brooks
and their biota

. . . and lending a helping hand

Urban Example: Forelle 2010, Hamburg

Stakeholder Participation with about 80 adopt-a-brook groups resulted in

- Restoration of the river bed, re-induced turbulence
- Re-gaining of the former trout brooks in the middle of the city
- „Trout 2010“ = Best Practice-project, now adapted for Hamburg WFD-Programs

www.hamburg.de/forelle

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Stakeholder Participation in Rural Situations

Feelings – between scepticism and strong interest

At last: IF there is acceptance, active co-operation follows

Restoration of Habitat

Stakeholder Participitation

One stone in a brook

is better

than ten ashore . . .

Habitat Restoration is just Fun !

- Have a look for 75 t of gravel,
- Then: for 75 „Waldfeen“ and „Naturburschen“

Habitat Restoration is just Fun !

Hold some drinks, sausages and steaks available . . .

It really works!

Habitat Restoration and Fun - Results

Narrowing of the channel by adding characteristic material of the landscape

Habitat Restoration and Fun - Results

- The river positions the material by own dynamics

- Rheophilic organisms re-appear

Habitat Restoration and Fun - Results

- Narrowing of the channel by adding characteristic material of the landscape
- Rheophilic organisms re-appear

Don`t be afraid of dead wood!

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Large woody debris, trees, stems, branches, twigs . . .

We need the trees.

Trees are most important features for

- Habitat development
- Erosion control
- Last, but not least: Adaptation in climate change

Lack of trees

- Is Habitat loss
- Erosion and costs
- Overheating of cool brooks

We need the trees.

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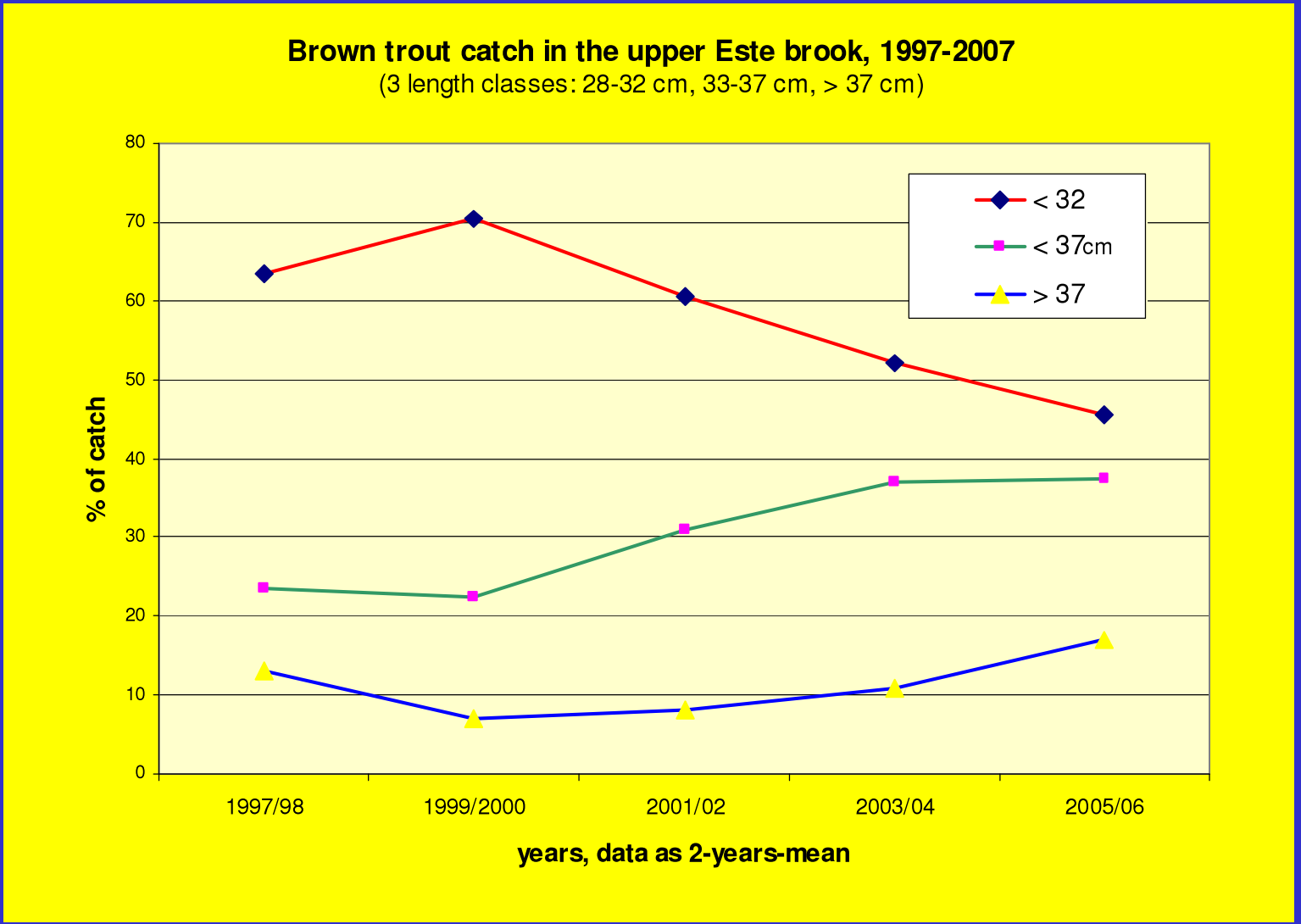
Enhancement of brown trout catch

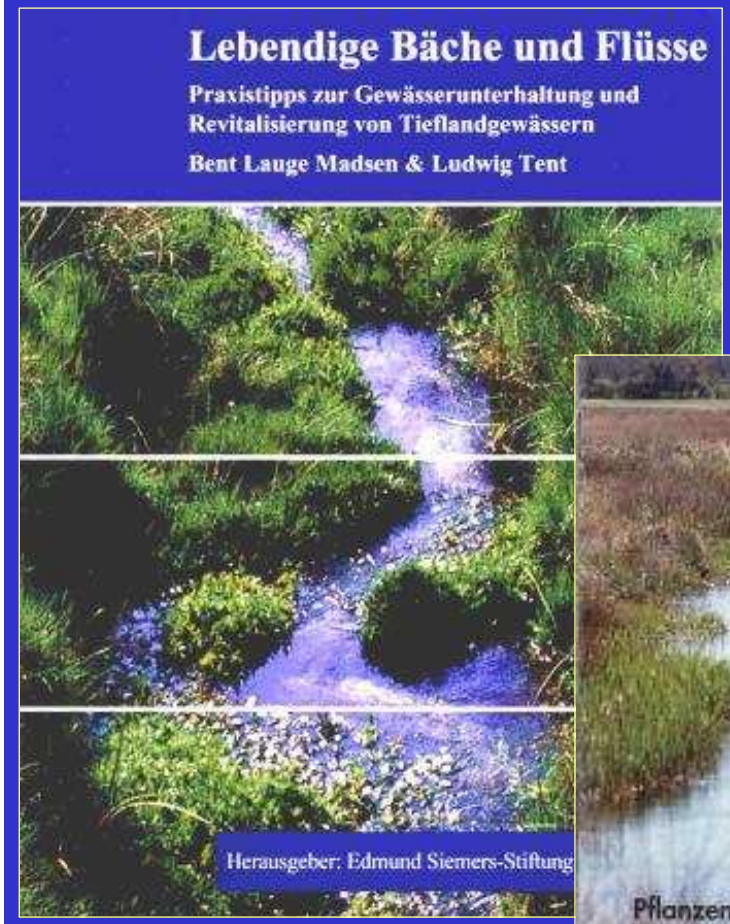


„New“ developed alder gallery, now 25 years old, results in more abundant habitat – fish size increases.

We need the trees.

Thank you very much for your interest !

Danish Examples, translated …



Life-long learning – practised:
Education materials available