



## Restoration of hydromorphological quality of rivers in Latvia – within LIFE GoodWater IP and beyond it

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EU LIFE Programme integrated project

“Implementation of River Basin Management Plans of Latvia towards good surface water status”



## River restoration

A variety of measures aimed at restoring the natural state and functioning of the river system to support the ecological, recreation, flood management and landscape development.





# What harms our rivers?

Straightening of riverbed

Migration barriers

Exploitation of HPP's

Land use

Pollution

Other human activities





## Most popular measure in Latvia – cleaning of riverbed





## In recent years – also other measures





# Longitudinal connectivity

Very important measure

Implementation is rather complicated

Popularity is rising

Two approaches:

- complete or partial removal of barrier
- ensuring passage for fishes and invertebrates



## Longitudinal connectivity

In Latvia only gaining momentum

Only two sites monitored, in both improvement is confirmed

In LIFE GoodWater IP:

- fish pass in Age HPP
- passage in at least two culverts
- other, as much as possible





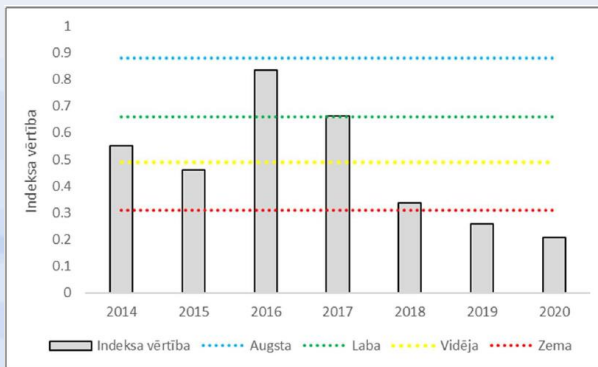
## Straightened riverbed

In Latvia:

- only few forced remeandering projects
- traditional way of channel maintenance is rather drastic

In LIFE GoodWater IP:

- less drastic channel maintenance
- artificial wetlands and spawning grounds
- construction of instream structures





## Creating instream structures

Worldwide: popular yet contradictory measure

In Latvia: very few registered projects, but many small-scale unregistered activities

In LIFE GoodWater IP:

- wooden constructions (started)
- artificial spawning grounds (planned)



## Instream structures – GoodWater IP





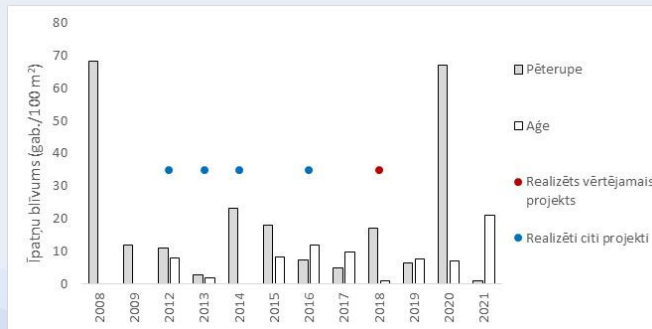
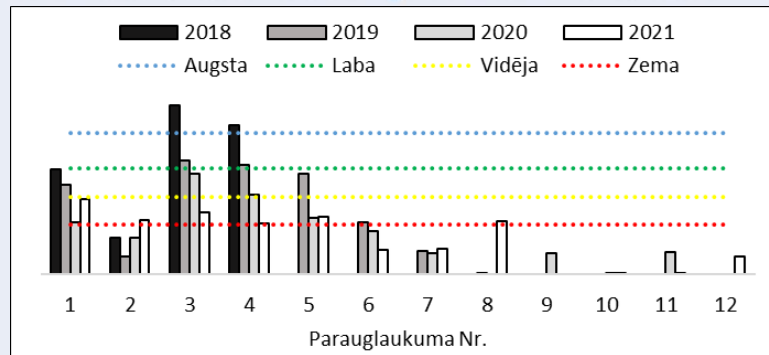
# Cleaning of riverbed

Dealing with consequences not causes

Sometimes the only possible solution

Most popular measure in Latvia

Can have good effect, but this effect is temporary



## Cleaning of riverbed

Within GoodWater IP

Only once:

- to give a momentum to reach heavily clogged with sand and wood
- part of the wood was later returned





## Other activities

### Sufficient ecological flow in HPP:

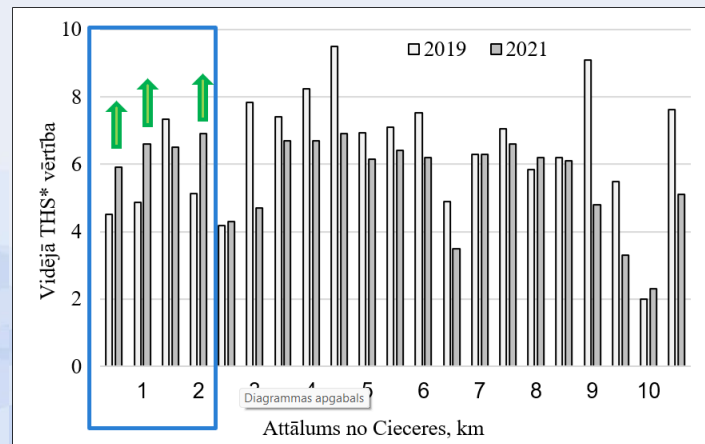
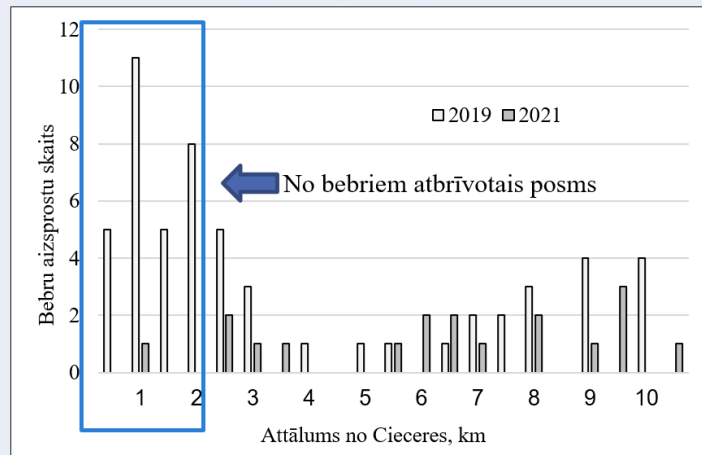
- we are ready to work with MesoHABSIM
- main struggle is to get the calculated e-flow in water permit

### Reducing impact of beavers:

- destroying dams and limiting of population

### Dealing with two-legged beavers:

- stone-pile weirs is a bad habit







# Thank you!

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[www.goodwater.lv](http://www.goodwater.lv)

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