

Setting up a national restoration monitoring criteria

“better now than never”

Saija Koljonen, PhD, Finnish Environment Institute SYKE

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Before restoration



After restoration



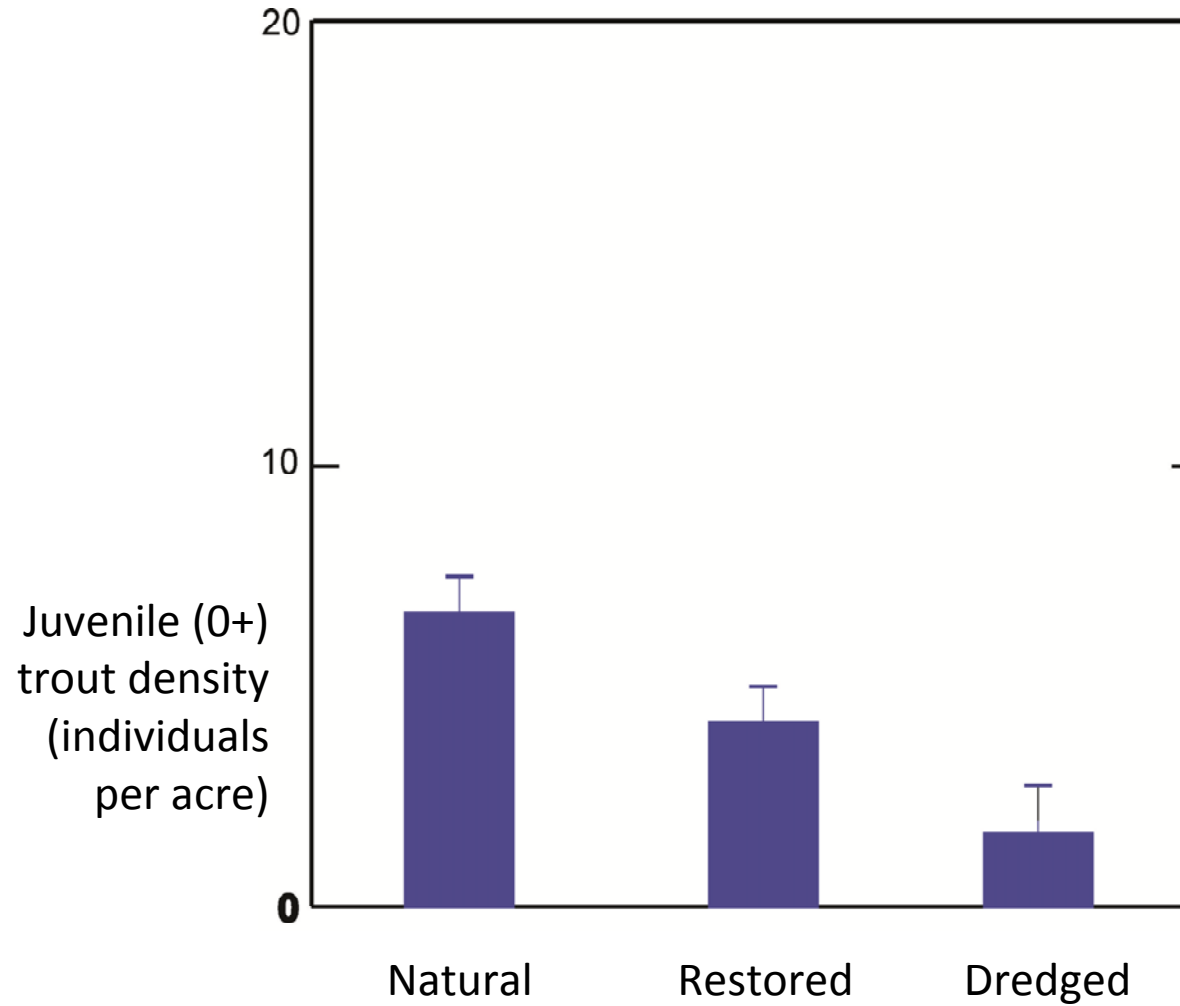
Polycymaking and monitoring restoration

- Need for good quality freshwater is still increasing and globally highly important
- There is already a lot of monitoring for WFD
- Other EU policies like Flood, Habitat, Bird, Biodiveristy should be considered equally important
- We have some good examples where restoration clearly enhances ecological state – or at least helps it to remain

How monitoring will help in mainstreaming restoration measures?

- Restoration goal realistic or not?
- Need to prove it
 - Success stories needed
- Or was it a bottleneck after all? Should we mainstream something else?

All Finnish sites with fish monitoring for WFD



Data & figure: Teppo Vehanen, Finnish Game and Fisheries Research Institute

Setting up a monitoring programm

GOAL for restoration



METHOD



SELECTED MONITORING VARIABLE



RELATES TO WFD



SUGGESTED MONITORING METHOD

GOAL for restoration ***More available spawning and rearing habitat***

➔ METHOD

Increasing heterogeneity, boulder placement and gravel introduction

➔ SELECTED MONITORING VARIABLE

Depth, velocity and bottom roughness

➔ RELATES TO WFD and possible OTHER MONITORING METHODS

Monitoring fish population densities and age structure

➔ SUGGESTED MONITORING METHOD

*Cross sectional depth, velocity and bottom roughness (B-A,
number of sections in relation to width and length)*

*If monitoring is possible for several years before and after a
fish population monitoring is highly recommended*

In reality

Implementing monitoring to a restoration project

- Restoration requires a permit – permit will be given if monitoring program is included
- State contributes to the project
 - easy to require certain monitoring
- Large projects
 - there is already some money which could be directed on monitoring
 - related to the project goal (or otherwise bottleneck might be not known)
- Small projects, volunteer work, NGO's
 - small budget, inexpensive methods, enthusiastic participants
 - more related to the project method than overall goal

“The method used depend
on the project goal.”

saija.koljonen@environment.fi

