

Restoration of float way channels

Practical experiences, practices and methods -
How do we work along Vindel river?

Lessons from the restoration projects

Environmental Restoration Project Vindelälven/Piteälven & Vindel River LIFE

Daniel Holmqvist, Ume/Vindel river Fishery Advisory Board



Why restoration?

The ideal environment for salmon and the ideal environment for timber floating are opposites. Therefore, any measure that improves the transport of the timber have a negative effect on salmon

**(Written statement from the owners of fishing along the Vindel river
1928 Water Court in Umeå)**



Our previous restorations

- Repeated and straight riffle crests & pools***
- Approximately 30-40% of dredged material were put back***
- Watercourses were adapted to meets anglers needs (nice fishing spots)***
- Fish stocking with limited genetic knowledge***
- Limited monitoring and scientific documentation***



A yellow excavator is positioned on a rocky riverbank. The excavator's arm is extended towards the left. The background features a dense forest of tall evergreen trees under a bright sky. The scene is a natural setting with a river channel visible in the foreground.

Our ambition today

- All dredged material is put back; blasted structures replaced with material from the surrounding terrain**
- The result should look natural; existing natural structures are reinforced**
- LWD; trees are put in the river channel**
- Restoration of spawning areas**
- Scientific monitoring & documentation (riparian zone → fish)**
- Limited stocking of fish (alternative methods & correct genetic mtrl.)**
- Better management of our watercourses**

Pristine stretch small river



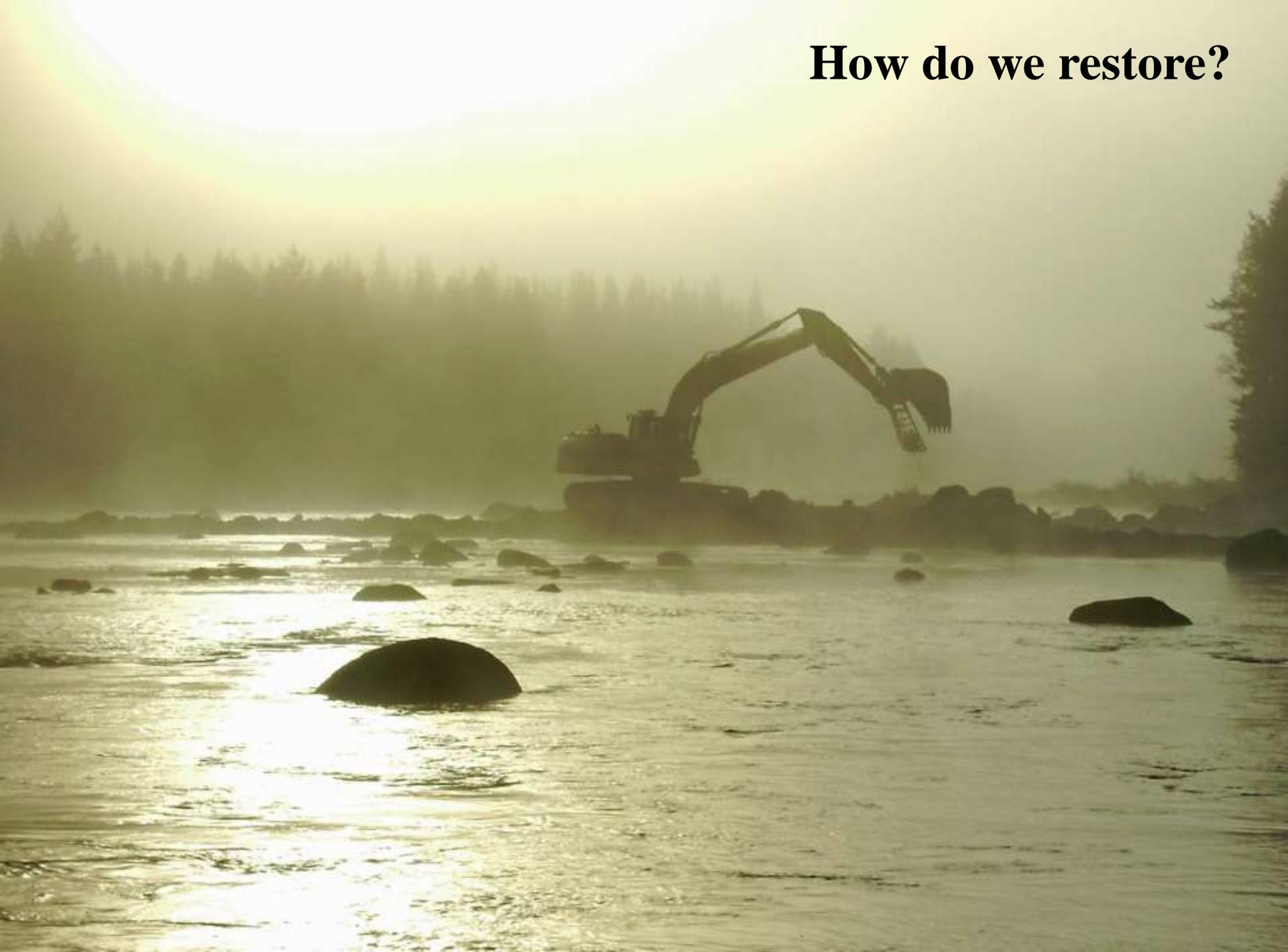
Few pristine sites in the mountain rivers



Pristine stretch medium sized river



How do we restore?



Large boulders



LWD



Gravel







I Vindel River LIFE jobbar vi med att återställa 22 flötningspåve att återfå variation i både vattenströmmar och livsmiljöer för många strand- och vattenlevande organismer. Denna 360-bild visar Lidsbacken. Bäckfärans raka dragning och de sprängda (och därmed vassa) stenarna i strandkanten vittnar om att flötning har pågått i bäcken.



Areas affected by environmental recovery in Vindelälvens basin

Total gained area (ha)

Vindel river:

18,6ha

Total gained area (ha)

Tributaries:

74,1ha



In total roughly 18,6ha highly productive environments for salmon and trout parr are recreated entirely in the main river; Sävar river entire production area is estimated 21ha, 15ha in Rickle river and river Ljungan 17ha (ICES 2014)!

It does not matter how much stone, gravel, or dead wood that is added if fish stocks did not have time to reproduce before they are harvested. Sustainable management must be based on the natural fish production capacity!



Thanks!

daniel.holmqvist@lycksele.se