

# Wild salmon in Lithuania

*TO BE OR NOT TO BE*



Kęstutis Skrupskelis  
Lithuanian Hydrobiology Society

# Wild salmon in Lithuanian - HISTORY

*Till the end of XIX century – salmon high economically valuable fish (catches in Nemunas basin up to 5 thousands tons per year during spawning migration);*

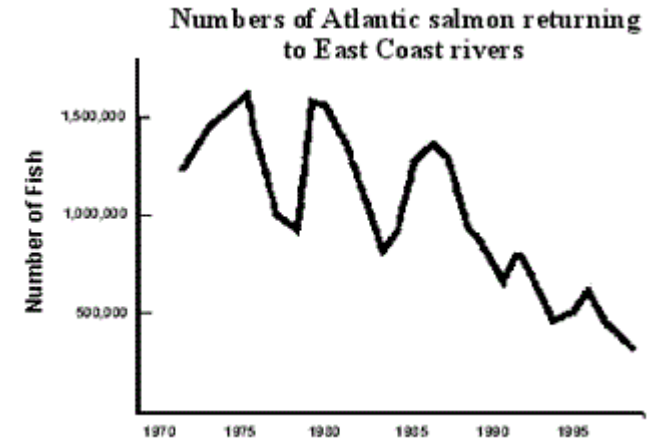
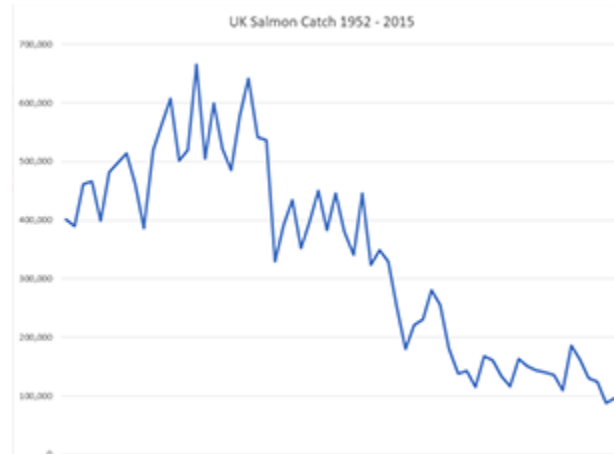
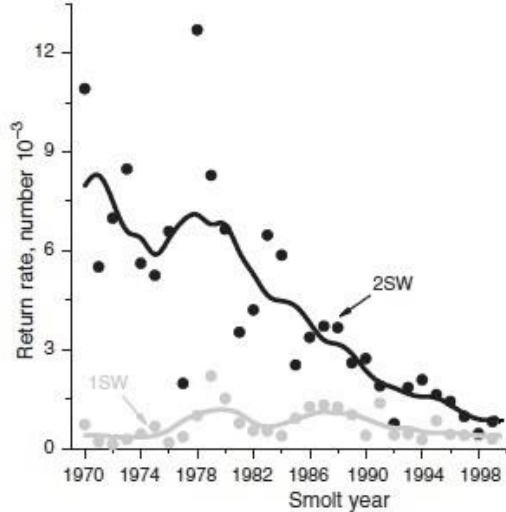
*More than 300 rivers with wild salmon populations in Nemunas basin;*

*Free spawning migration route up to 600 km long to the tributaries in riverhead of Neris;*

*Restrictions for salmon protection mentioned in First Statute of Grand Duchy of Lithuanian (1529)*



## XX c. decline of salmon populations over the world...



### MAIN REASONS:

- *overfishing;*
- *chemical and biological pollution;*
- *changes in rivers hydrology (canalization, melioration, dams, etc.)*





Seems to be enough? No, we have some extra add's by Lithuanian 😊



1959 – dam on Nemunas river!  
Loss of 30-40% of Lithuanian  
salmon population;



1960-2000 hydropower stations,  
dams, meloration and  
canalization on salmon spawning  
sites destroys more than 60% of  
natural salmon rivers in Lithuania

*Since 1981 Salmon and sea trout – on the list of The Red Book of Lithuanian...*



## Weird poaching “traditions” during salmon spawning migration...

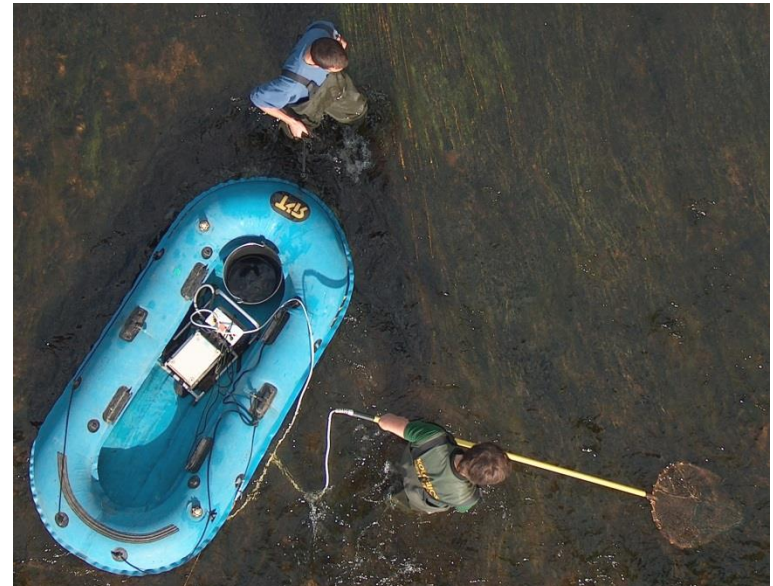




**Till 1990-ies no one cares about salmon..**

**ReSEARCH** for salmon started in 1991 after declaration of independence

Monitoring program for salmonids started in 1995 (unified monitoring program from 1998);  
Enviromental regulations (1999) for commercial fisheries in the Baltic sea, strict regulations inland (no fishing in rivers), Salmon state protection plan; Restocking programs started in 1999... But nothing works and we don't know why...



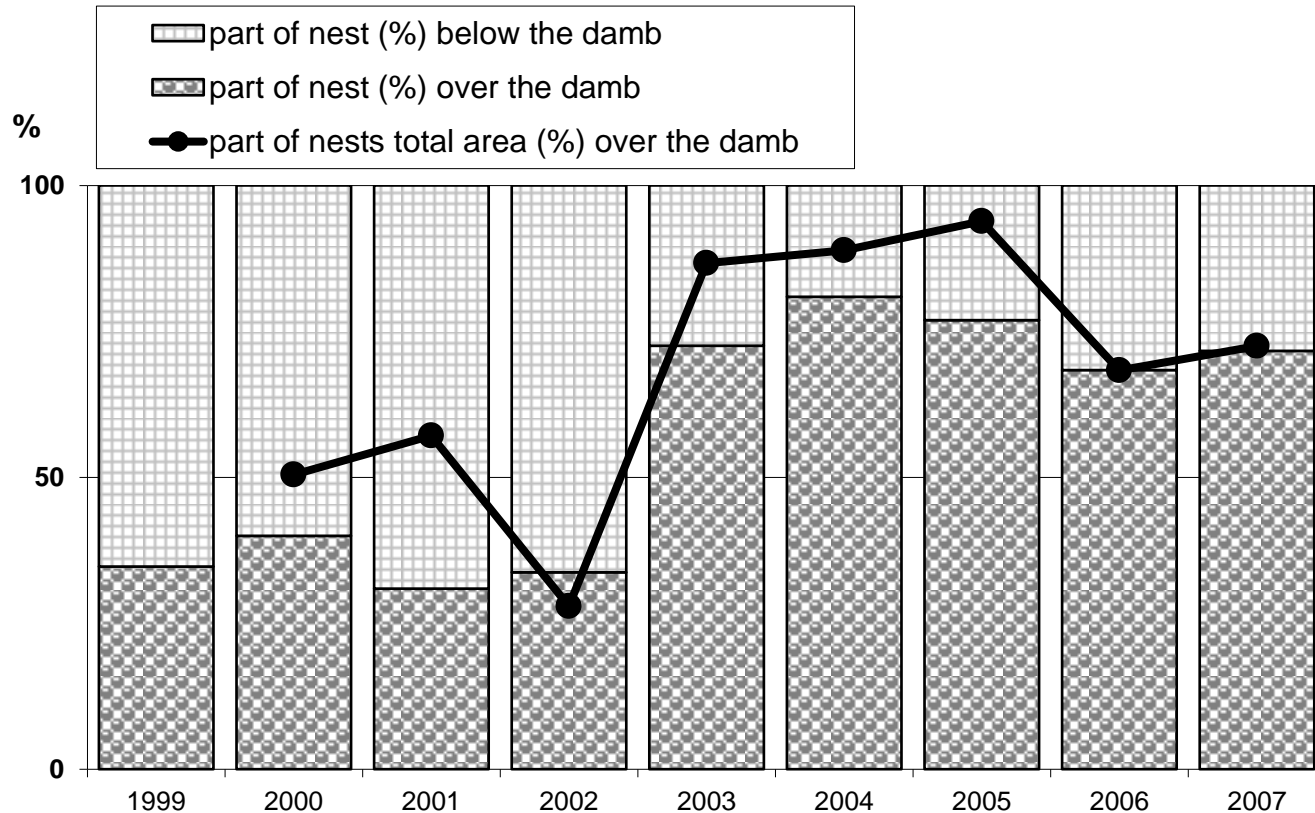
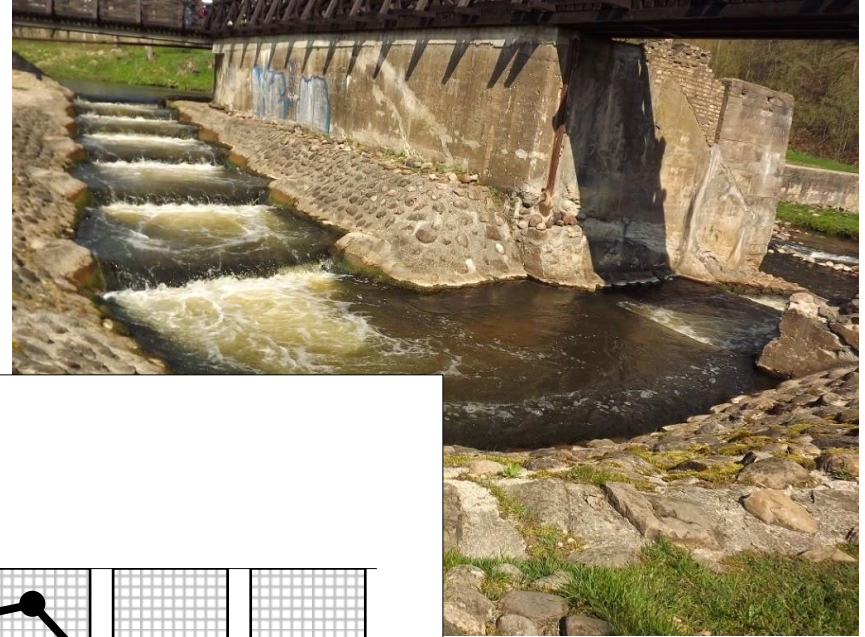


We found almost extinct salmon, made strict regulations for protection, but we forgot to protect habitats...  
Salmon needs free flowing rivers...





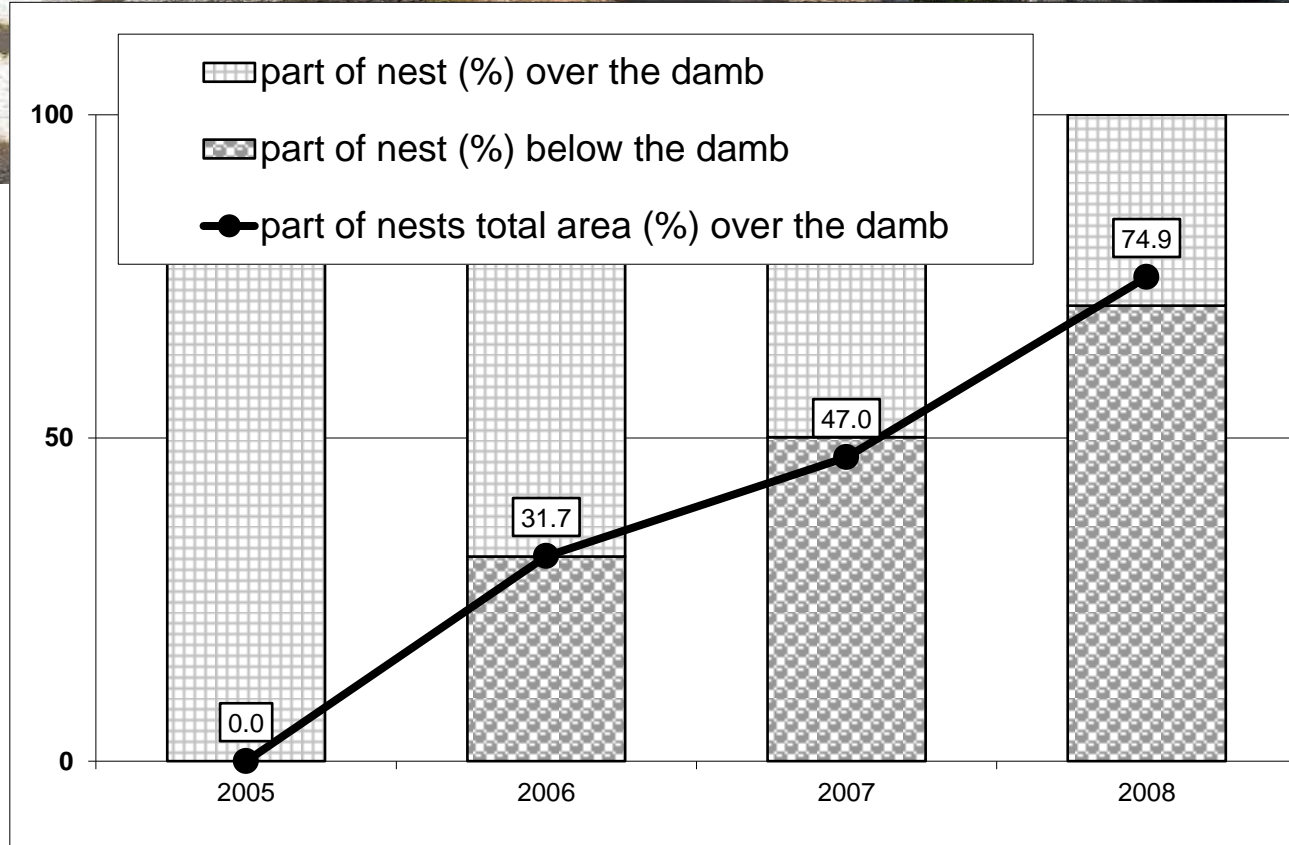
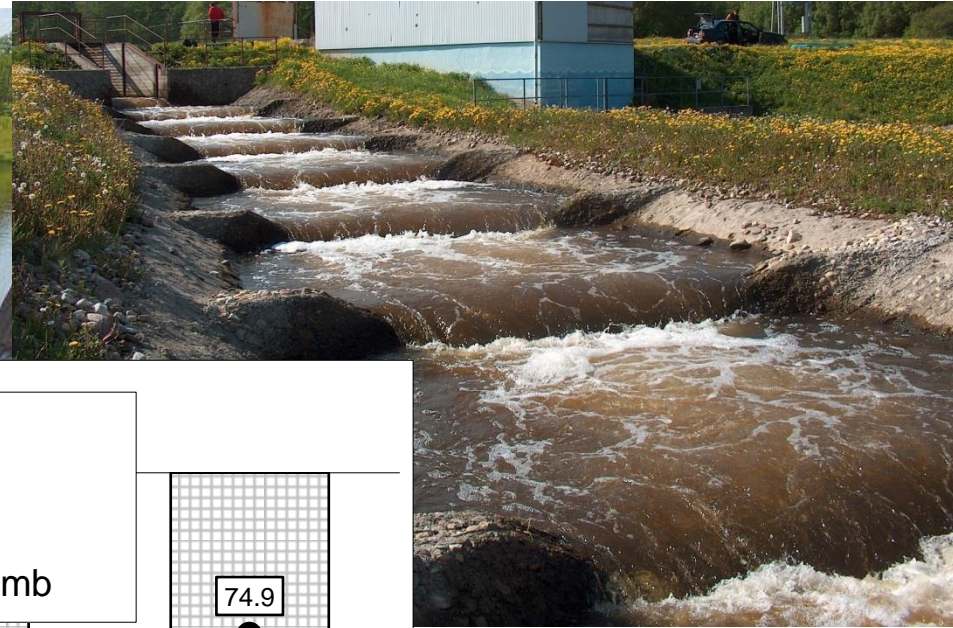
## Restoration of habitats – building fish ladder in Vilnia river (2002)



Ref. Impact of small hydro-power plants on salmonid fishes spawning migrations; S. Stakėnas, K. Skrupskelis, Enviromental protection engineering, 2009, Vol 1, No. 2;



## Restoration of habitats – building fish ladder in Siesartis river (2004)



Ref. Impact of small hydro-power plants on salmonid fishes spawning migrations; S. Stakėnas, K. Skrupskelis, Enviromental protection engineering, 2009, Vol 1, No. 2;

**In the end of 2016 under the high water velocities  
Belmontas dam on the river Vilnia collapsed...**

**One more natural and free flowing  
river in Europe?!**



**NO. We build a new and the bigger one!**



# Restocking (started in 1999):

State salmon fish farm „produce“: 200 k of salmon parrs (1g weight) and ~20 k smolts (40 g weight) annually

Amazing restocking effect in Siesartis river (Nemunas basin), from almost extinct population to highest wild salmon parr density in Lithuania (after restocking program ends) in less than 10 years.



## NGO input in Salmon protection (2010)

Public inspectors (volunteers with no rights to arrest poachers) made substantial effect on protection of spawning salmon.



Spreading information about salmon in Lithuania also makes sense!





**Since 2011 Salmon removed from the list of the Red Book of Lithuanian**

**In general diadromus Salmonids populations during last 15 years  
increased more than 10 times and still increasing**

**More than 30 k of adult salmon comes back for spawning every year**



# **Salmon population restoration in Lithuania was successful but protection must continue!**

1. Protection of habitats – avoid dams, free-flowing rivers must be the main goal!
2. Protect natural populations (wild spawners) from poachers or even anglers impact!
3. Continue restocking programs – stop mixing populations from different river basins!
4. Involve NGO to help spread the information about Lithuanian salmon and take a part on wild salmon protection!