

RIVERWATCHER

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F I S H C O U N T E R

# Why would you use a fish counter

- For comparison of catch figures and movement pattern of the fish
- Evaluation of the results of rearing and smolt releases
- Assessment of the influence of different environmental factors
- Assessment of the efficiency of the fish ladder
- Species recognition



# What is going on in our rivers?



Rivers take their chemistry from the environment around them



Organic matters provide the life to visitors and inhabitants that rely on the flowing stream



Changes need to be monitored and understood

# Solve the problems with fishways?

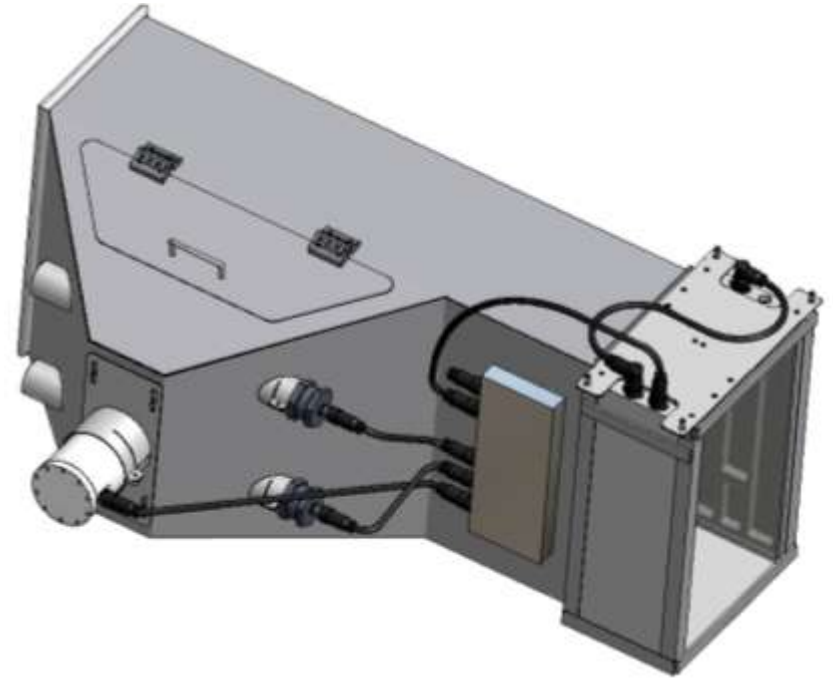
- Fish ladders are not always successful
- Some fish may not like to use it
- But we are learning how to build better constructions with regards to other species



A typical fishway with steps

# Riverwatcher 101

- Different counting methods available
- Proven technology
- Developed to minimize disturbance



Camera system Riverwatcher

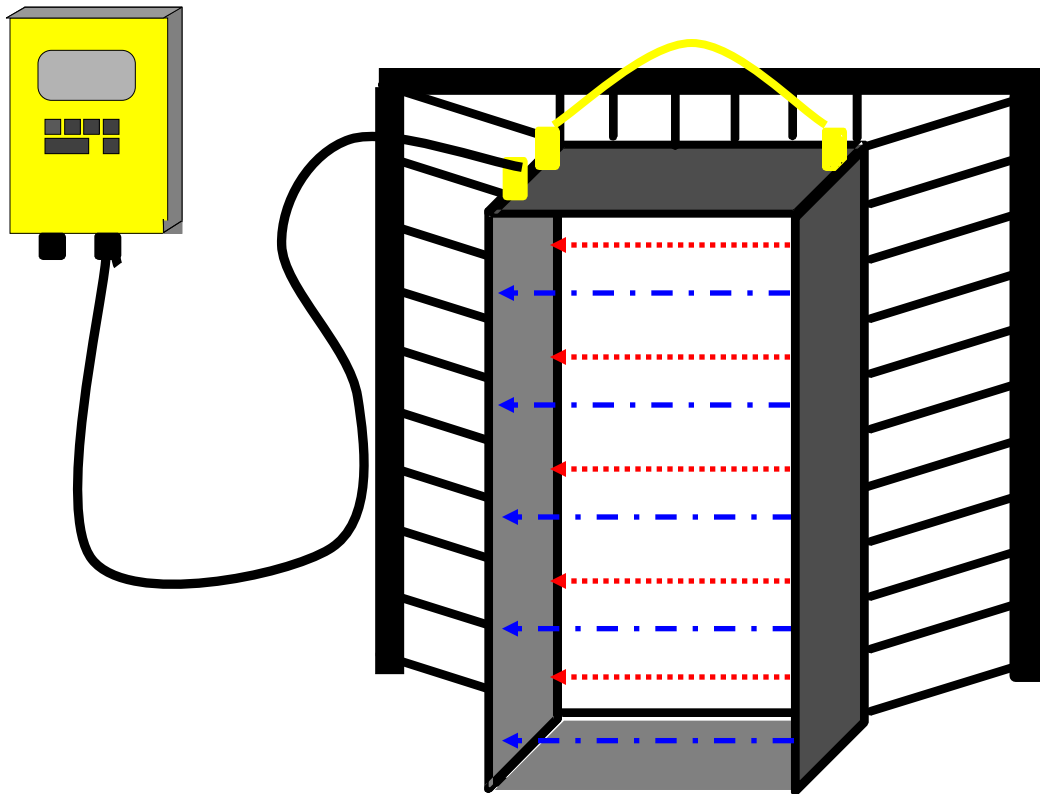
# Twenty year anniversary

- The first Riverwatcher was installed in 1992
- First international installation in 1994
- More than 300 worldwide...



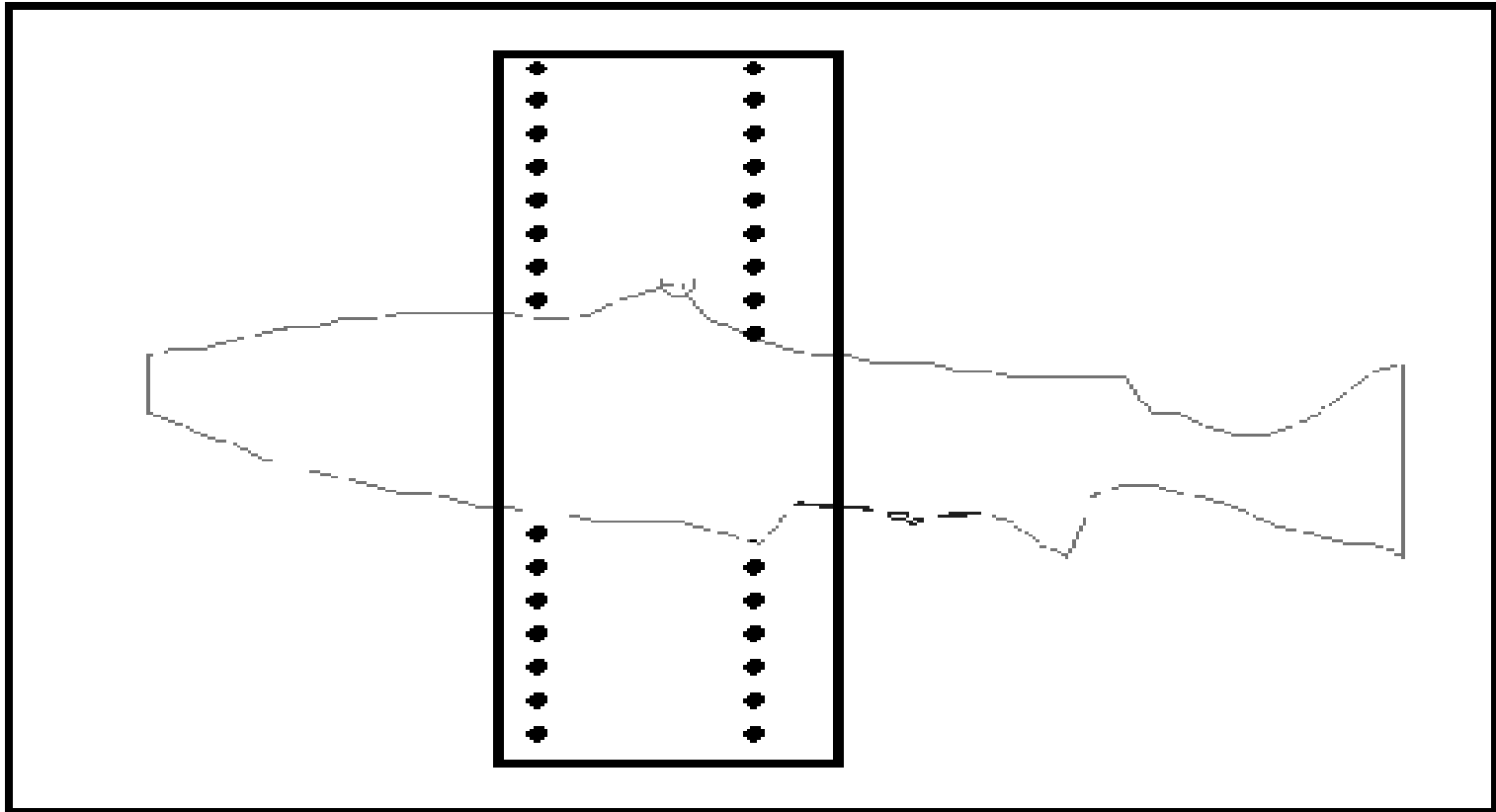
Chinook salmon migrating

# How does it work?



2 sets of diodes

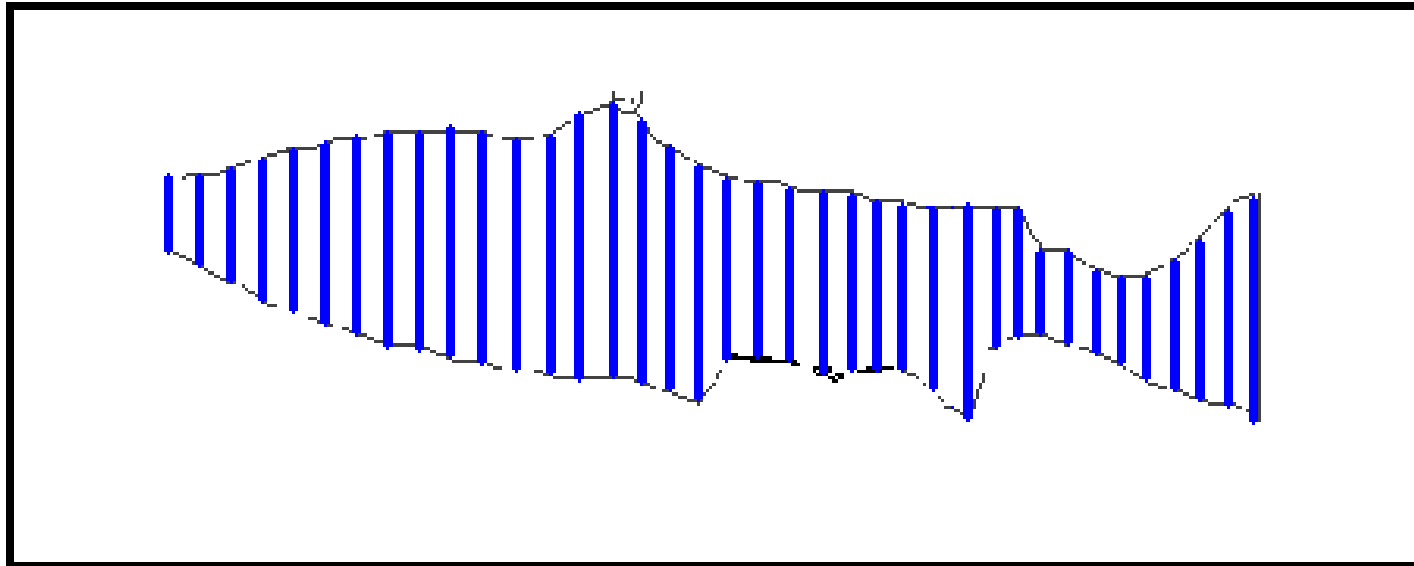
This happens when a fish swims through





# 50 beams per second

- A picture of the subject is projected when the beam is broken



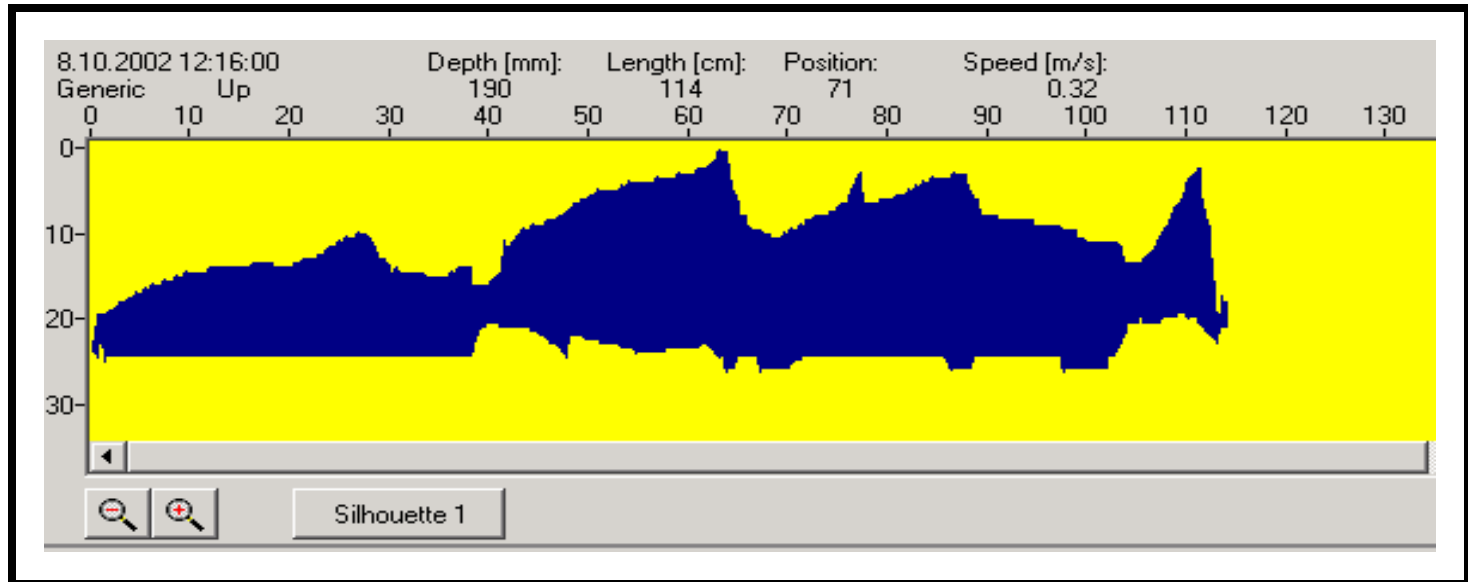
# Silhouette

- A fish passing at even speed gives a good image



# What is going on here?

- This is how the Riverwatcher sees 3 friends coming through at the same time



# Custom made solutions



# Riverwatcher with a camera system

The infrared scanner turns on a digital camera that takes pictures/videos of each fish.

- Important for identification of species
- Automatic link to other data
- Adjustable lighting
- Can be used with a solar cell



# We need to watch our rivers!



# www.riverwatcher.is

Magnús Þór Ásgeirsson, 2012

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