

IMARES, Wageningen UR

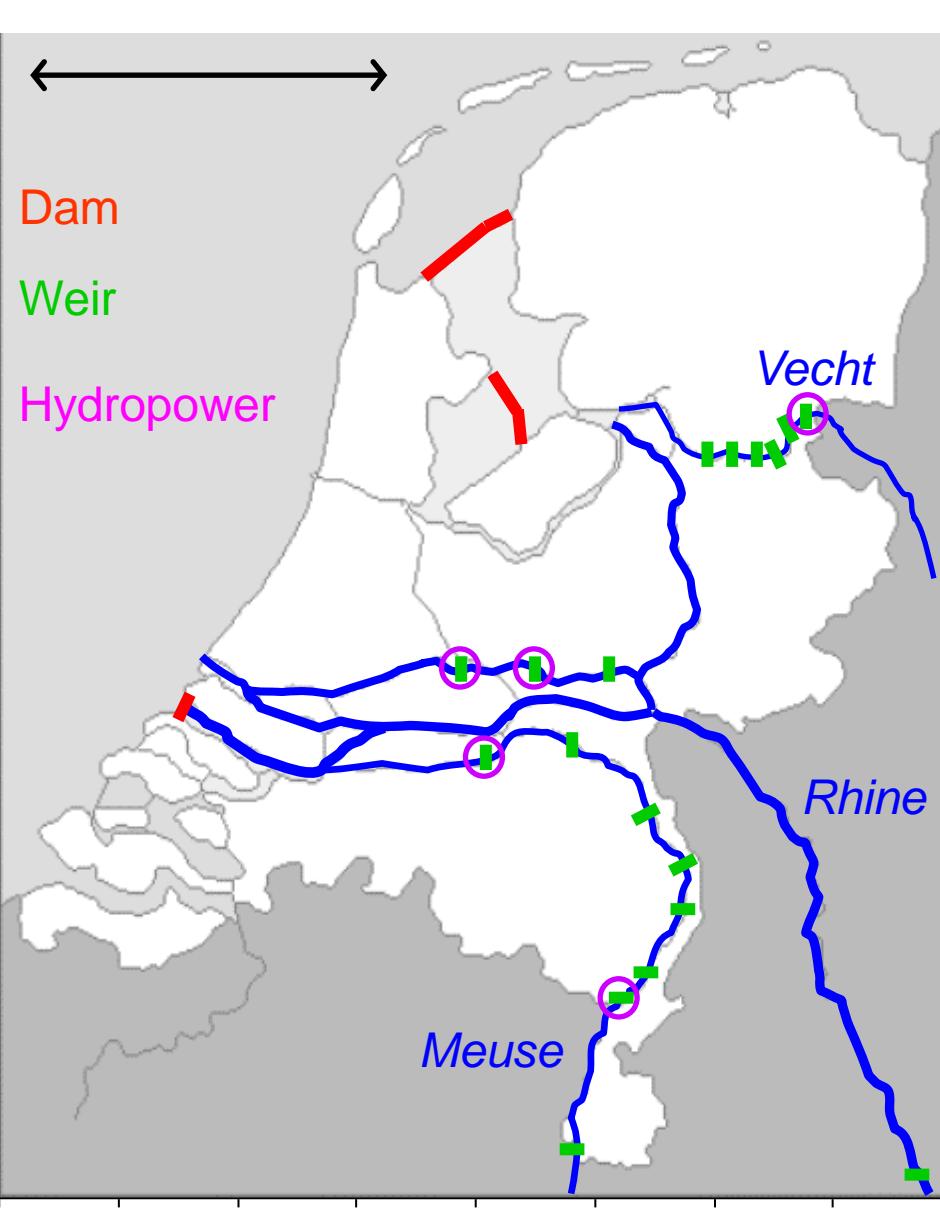
# Silver eel migration and mortality at barriers in the Netherlands

Erwin Winter

FITFISH June 2015

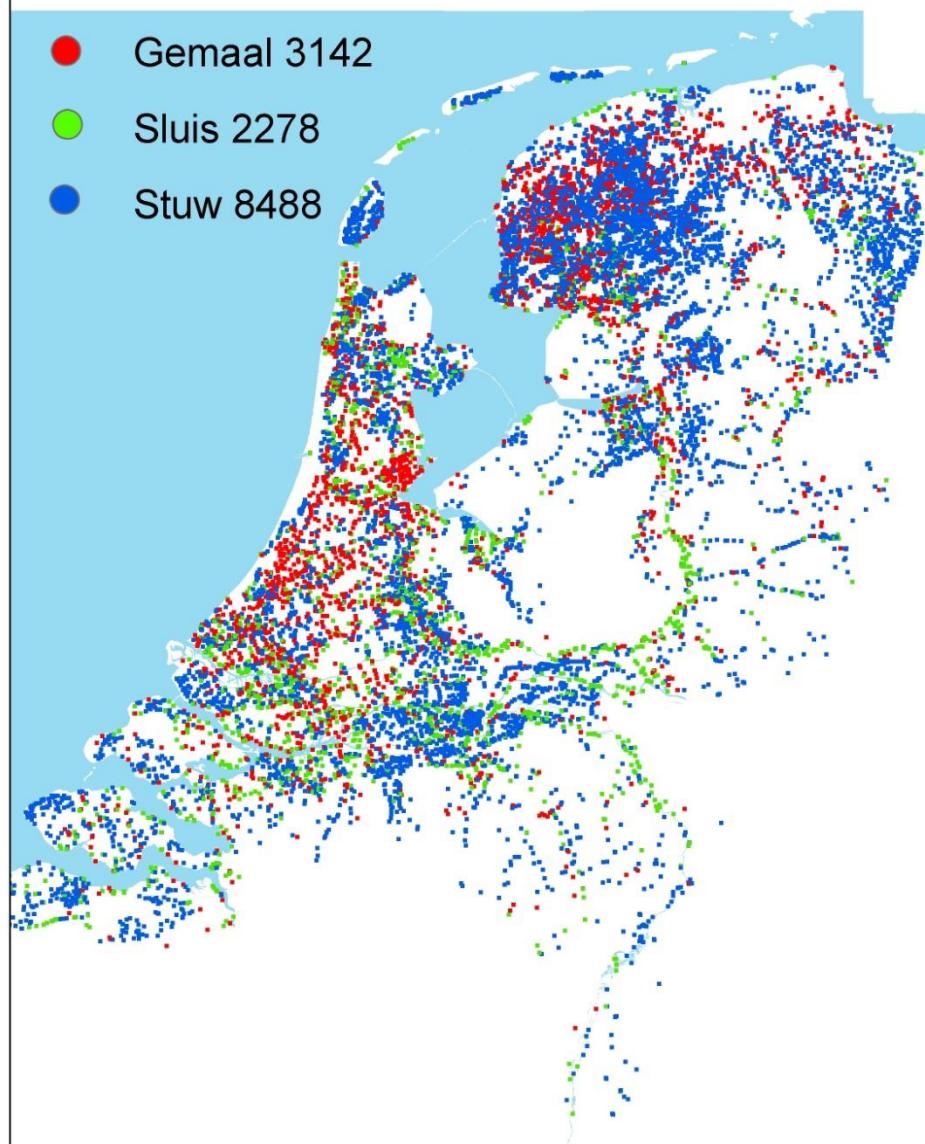


# Barriers in rivers and polders



Pumping stations, weirs, sluices

- Gemaal 3142
- Sluis 2278
- Stuw 8488



# NEDAP telemetry studies in River Meuse

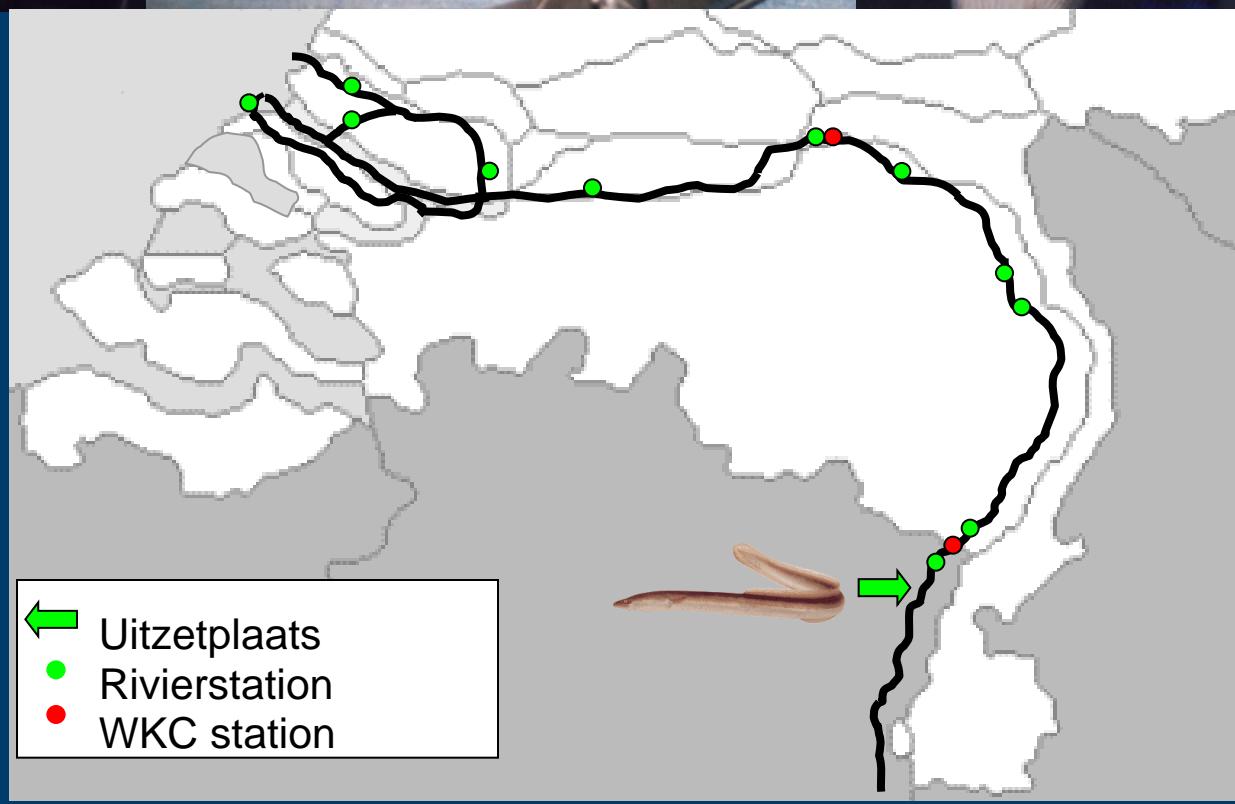


2002-2005

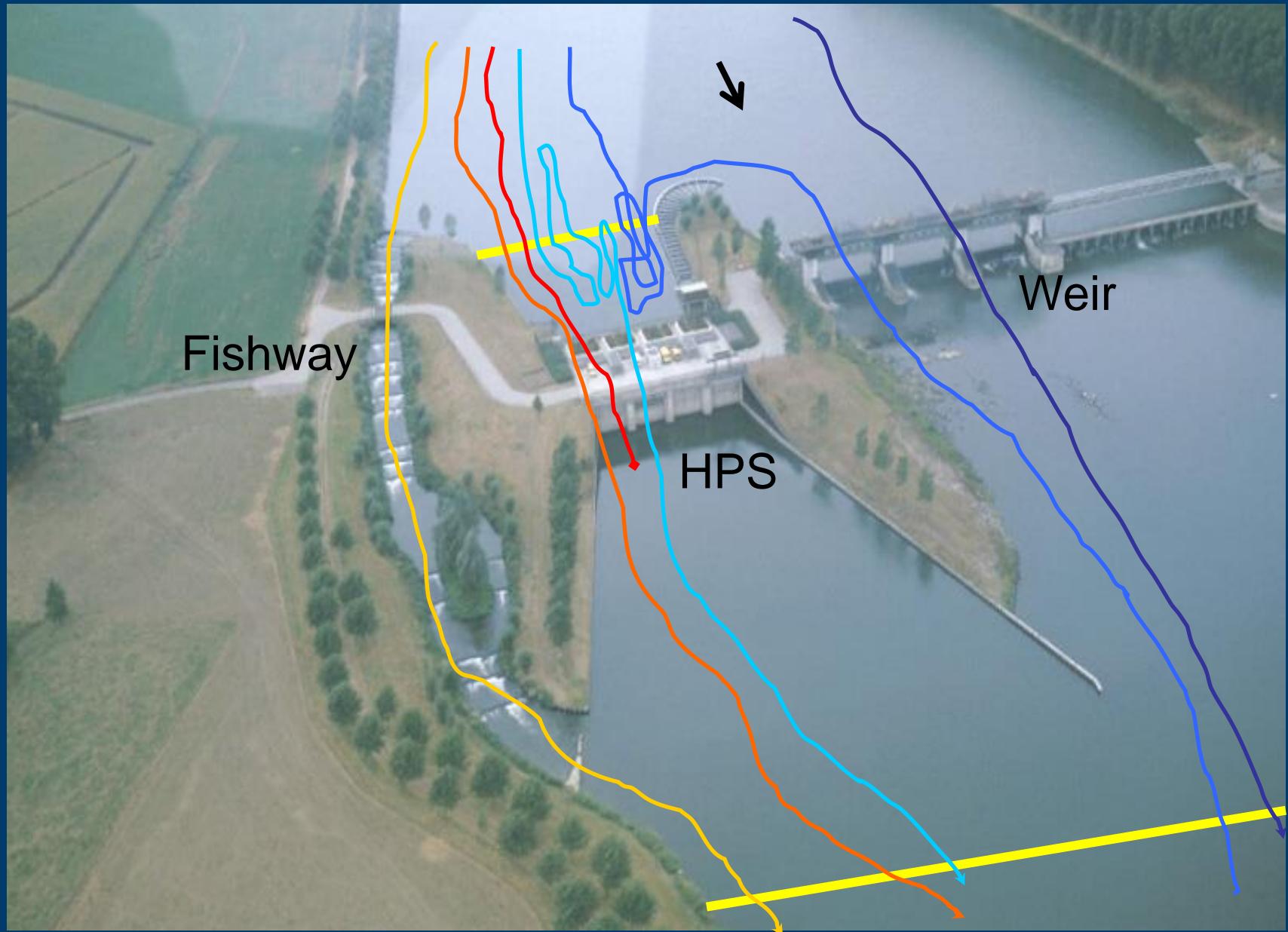
(300 silver eel)

2010-2014

(300 silver eel)



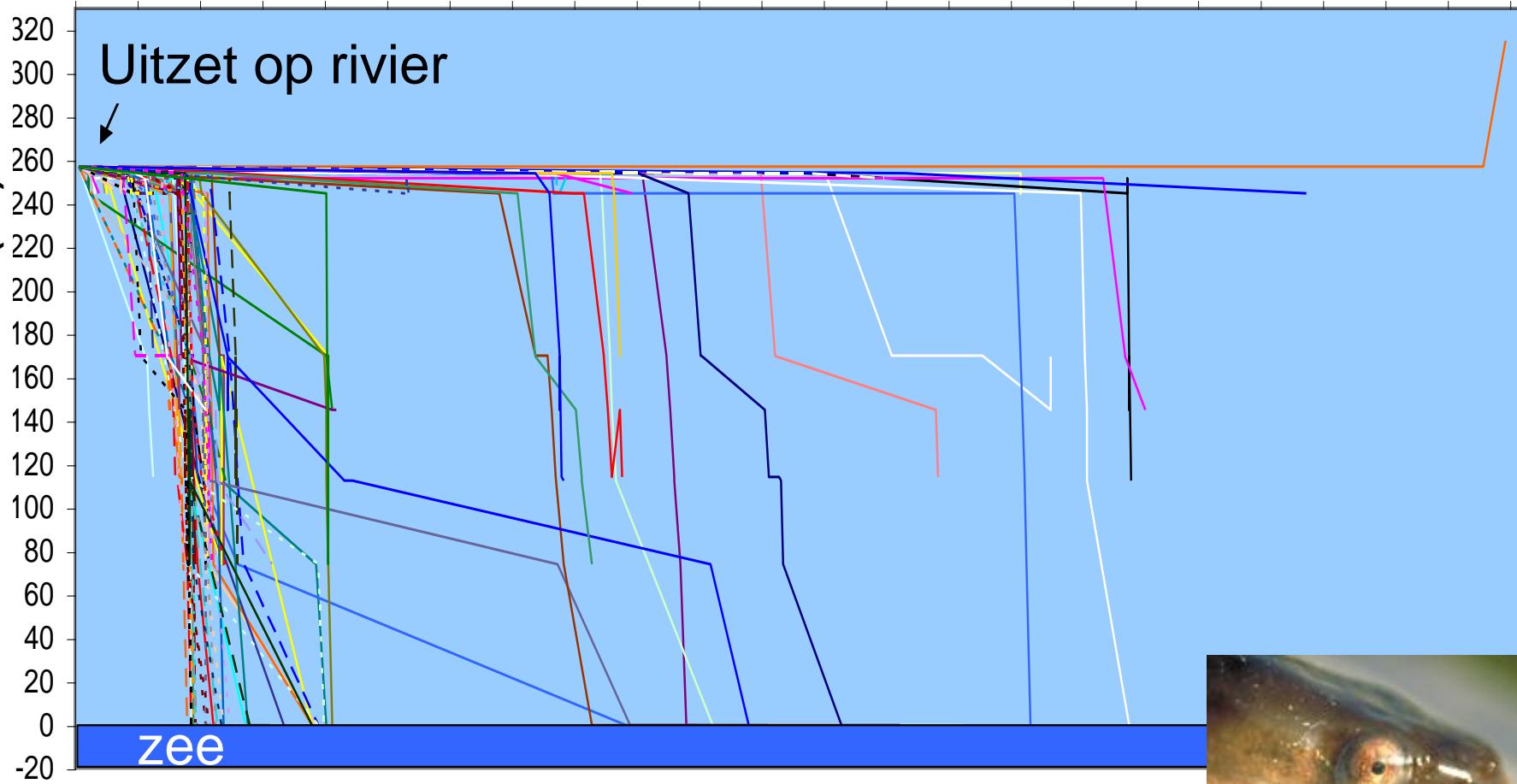
# Behaviour of silver eel at weir-hydropower station



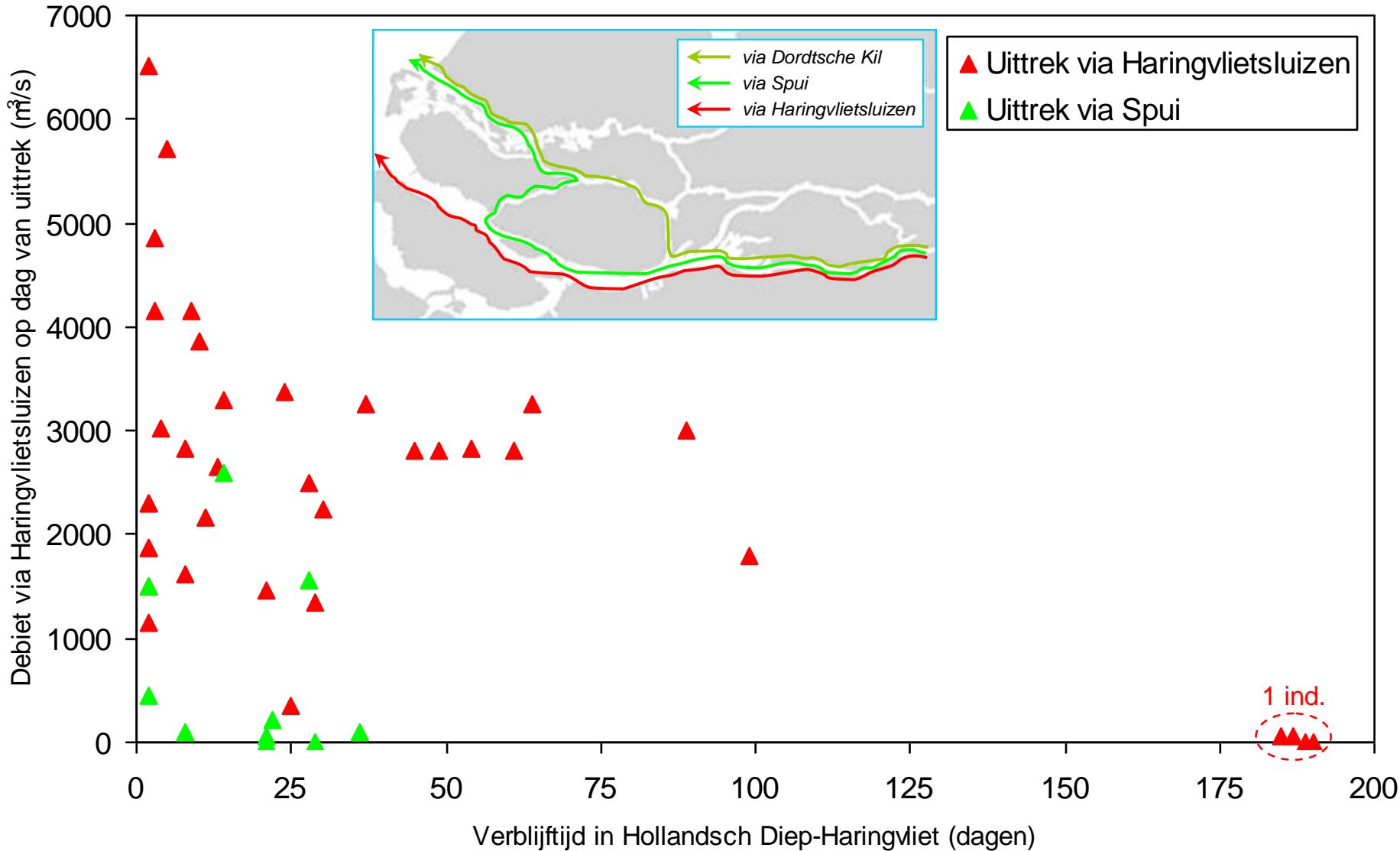
# Wanneer trekken ze en hoe schier is schieraal?

herfst winter lente zomer herfst winter lente zomer

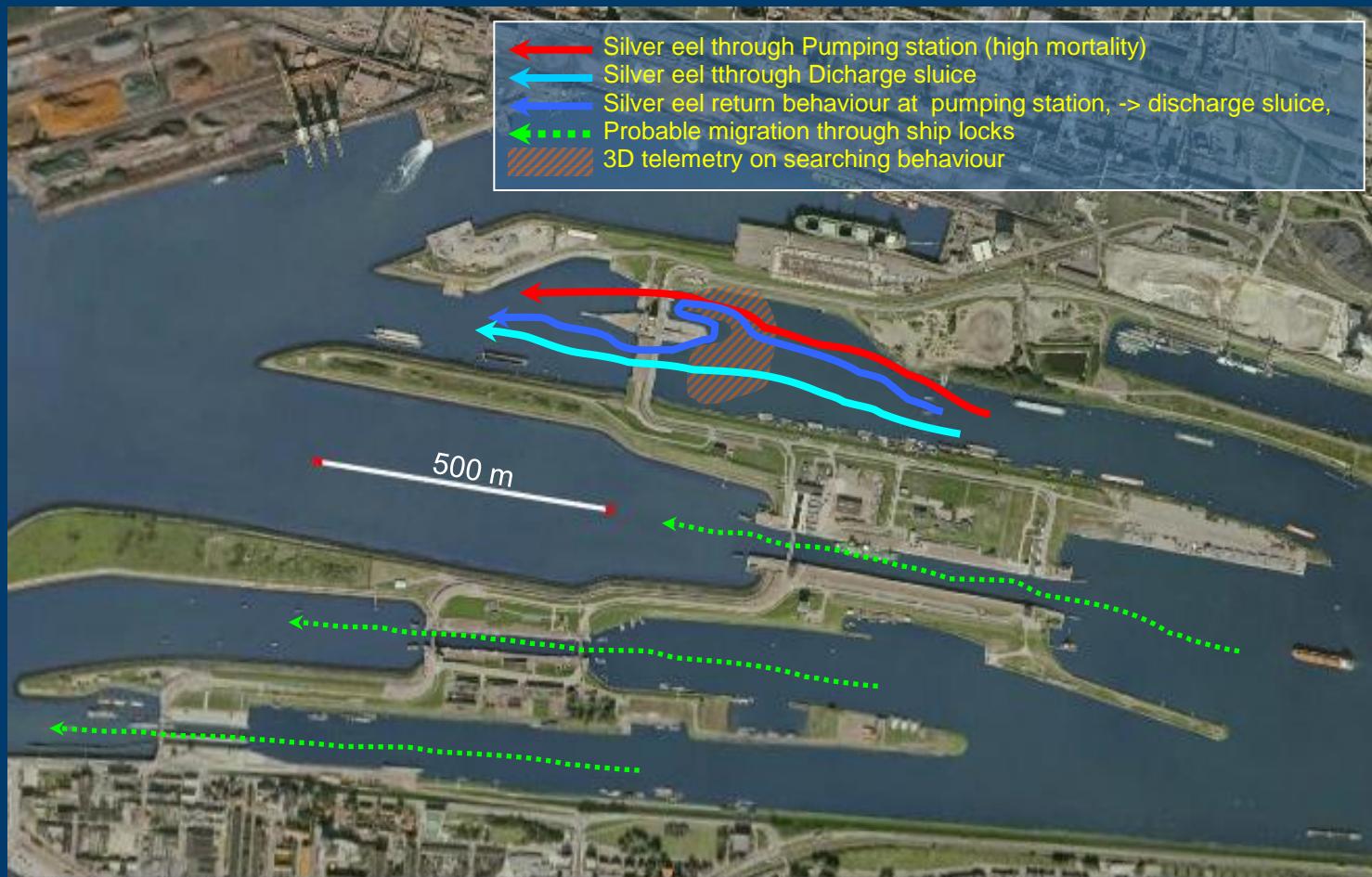
Sep- Oct- Nov- Dec- Jan- Feb- Mar- Apr- May- Jun- Jul- Aug-  
2002 2002 2002 2002 2003 2003 2003 2003 2003 2003 2003 2003 2003 2003 2003 2004 2004 2004 2004 2004 2004 2004 2004



# Migration through discharge sluices



# Silver eel migration Ijmuiden sluice-complex



100.000-180.000 silver eel at this site

RWS, Visadvies, Fishflow Innovations, Witteveen+Bos, IMARES

2007-2011

# Behaviour at trash rack pumping station IJmuiden

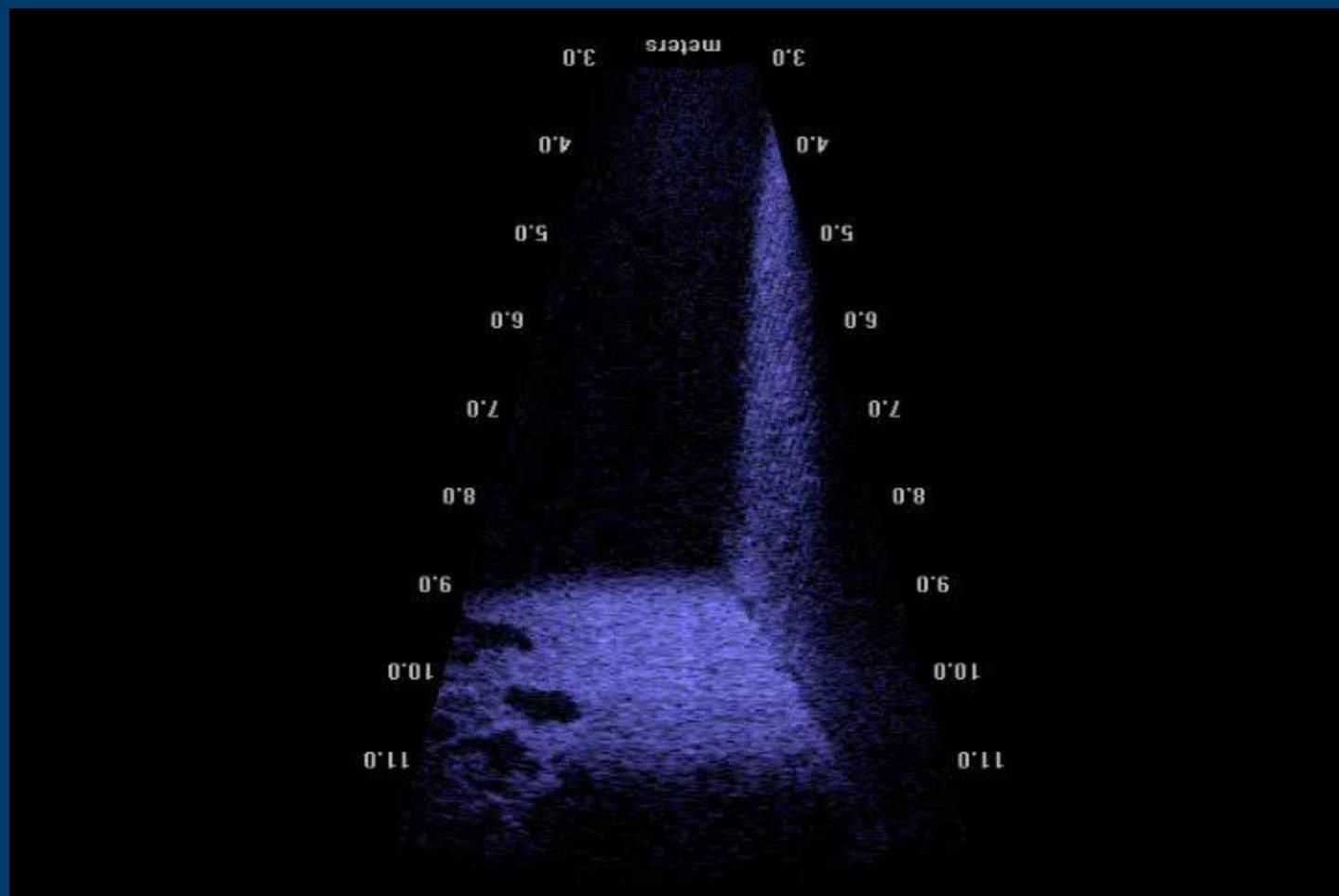
DIDSON



# Behaviour at trash rack pumping station IJmuiden



# Behaviour at trash rack pumping station IJmuiden



# Effectiviteit vispassages voor schieraal

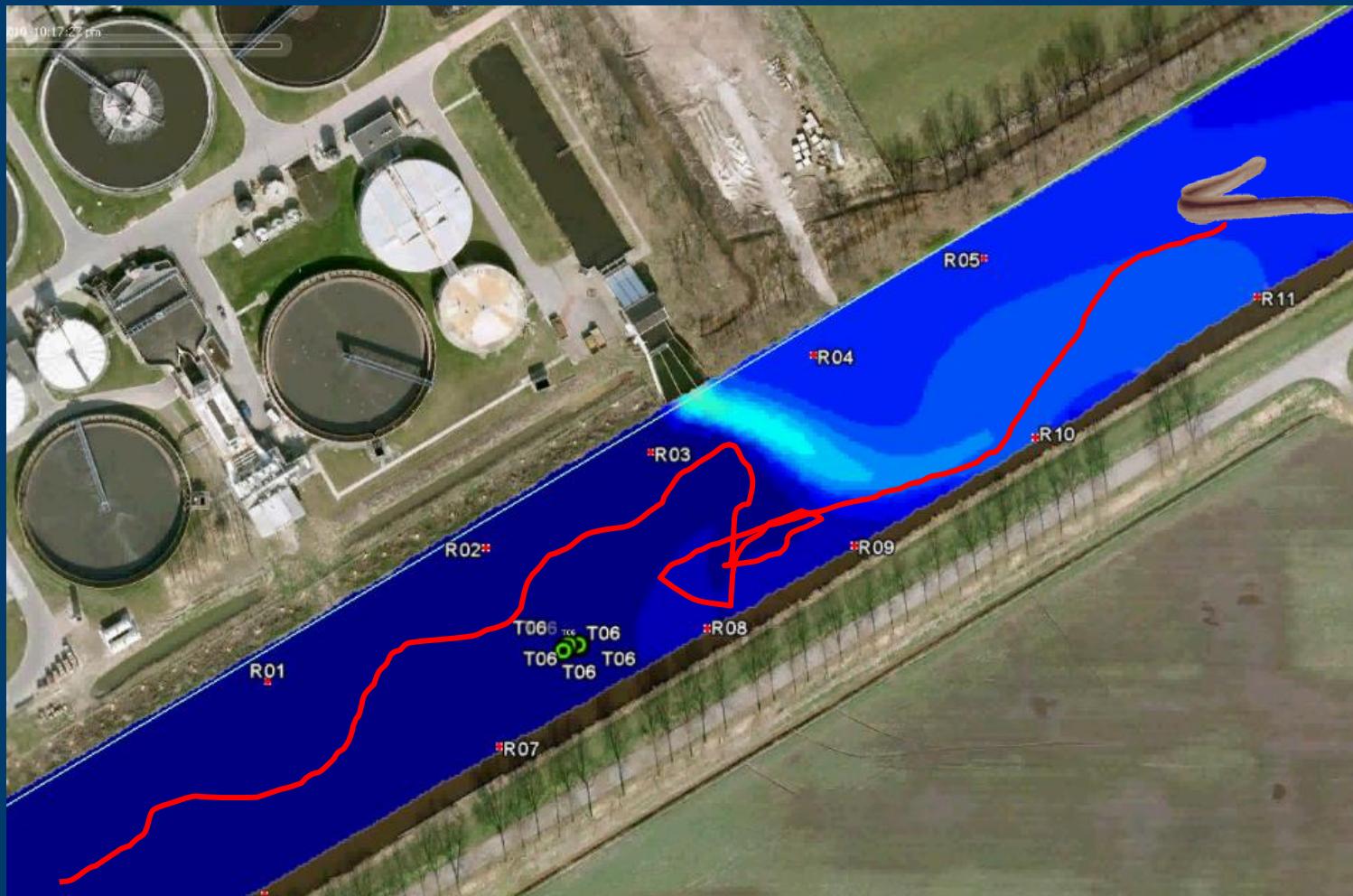


Voert vaak gering debiet t.o.v. hoofdstroom  
Daardoor alleen effectief in combinatie met  
goede viswering of geleiding bij barrière

# Niet-fysieke barrières? Pluimonderzoek



2009-2011 IMARES-DELTARES



Koppeling schieraalgedrag aan pluimdynamiek

Thanks for your patience and attention!!!

