

# European silver eel (*Anguilla anguilla* L.) migration behaviour in a highly regulated shipping canal



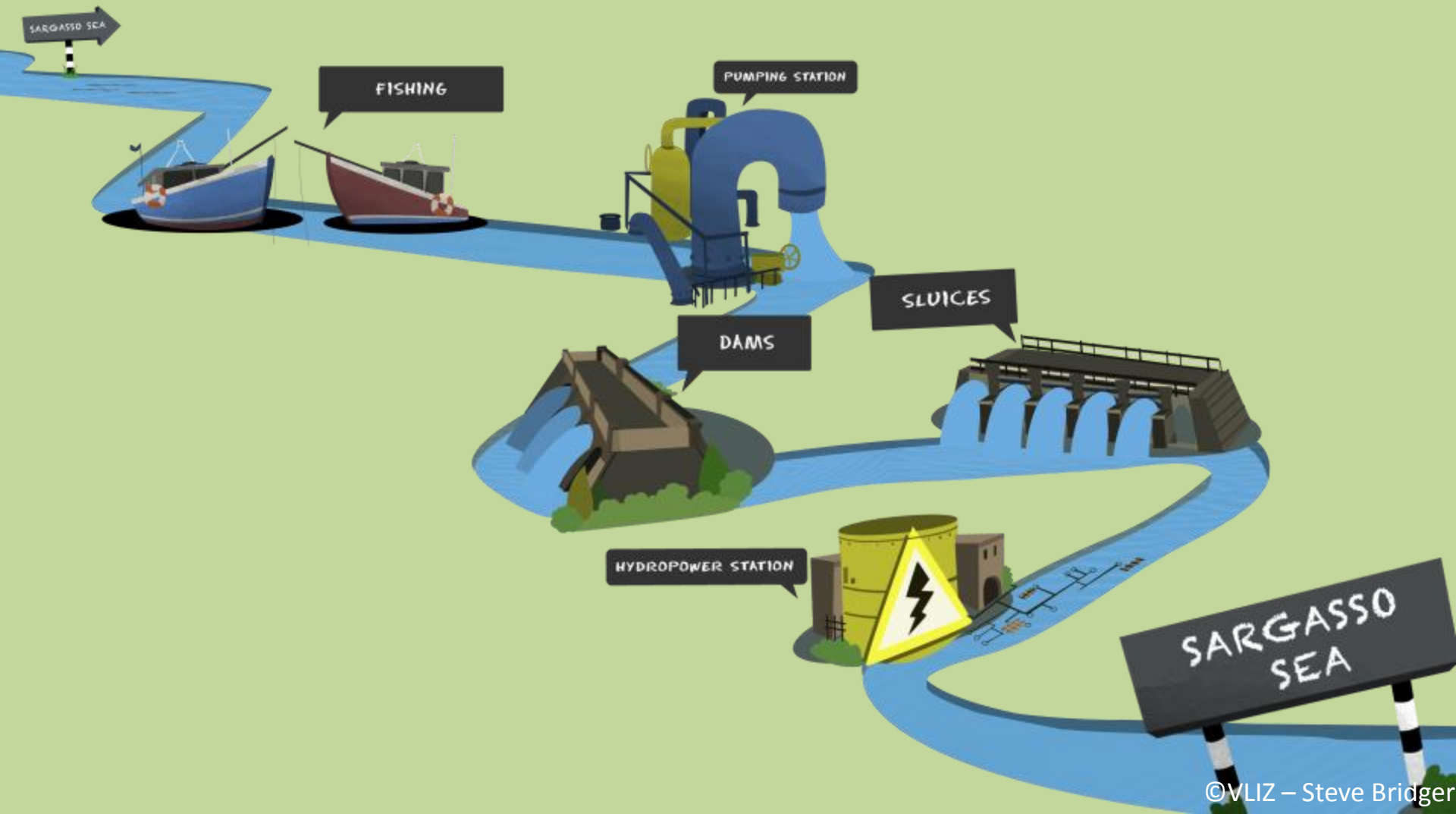
Pieterjan Verhelst

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# Imagine, you're an eel...



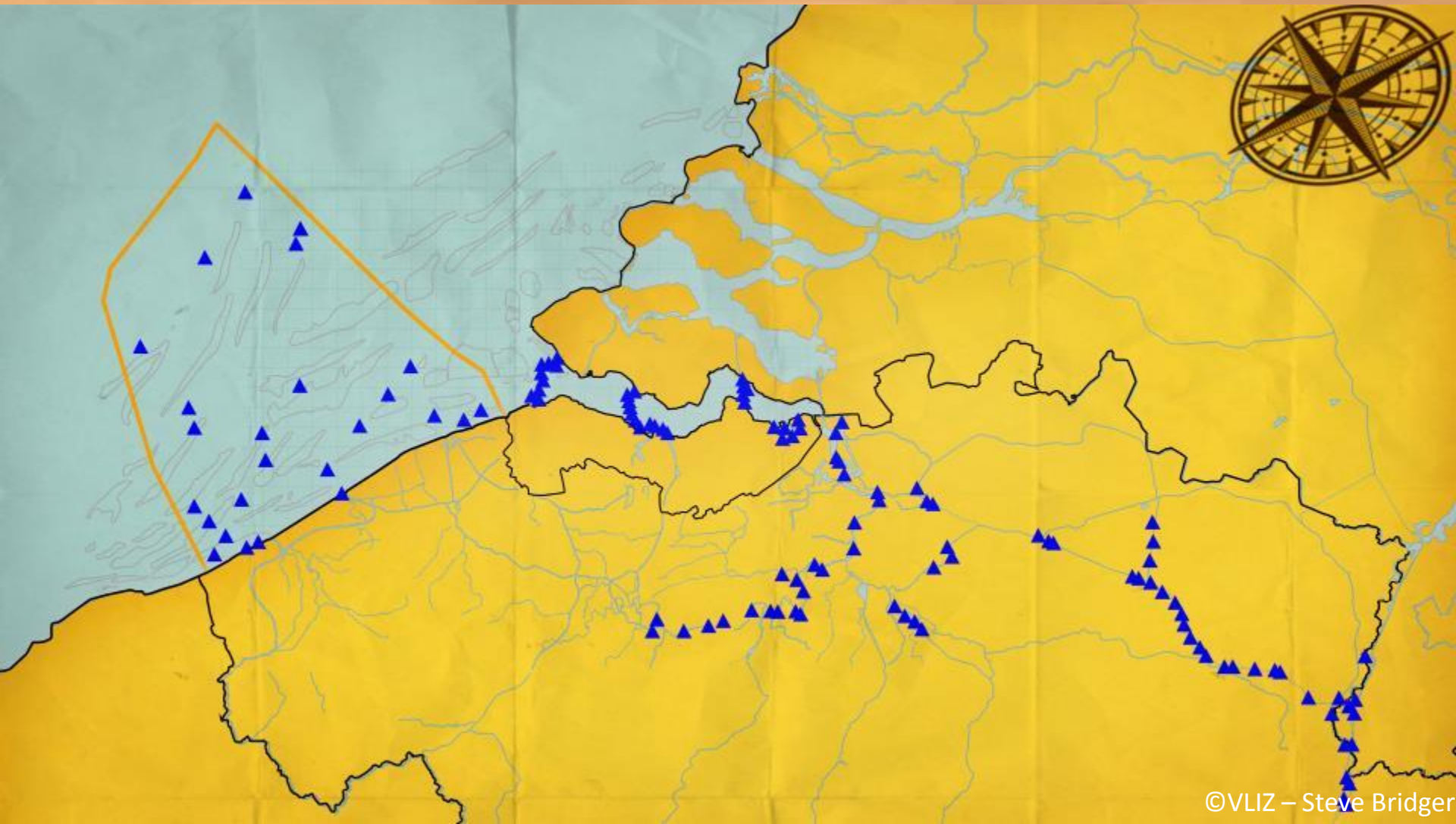
# Imagine, you're an eel...



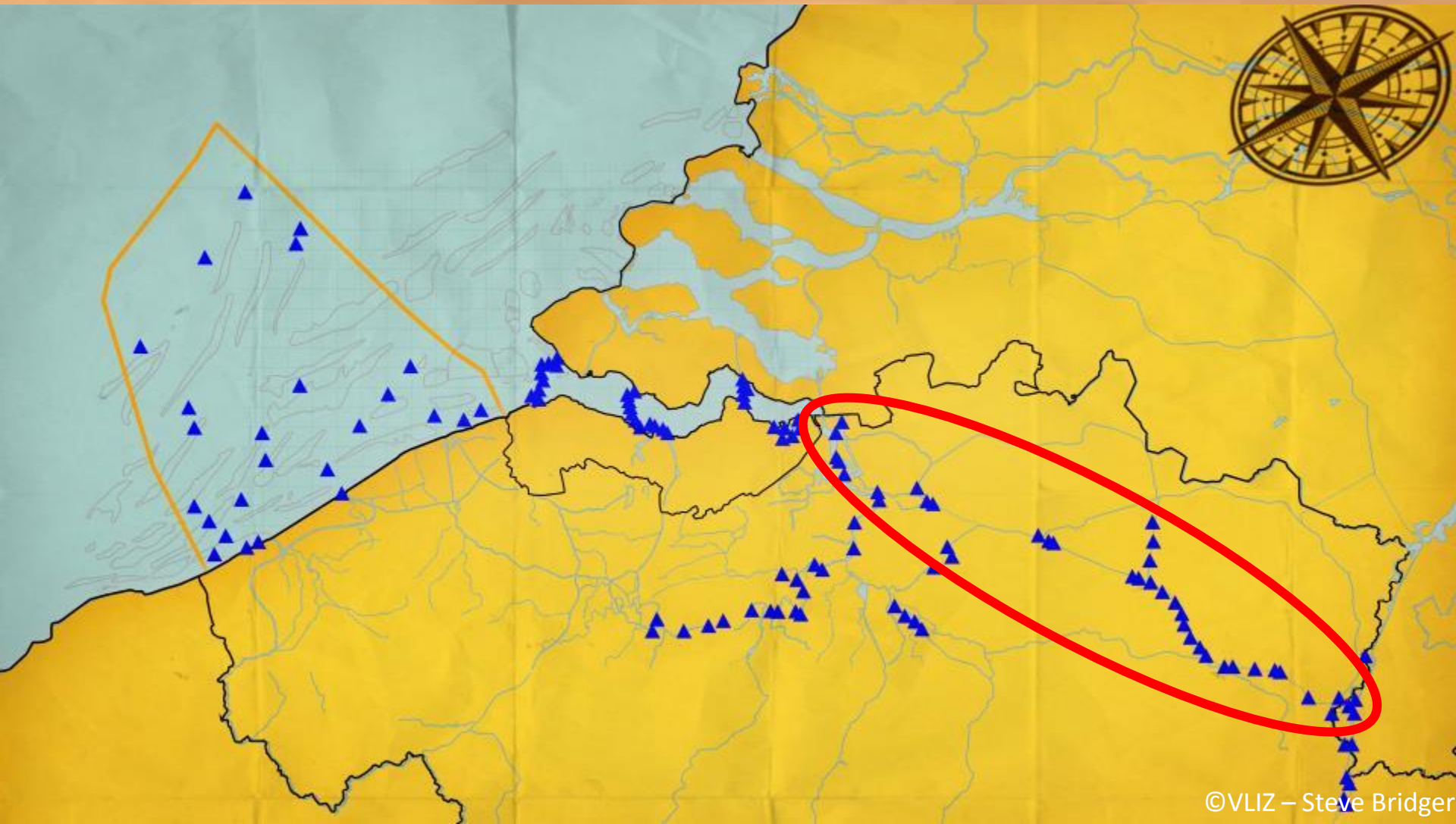
# Objectives

- **Are eels able to emigrate out of the system?**
- **Are migration speeds different according to**
  - **Behaviour classes?**
  - **Canal sections?**
- **When do the eels start to emigrate?**

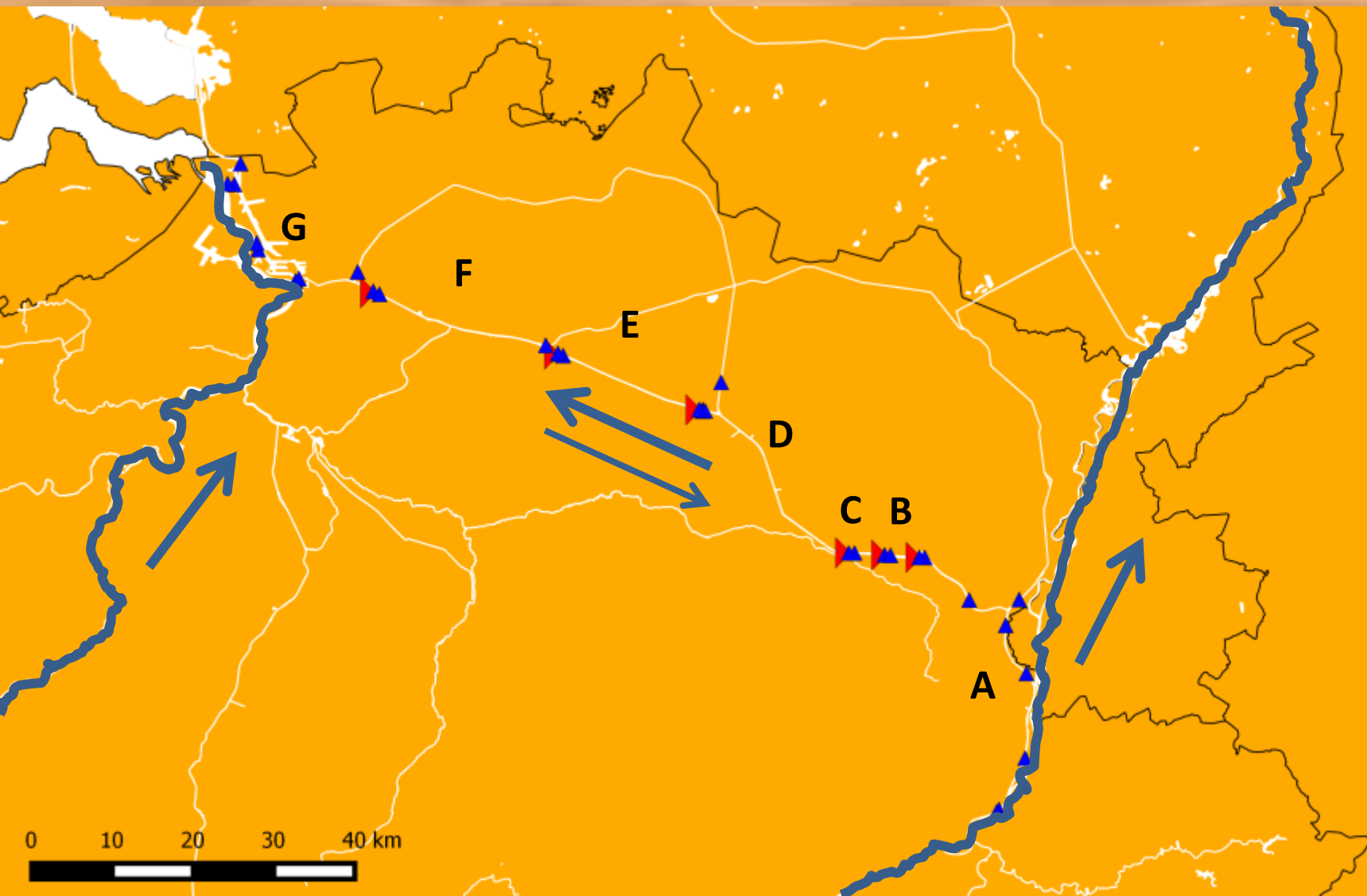
# Study area



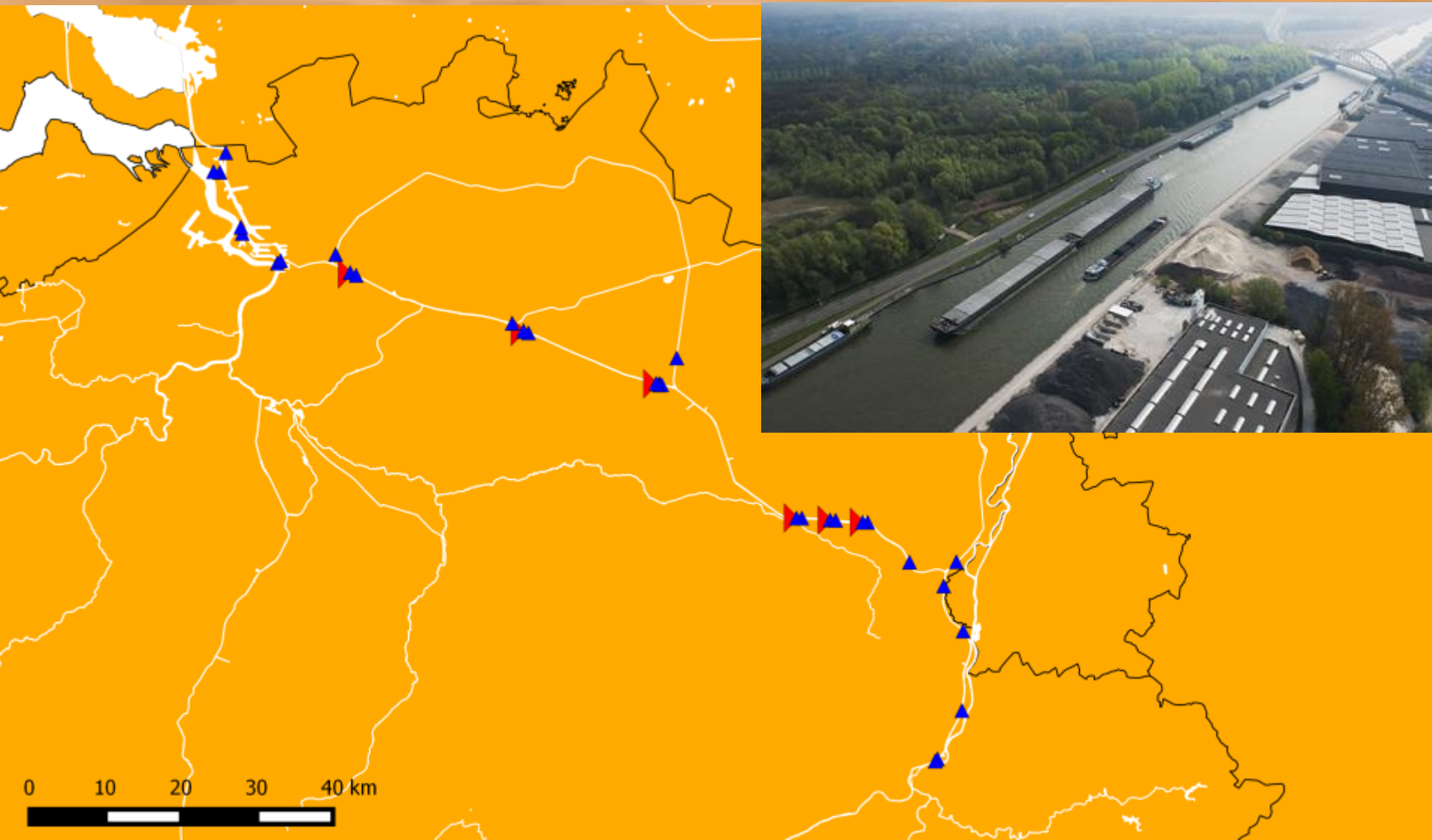
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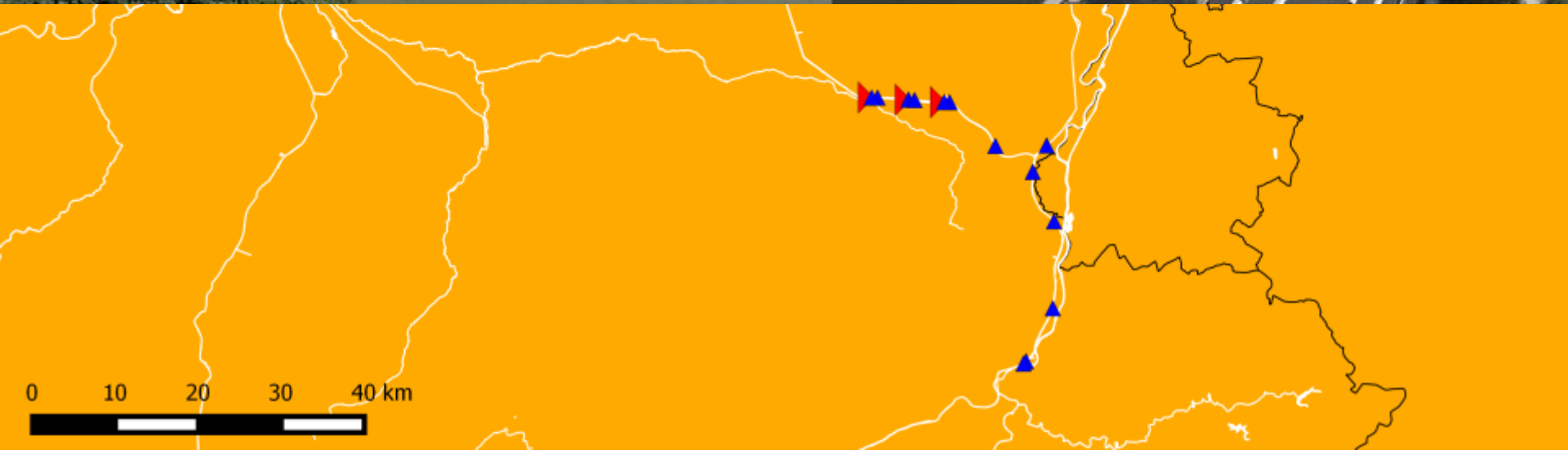


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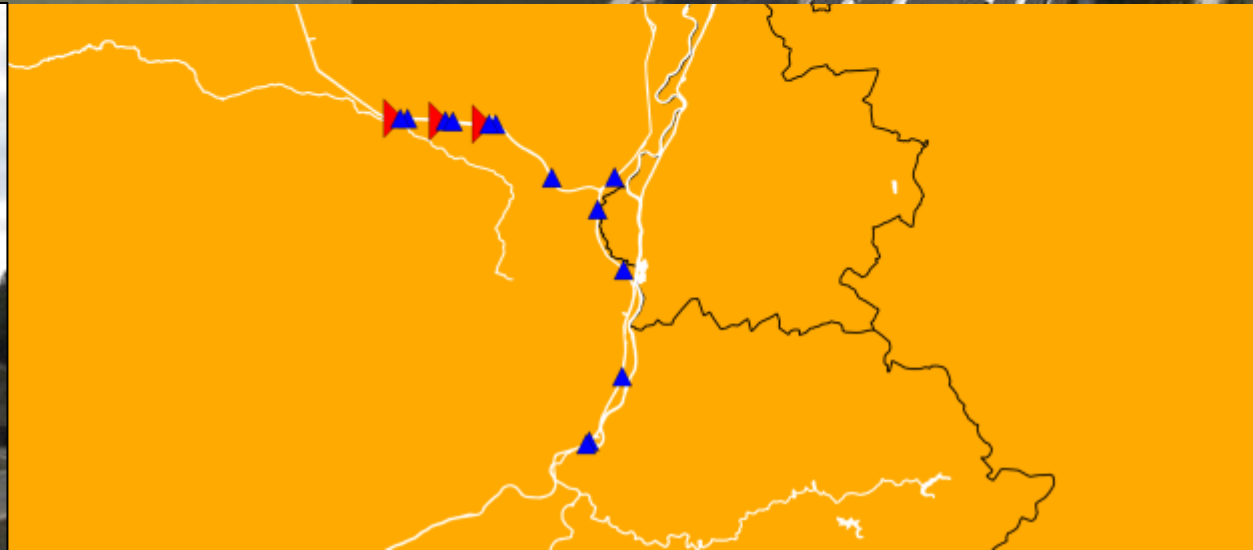




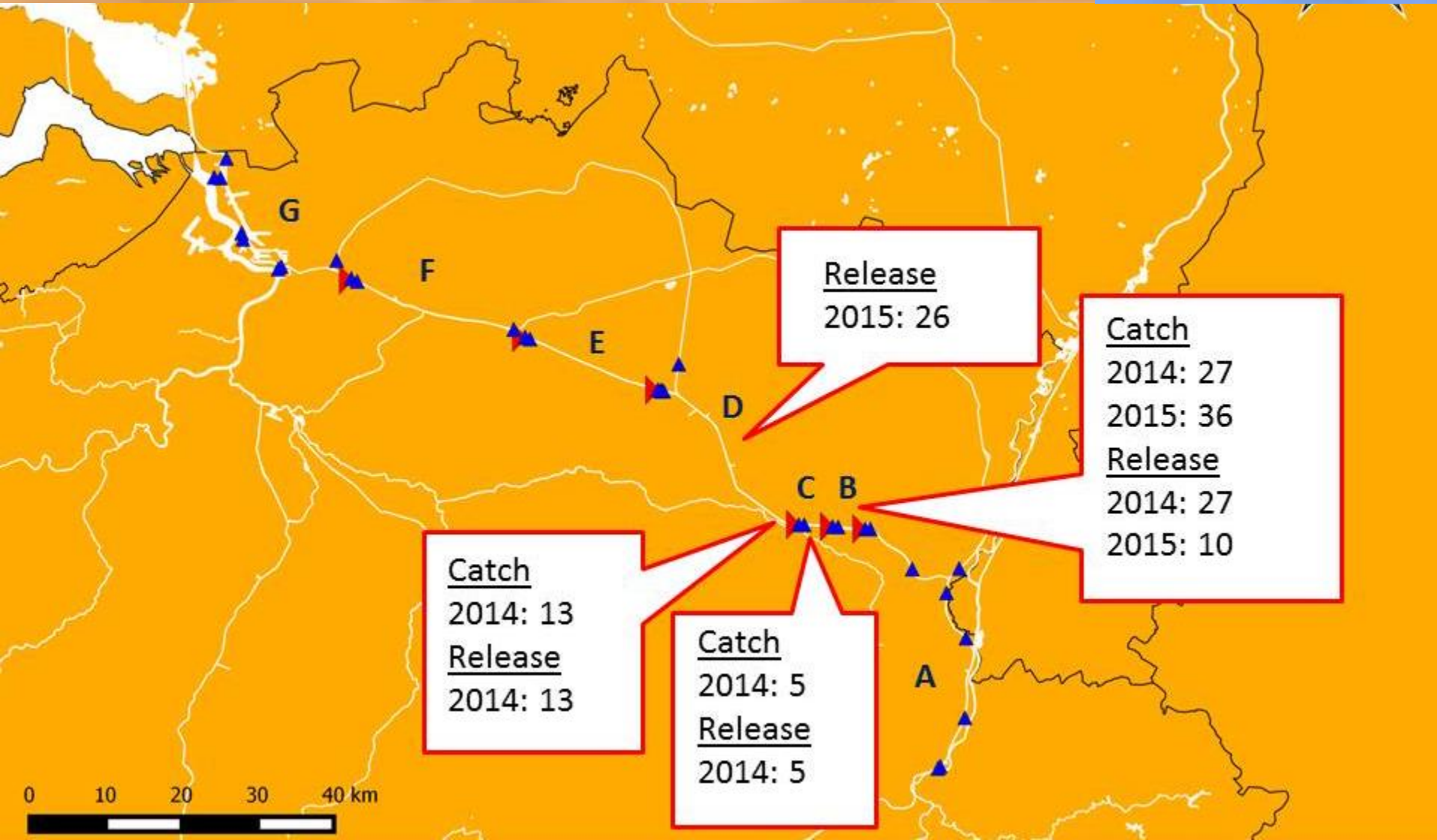
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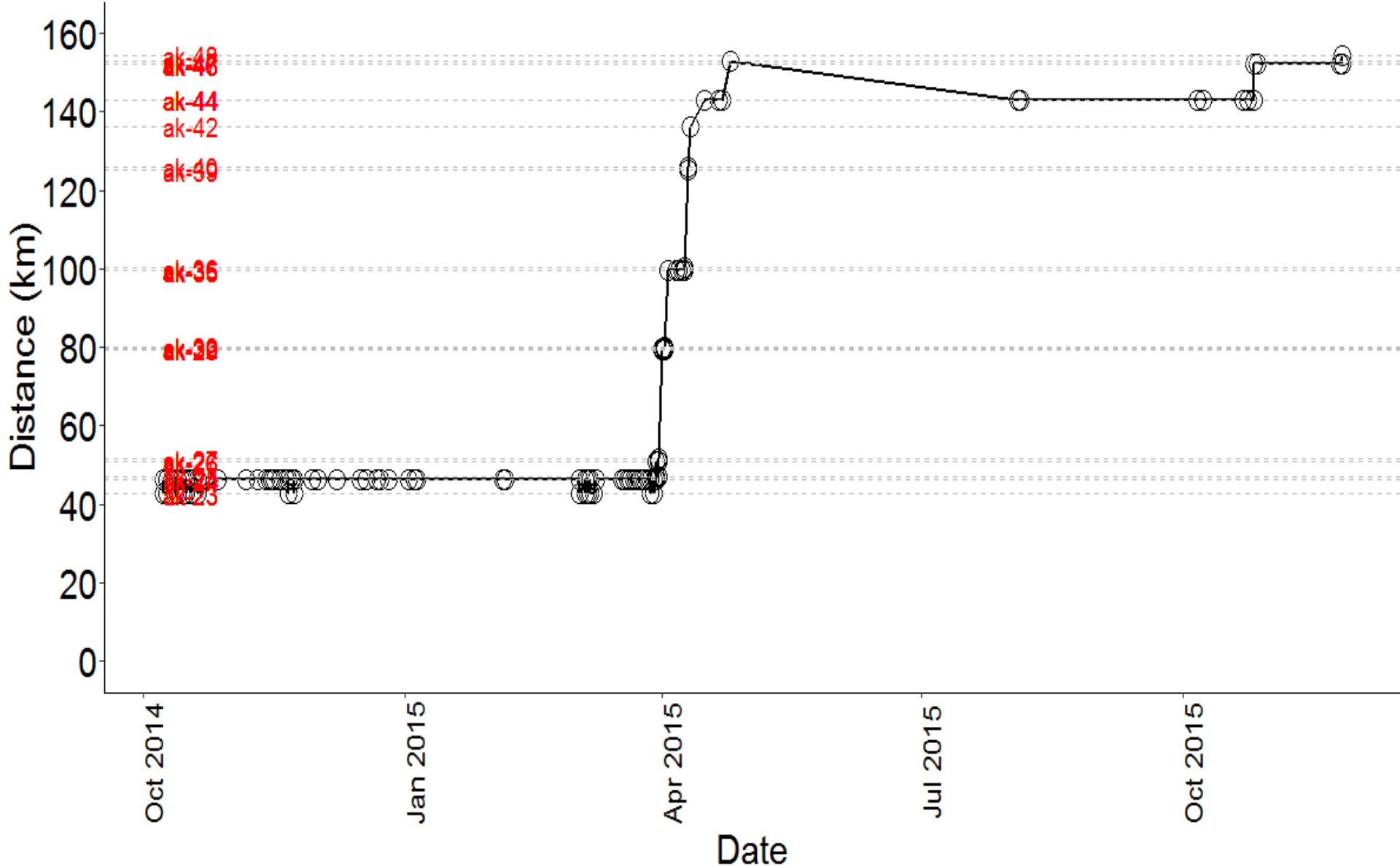


# Tagging



# What is migration?

A69-1601-26451



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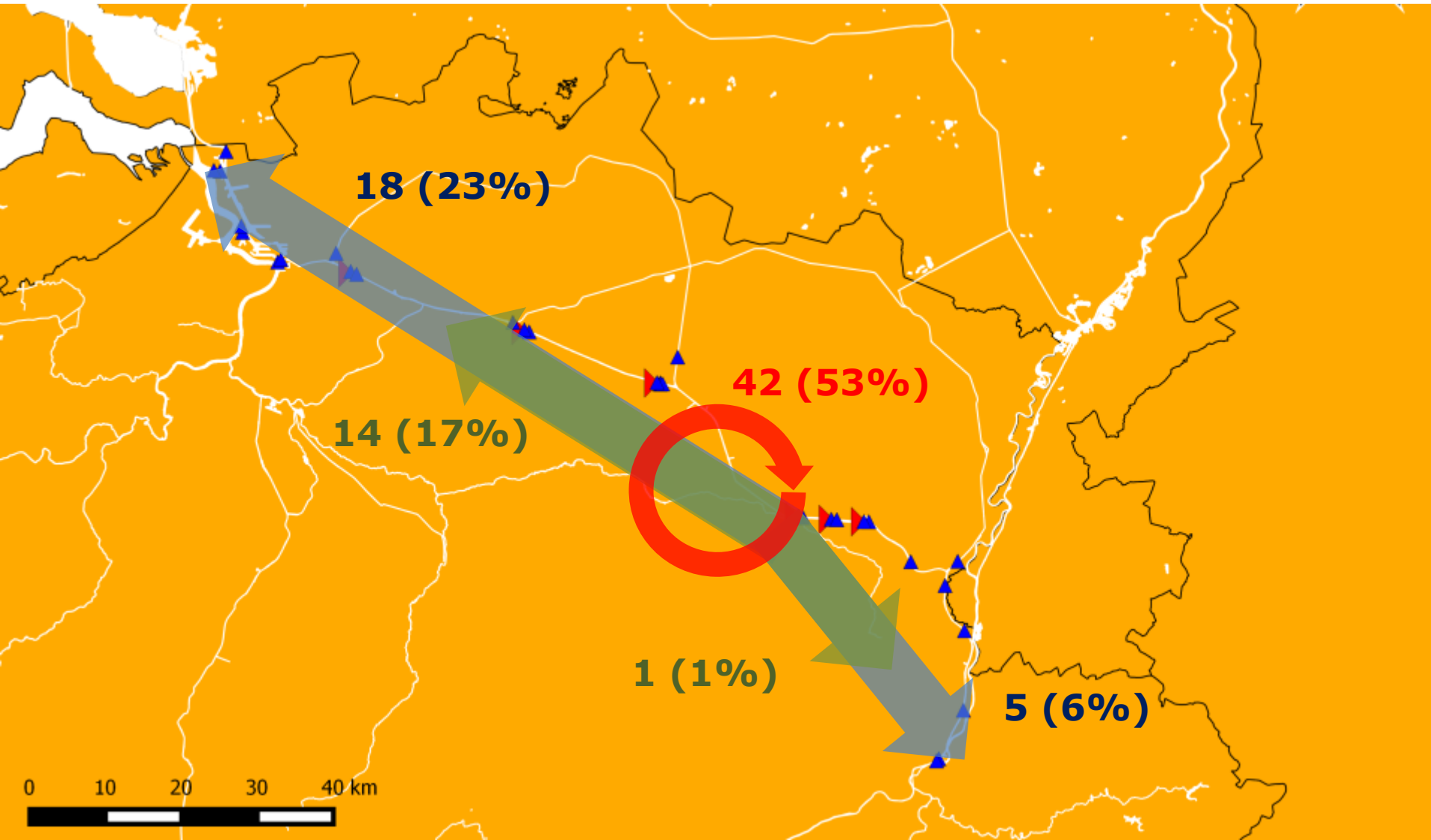
TAGGING RESEARCH



# Are eels able to emigrate out of the system?



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# Are migration speeds different according to behaviour classes?

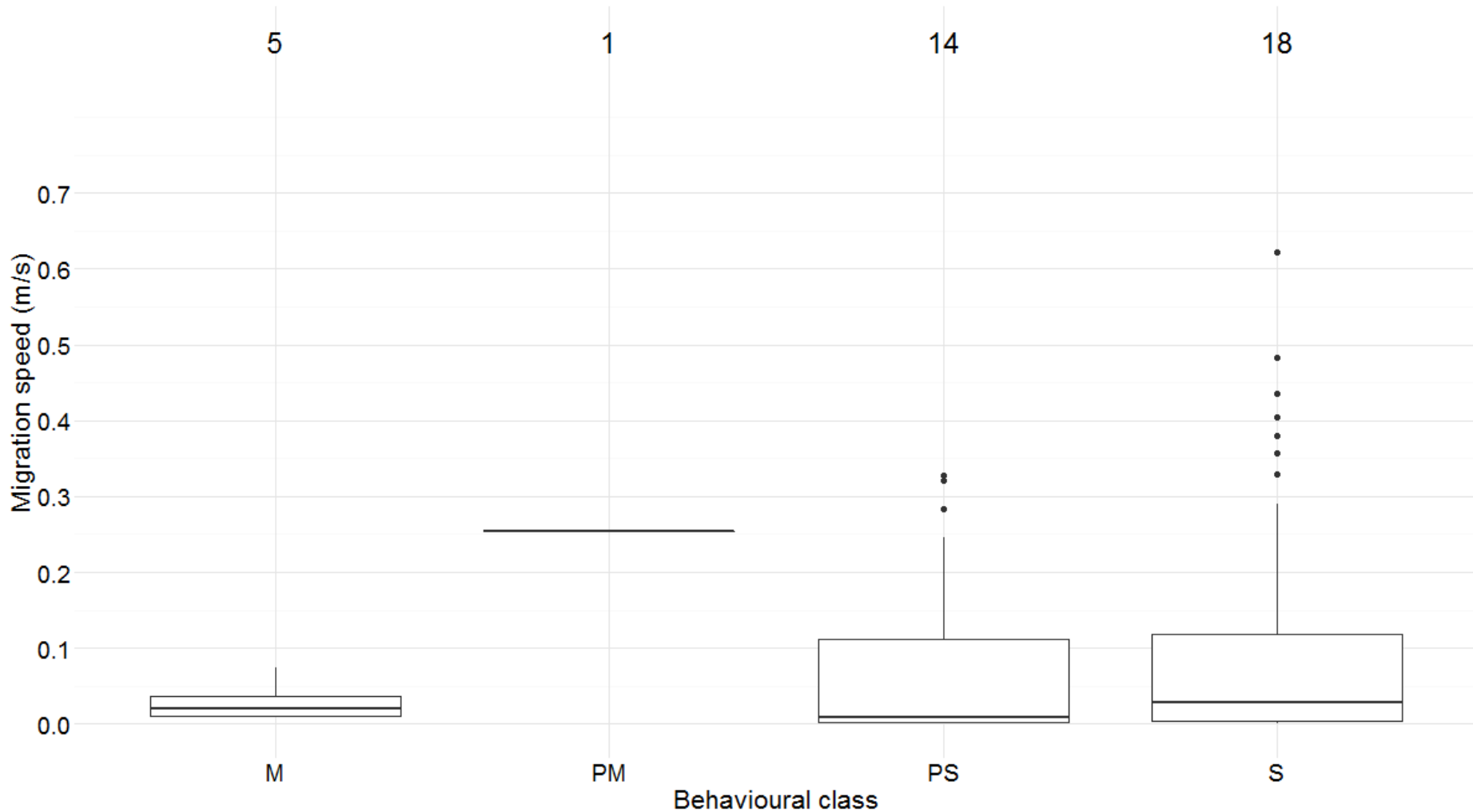
et Nieuwsblad

KBC





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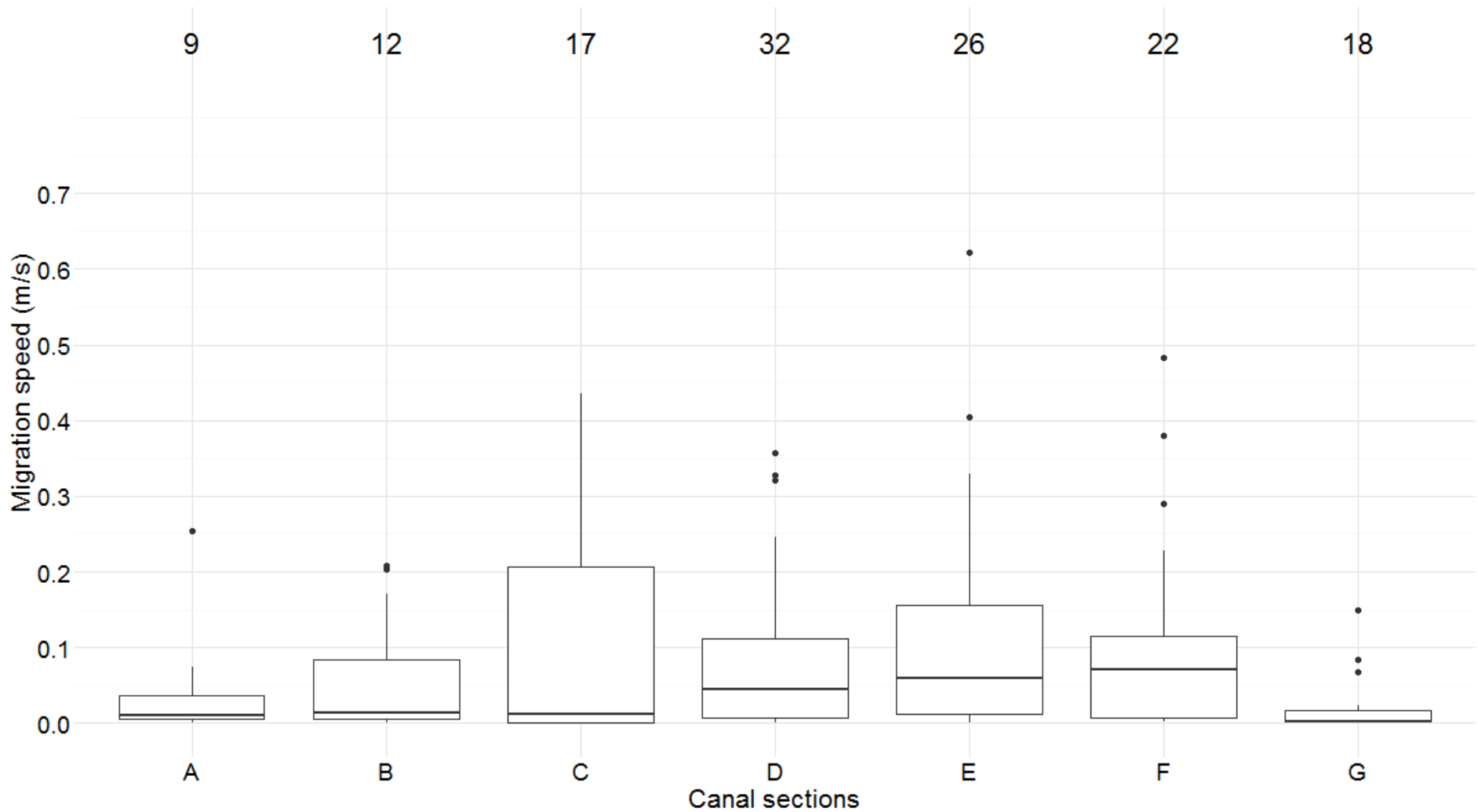


KW-test,  $\chi^2 (3, N = 38) = 4.4954, p = 0.213$

**Are migration speeds different according to canal sections?**

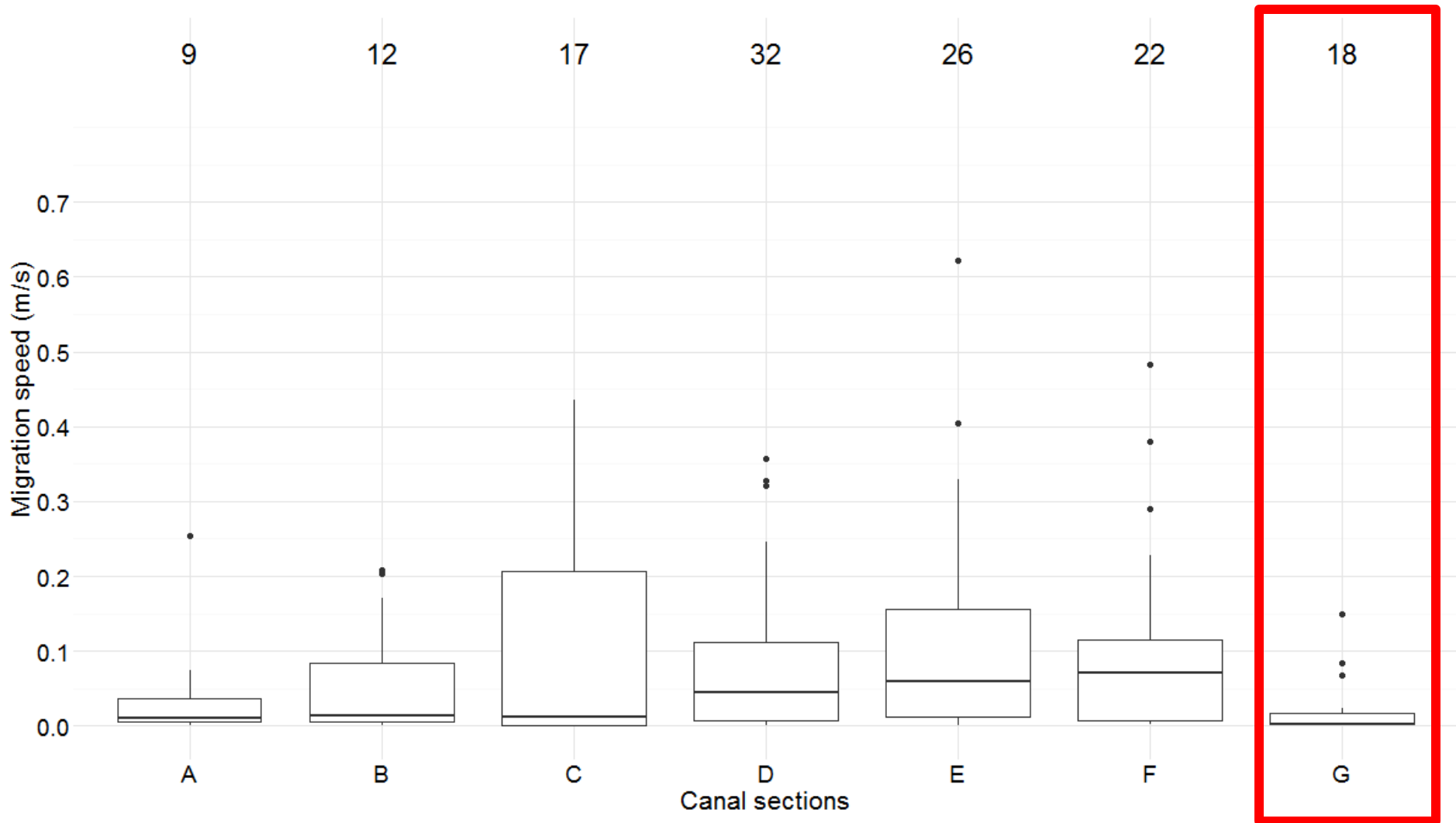


# Are migration speeds different according to canal sections?



KW-test,  $\chi^2(6, N = 136) = 14.411, p = 0.025$

# Are migration speeds different according to canal sections?



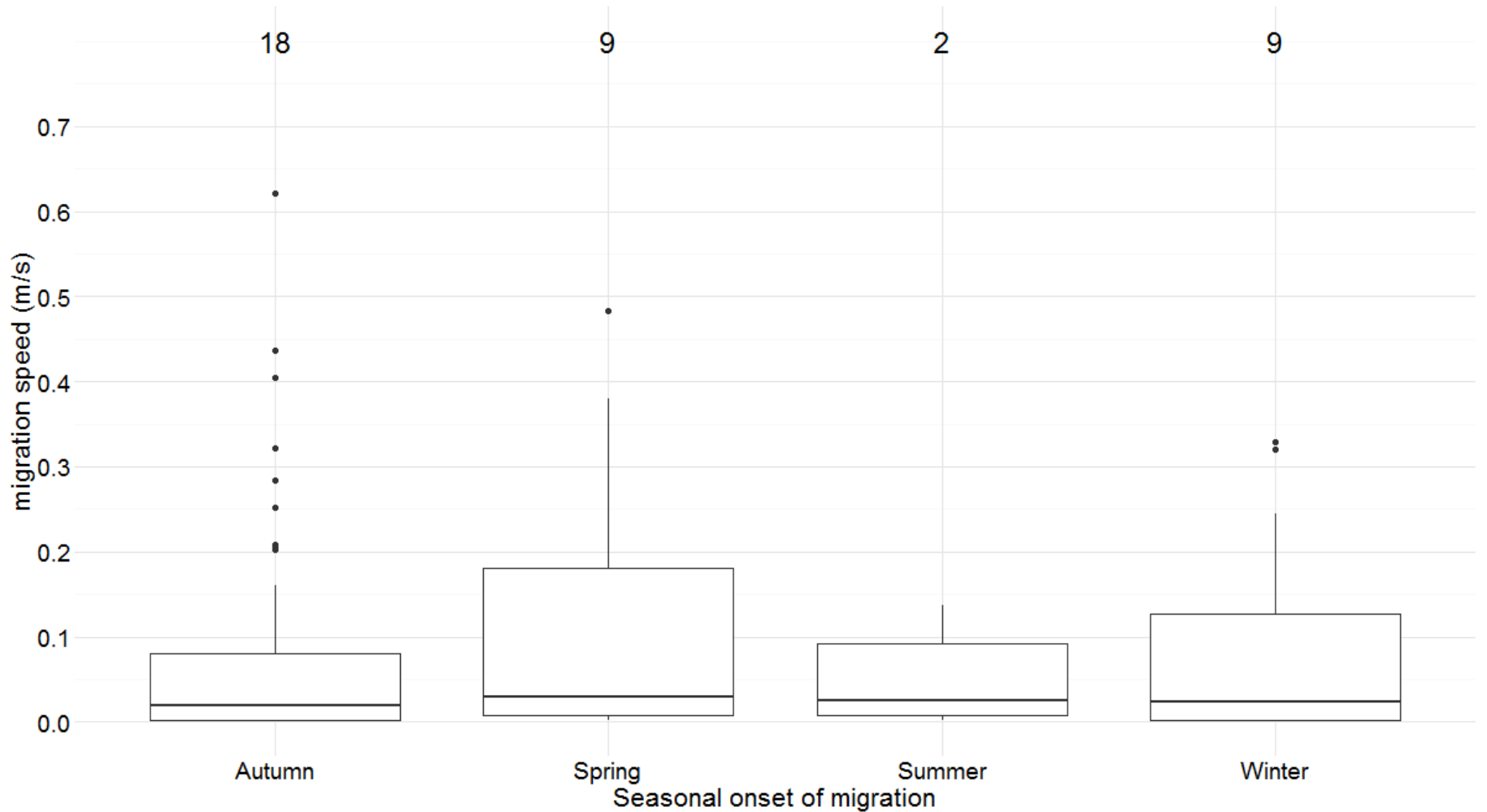
KW-test,  $\chi^2(6, N = 136) = 14.411, p = 0.025$

# When do eels start to emigrate?

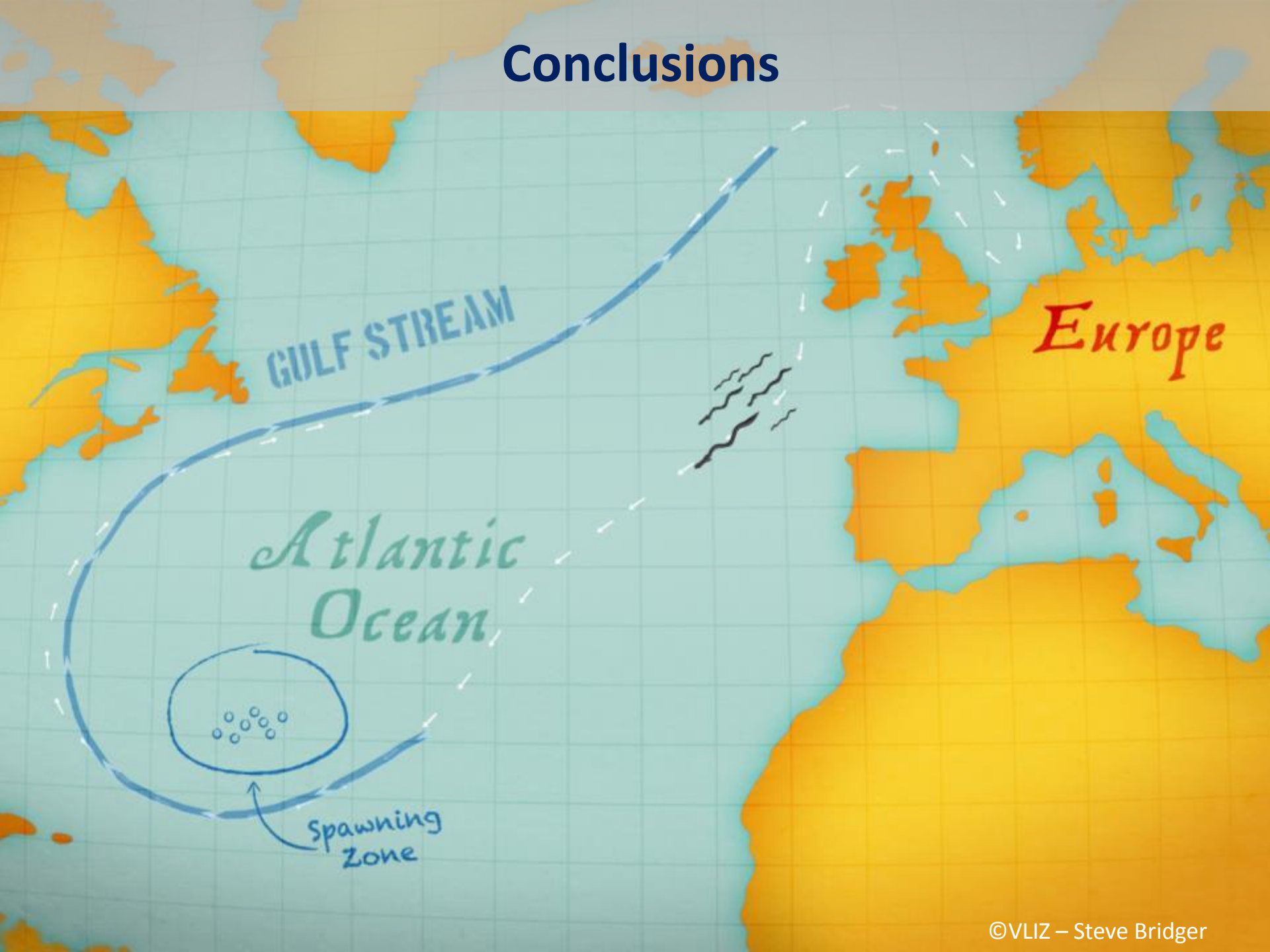


# When do eels start to migrate?

**All year round!**

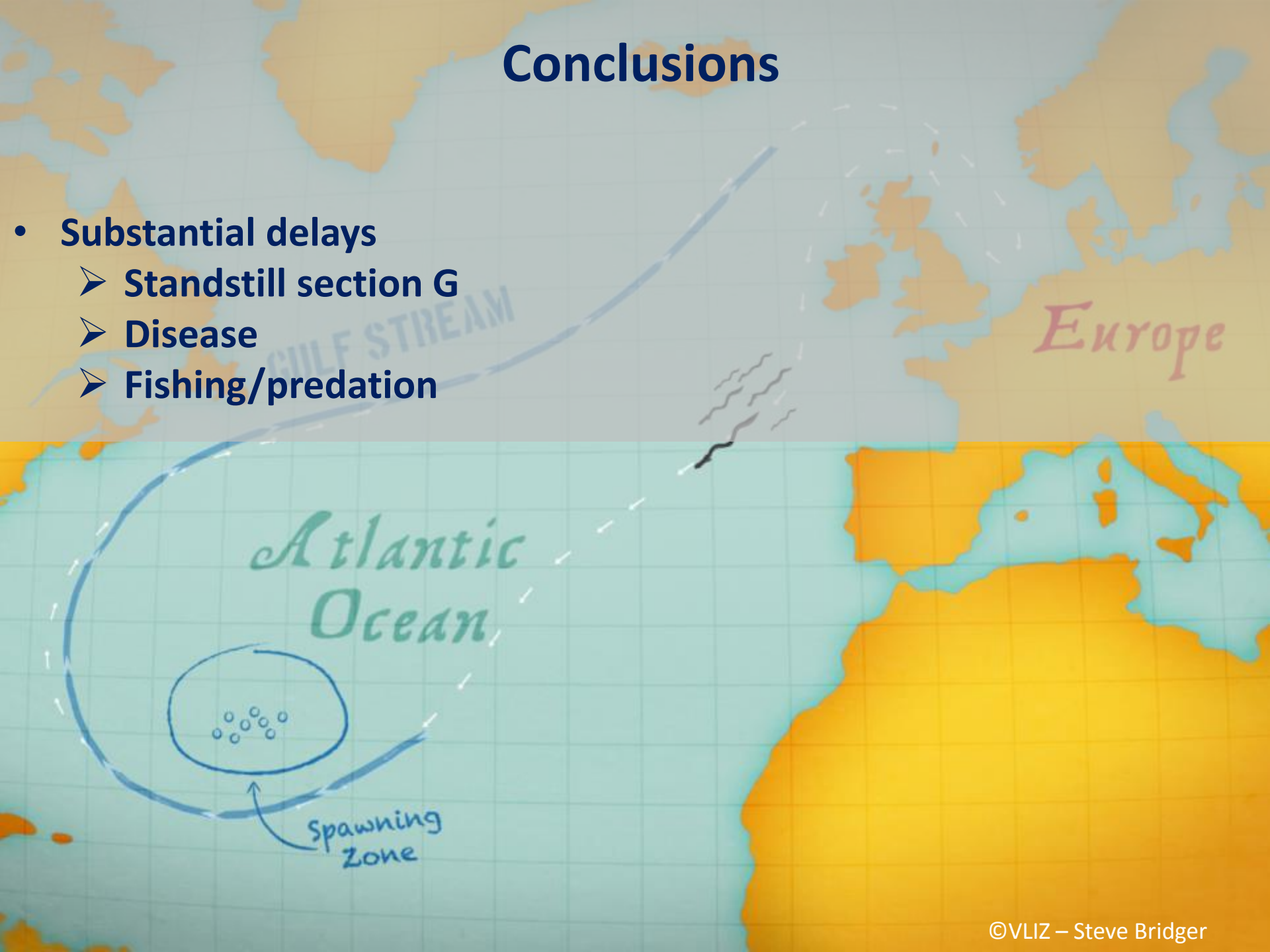


# Conclusions



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  - Standstill section G
  - Disease
  - Fishing/predation





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  - 20% of Flanders imported glass eels, were stocked in the AC



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- Substantial delays
  - Standstill section G
  - Disease
  - Fishing/predation
- Implications glass eel stocking
  - 20% of Flanders imported glass eels, were stocked in the AC
- New questions!
  - Successful migrants: can they correct for these delays?
  - Reduced fitness?

Spawning  
Zone



**Thank you!**



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