

**Is the abundance of invasive  
cladoceran *Cercopagis pengoi*  
controlled by blooms of moon jelly  
*Aurelia aurita* in northern Baltic  
Sea?**

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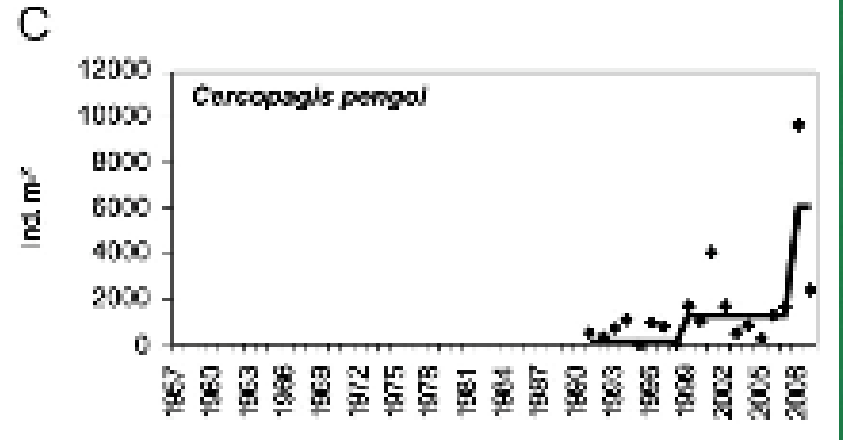
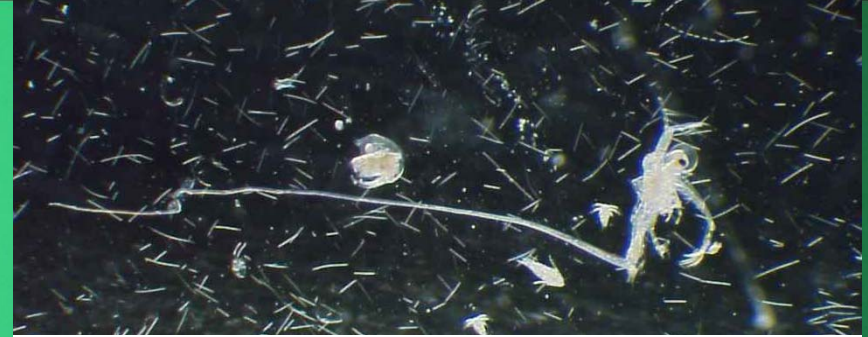
**University of Tartu**



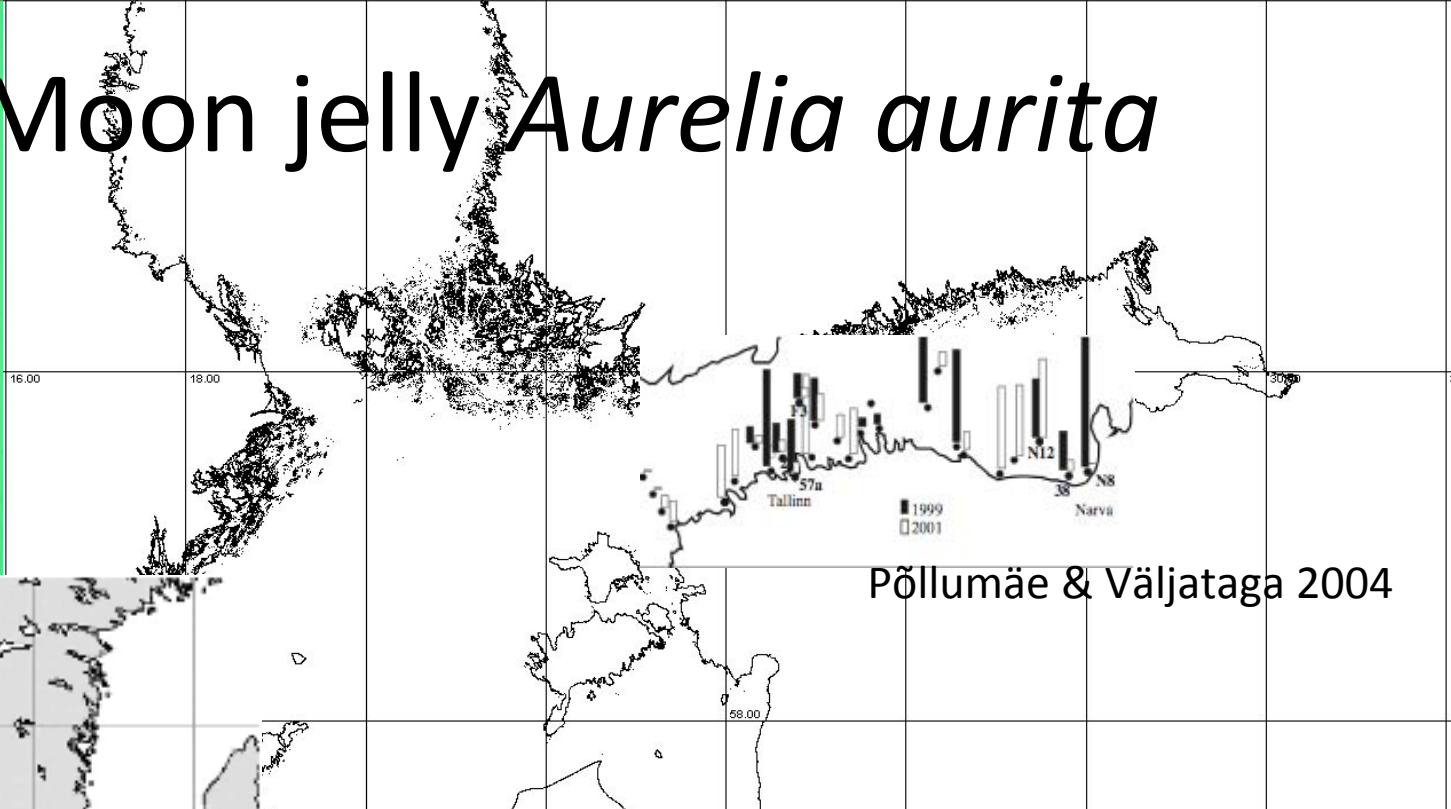
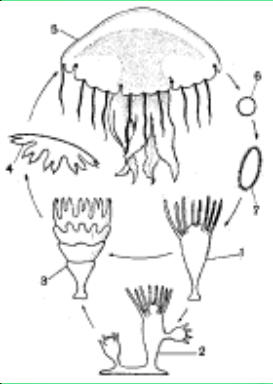
# Introduction

## Cladoceran *Cercopagis pengoi*

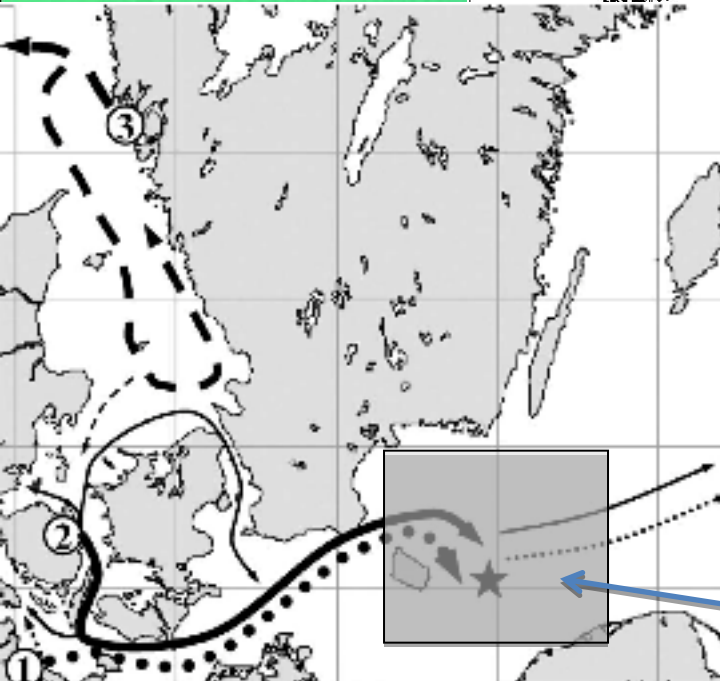
- Invasive species from Ponto-Caspian region
- First recorded in Baltic Sea 1992
- Wide salinity tolerance
- Abundance still increasing in the Baltic



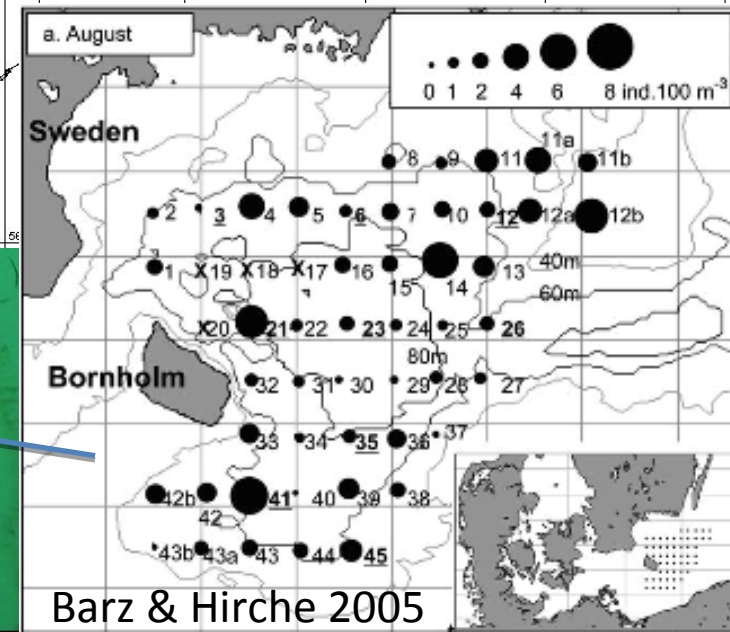
# Moon jelly *Aurelia aurita*



Pöllumäe & Väljataga 2004



Barz et al. 2006



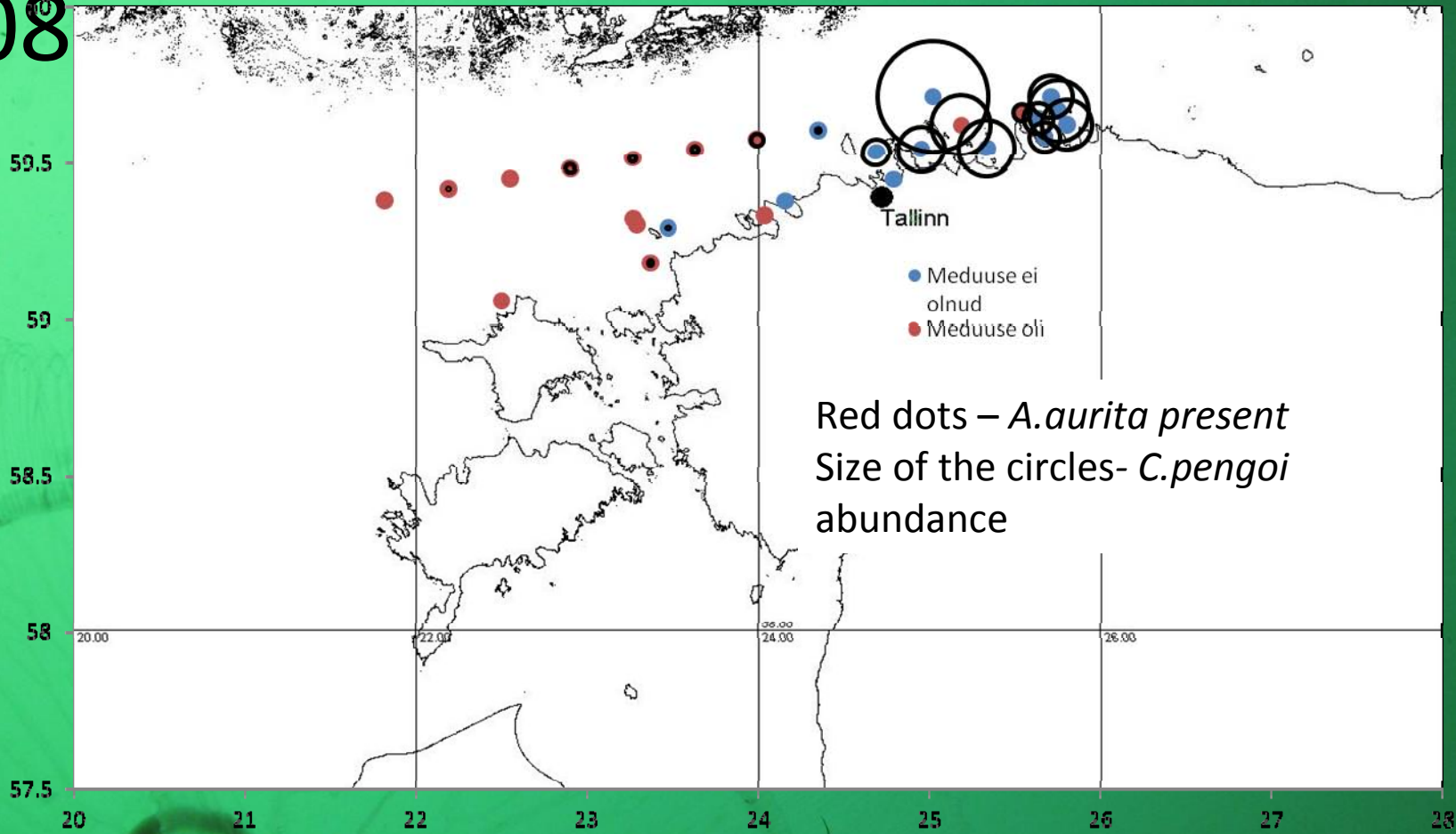
Barz & Hirche 2005

# Methods

- Three cruises in August (2008, 2010, 2011)
- Zooplankton samples collected with vertical tows using WP2 net
- Presence/absence data for jellyfishes (max 250 ind. m<sup>3</sup>)
- All individuals of *C.pengoi* counted in all samples (max 1800 ind. m<sup>3</sup>)

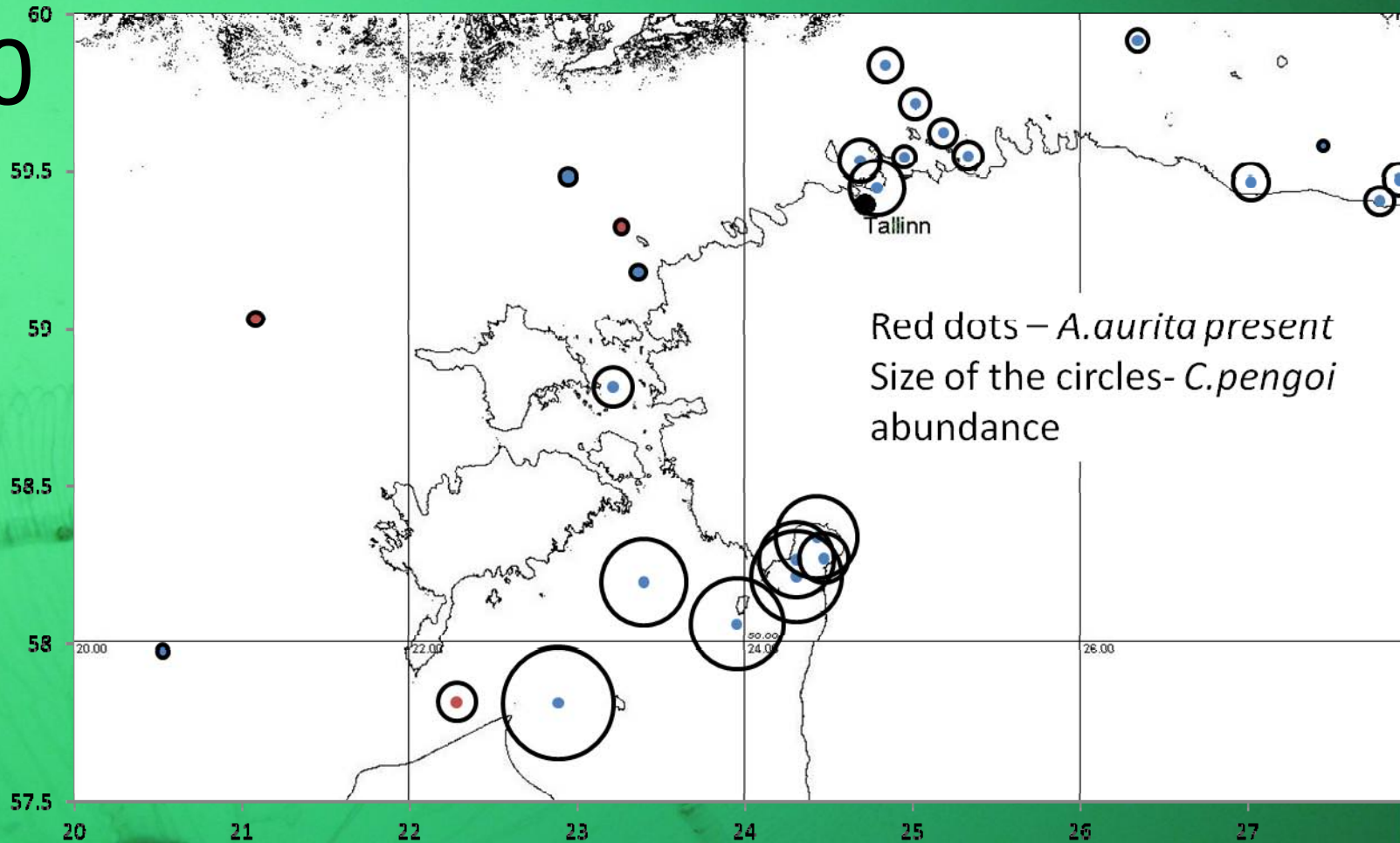


2008



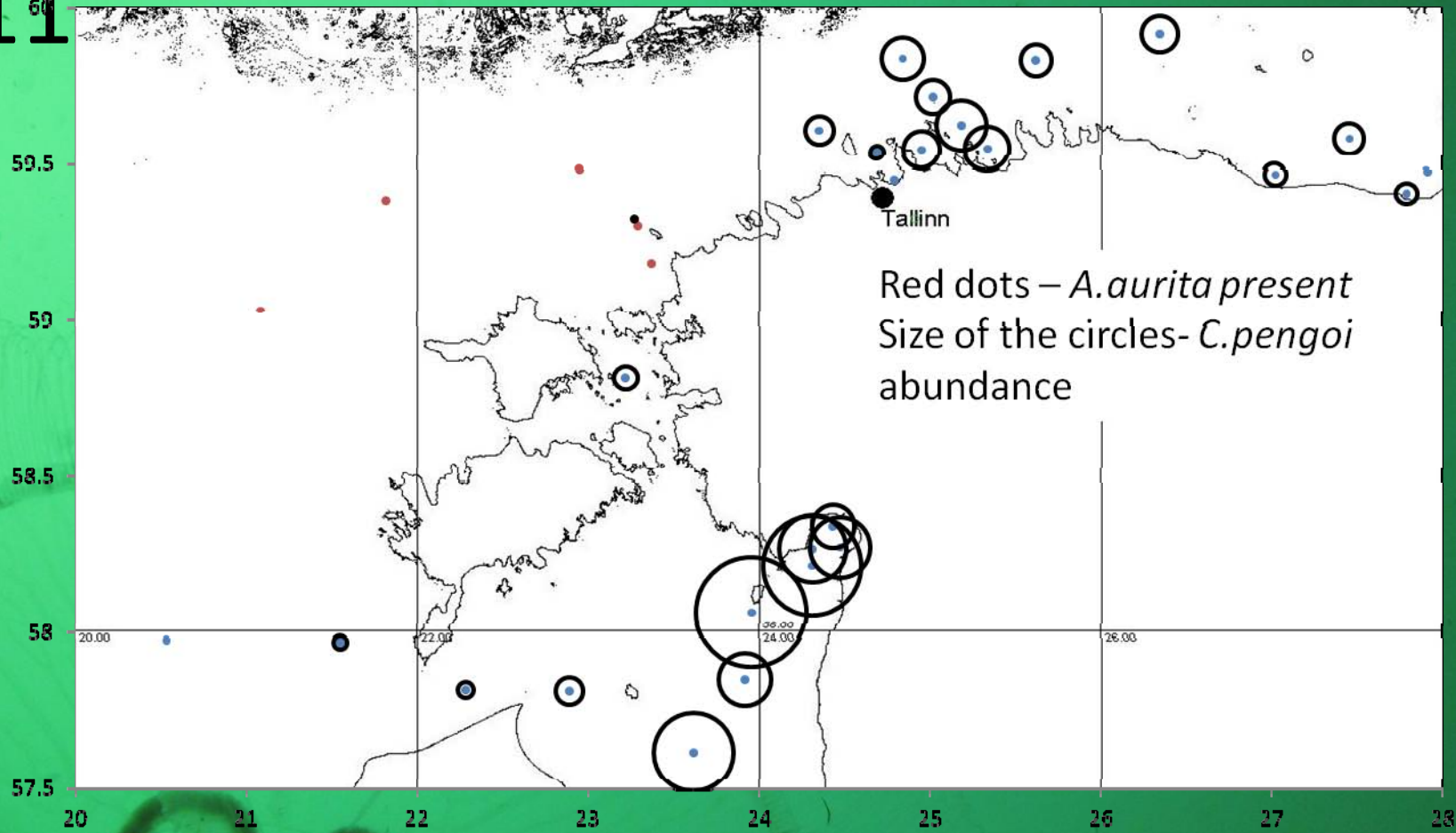
Mean abundances of *C. pengoi*: 0.6 and 8 ind. m<sup>3</sup>  
Significant difference ( $p < 0.01$ ,  $t$ -test)

# 2010



Mean abundances of *C. pengoi*: 10 and 112 ind. m<sup>3</sup>  
Unsignificant

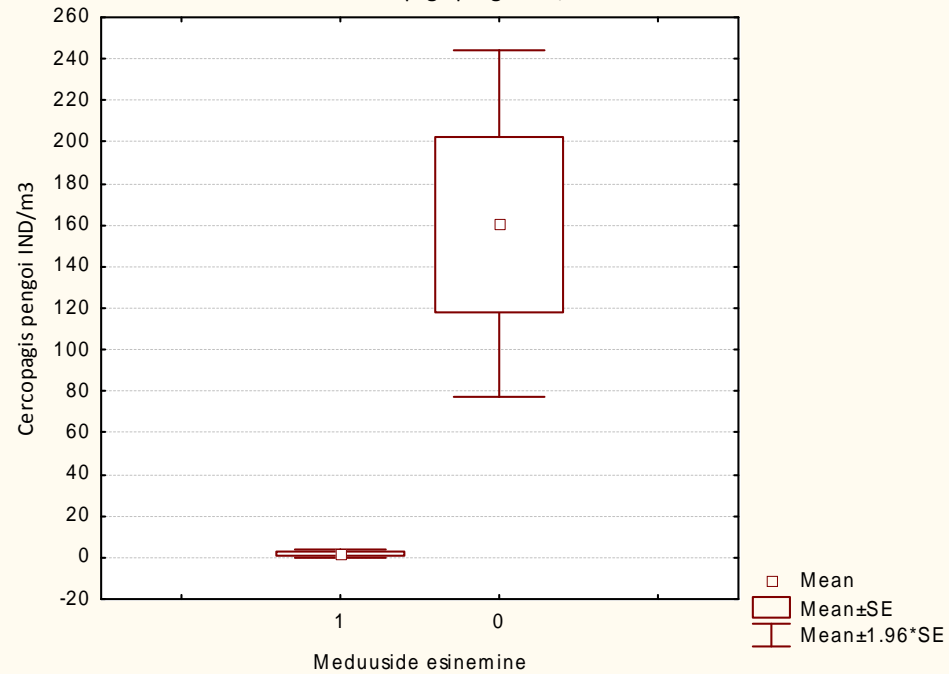
# 2011



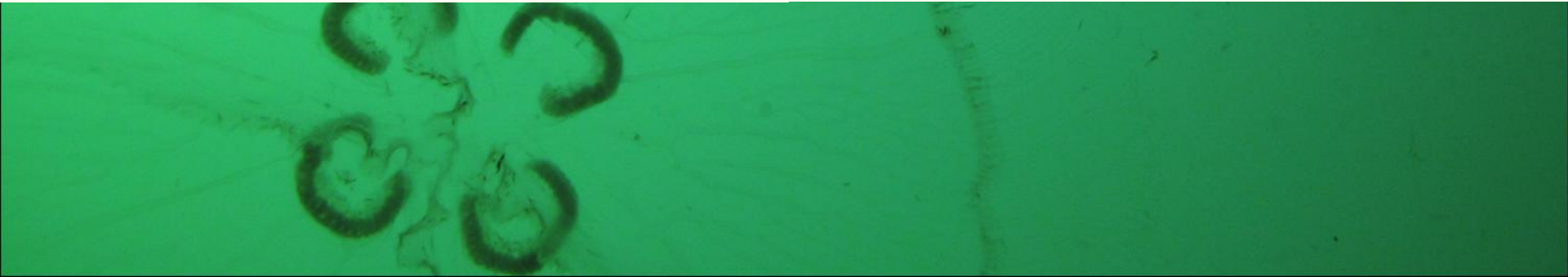
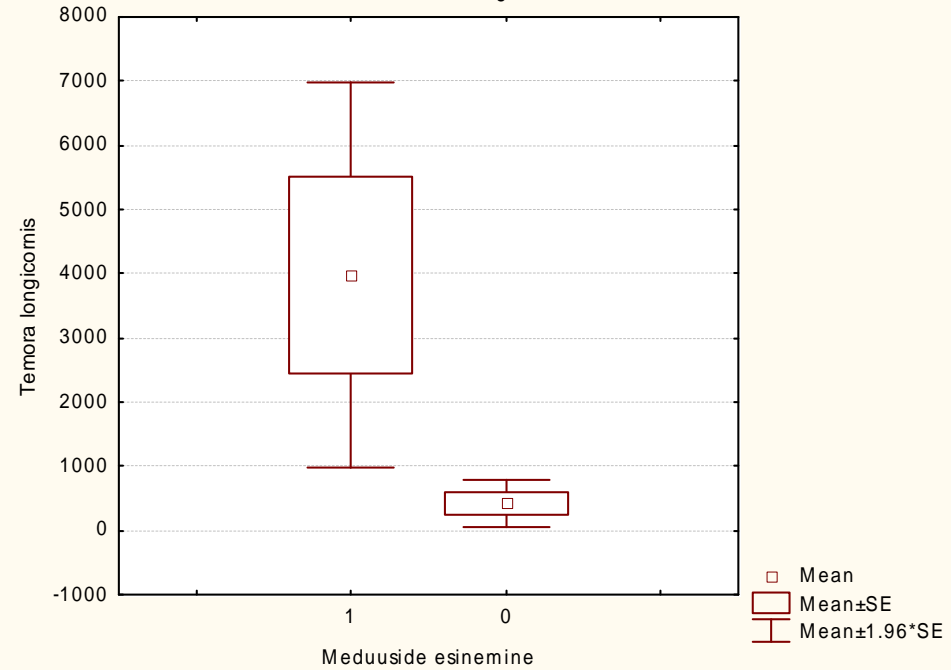
Mean abundances of *C. pengoi*: 0.2 and 279 ind. m<sup>3</sup>  
Unsignificant difference

# Three cruises together

Box & Whisker Plot: *Cercopagis pengoi* IND/m<sup>3</sup>



Box & Whisker Plot: *Temora longicornis*





# Why?

- The rake and the straw?
- Sample handling?

Answer: Gut analyses



Thank You!

