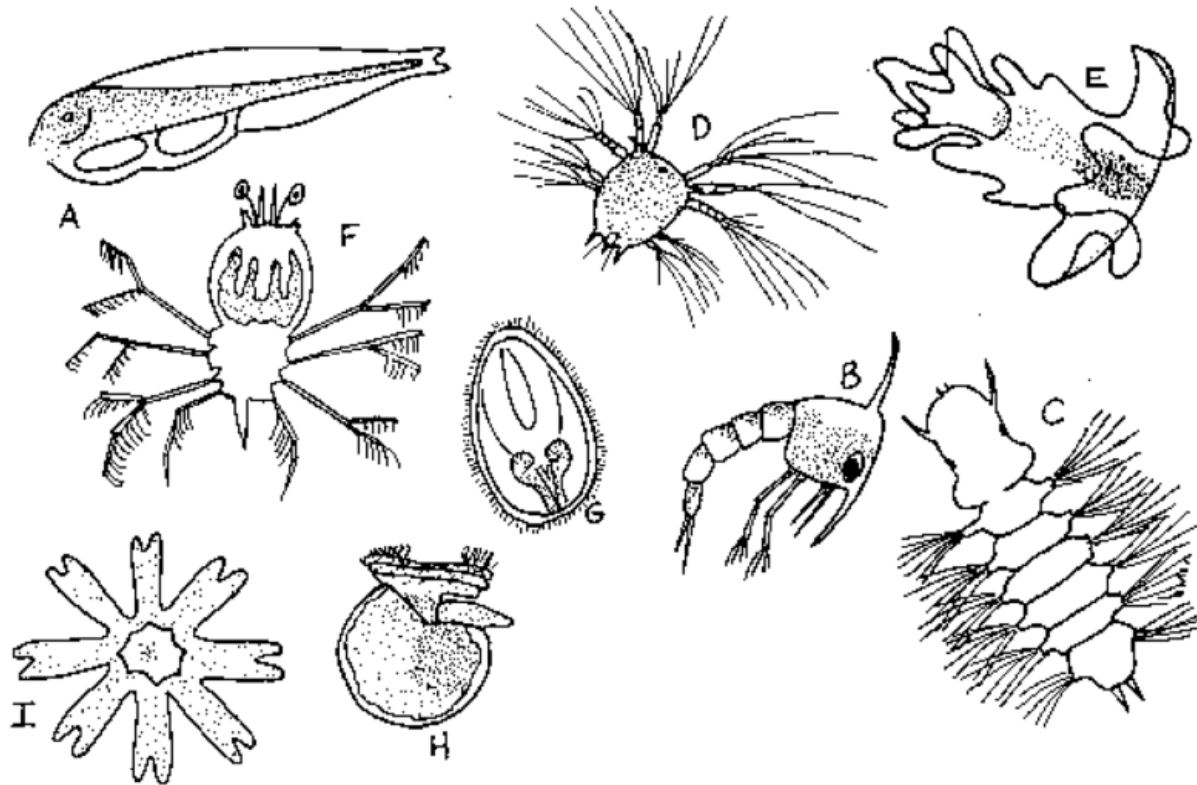


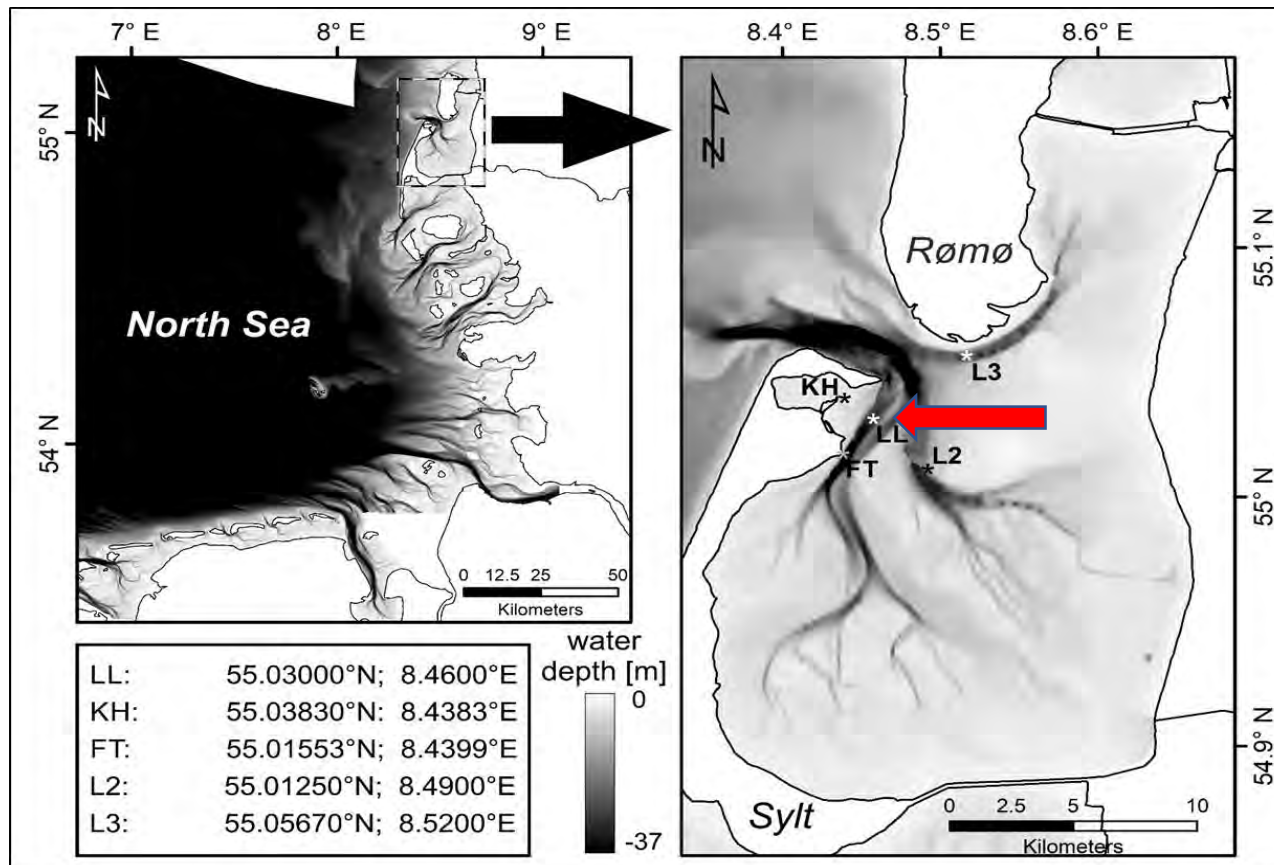
# SYLT ROADS Meroplankton Time Series since 1996

J. Rick, P. Kadel, C.-P. Günther & K.H. Wiltshire



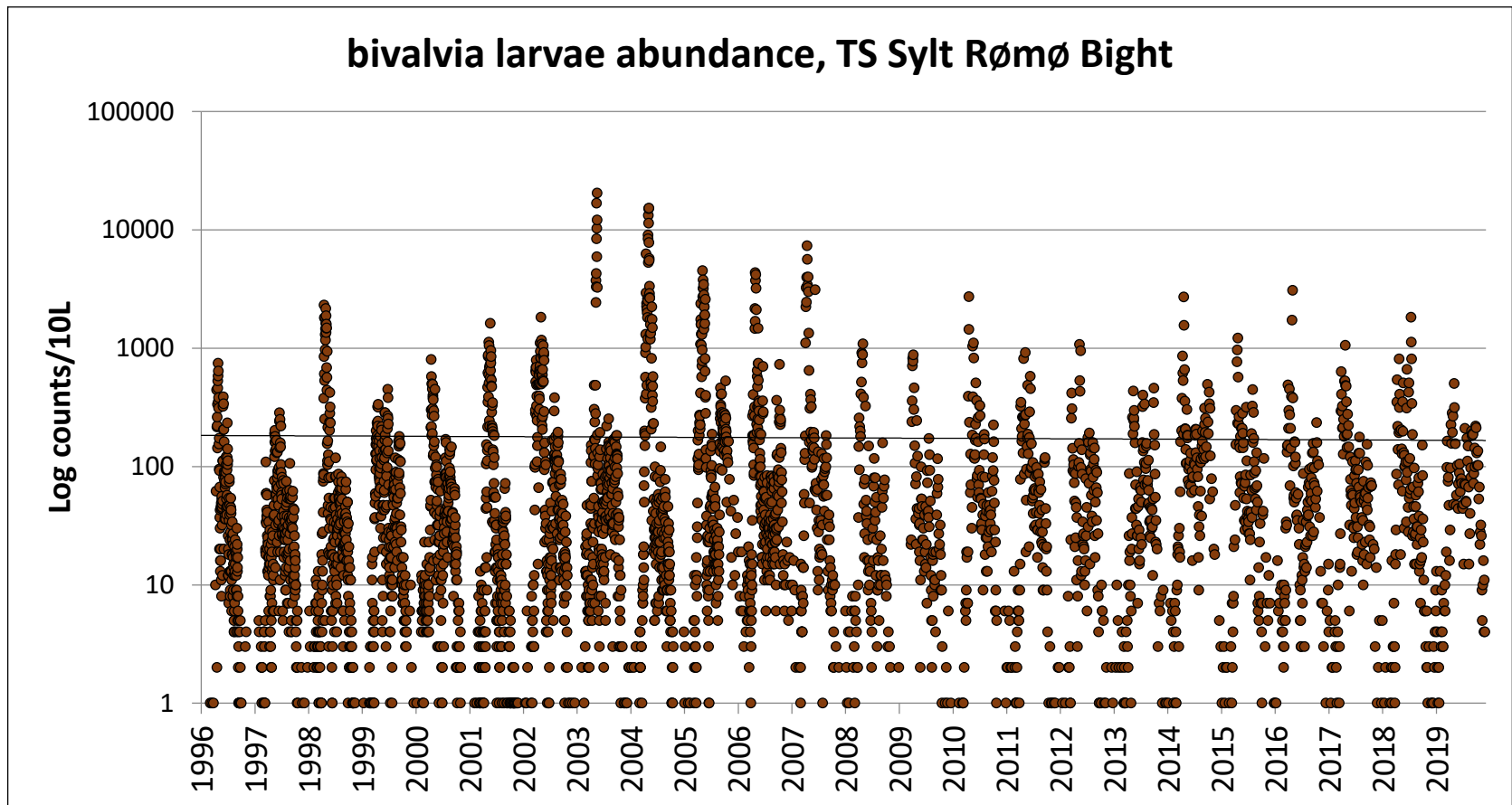
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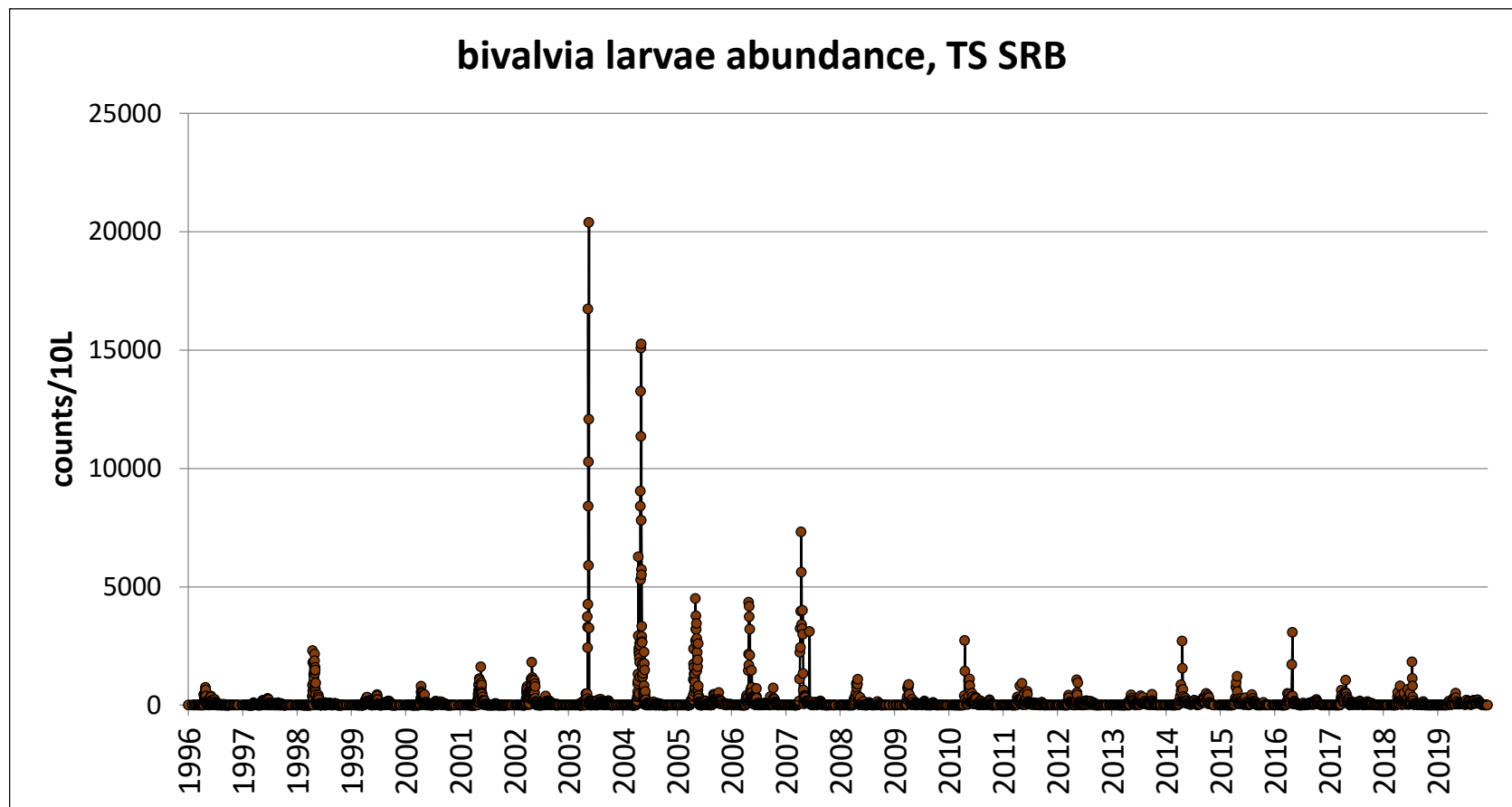
# Temperature and mussel spawning

- Based on the SYLT ROADS meroplankton time series
- Counting of meroplanktonic larvae 2-3 times a week
- >> 2500 samples – screened for > 25 groups  
(P. Kadel, C.-P. Günther)



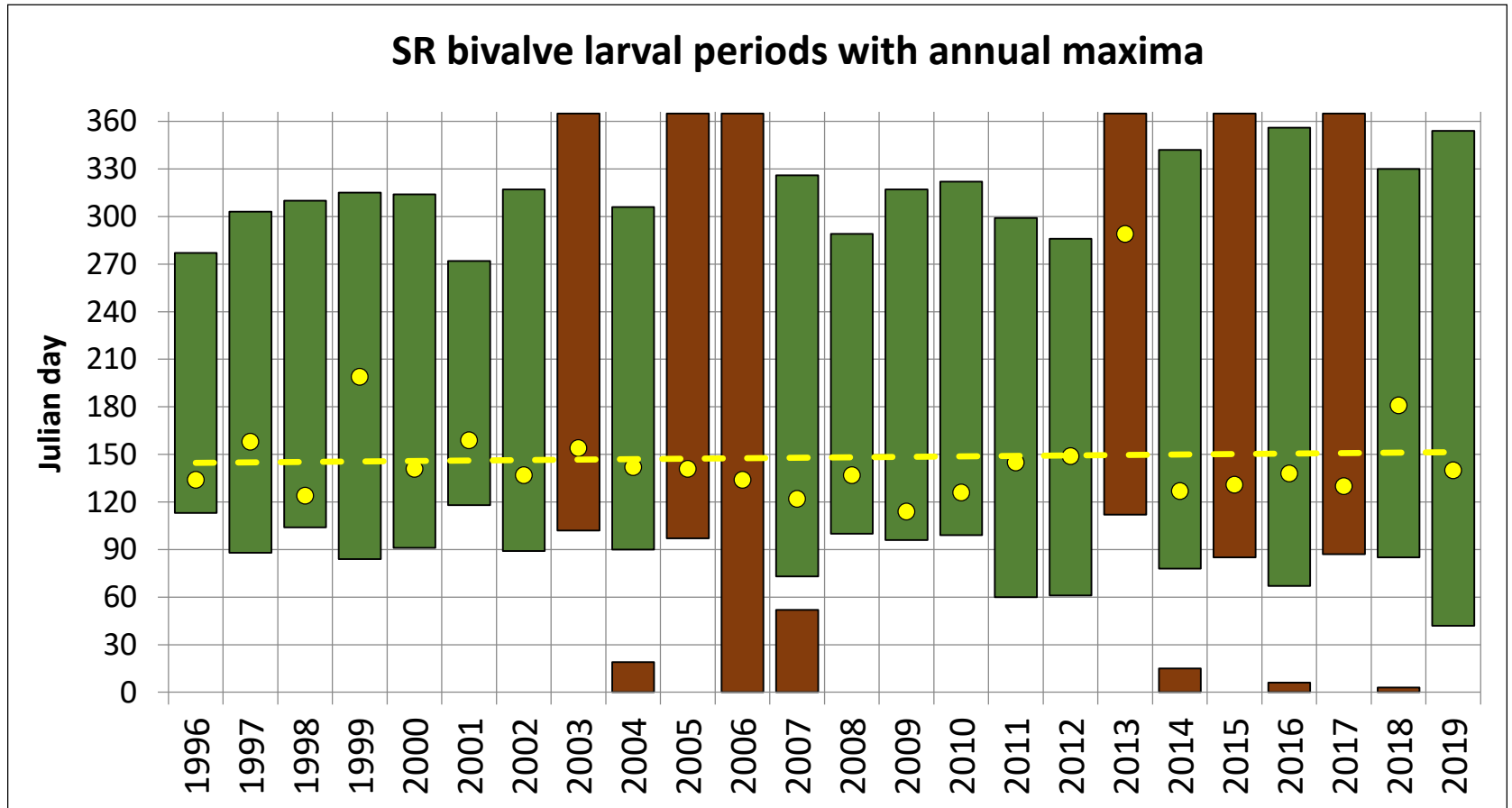
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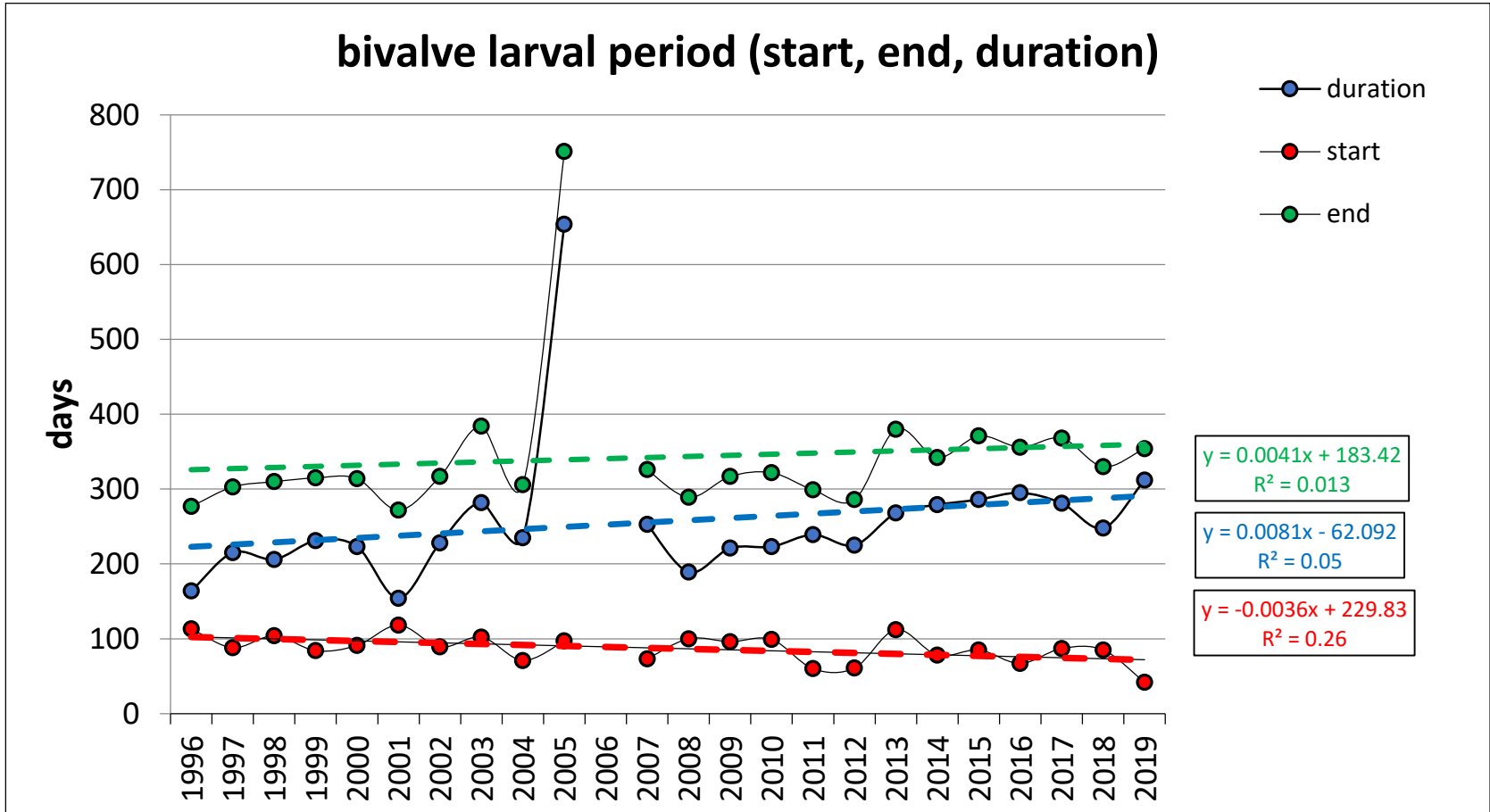


## Spawning characteristics of bivalves SRB (all species)

- No spawning month 1-3 and 11-12
- Proceeds during **milder winters** ( $> 5^{\circ}\text{C}$ )



# Spawning characteristics of bivalves SRB (all species)



**Cockle**



*Cerastoderma edule*  
Netherlands, Zeeland, Brouwershaven  
NMR 32644. Common size 55 mm

J. Trausel

**Pacific oyster**



Decler, Misjel

***Magallana gigas***

**American razor clam**



Nuyttens, Filip

***Ensis leei***

**Baltic tellin**



Decler, Misjel

***Limecola balthica***

**Cockle**



*Cerastoderma edule*  
Netherlands, Zeeland, Brouwershaven  
NMR 32644. Common size 55 mm

J. Trausel

**Sandgaper**



Berndt, Holger

*Mya arenaria*

**American razor clam**



*Ensis leei*

Nuyttens, Filip

**Blue mussel**



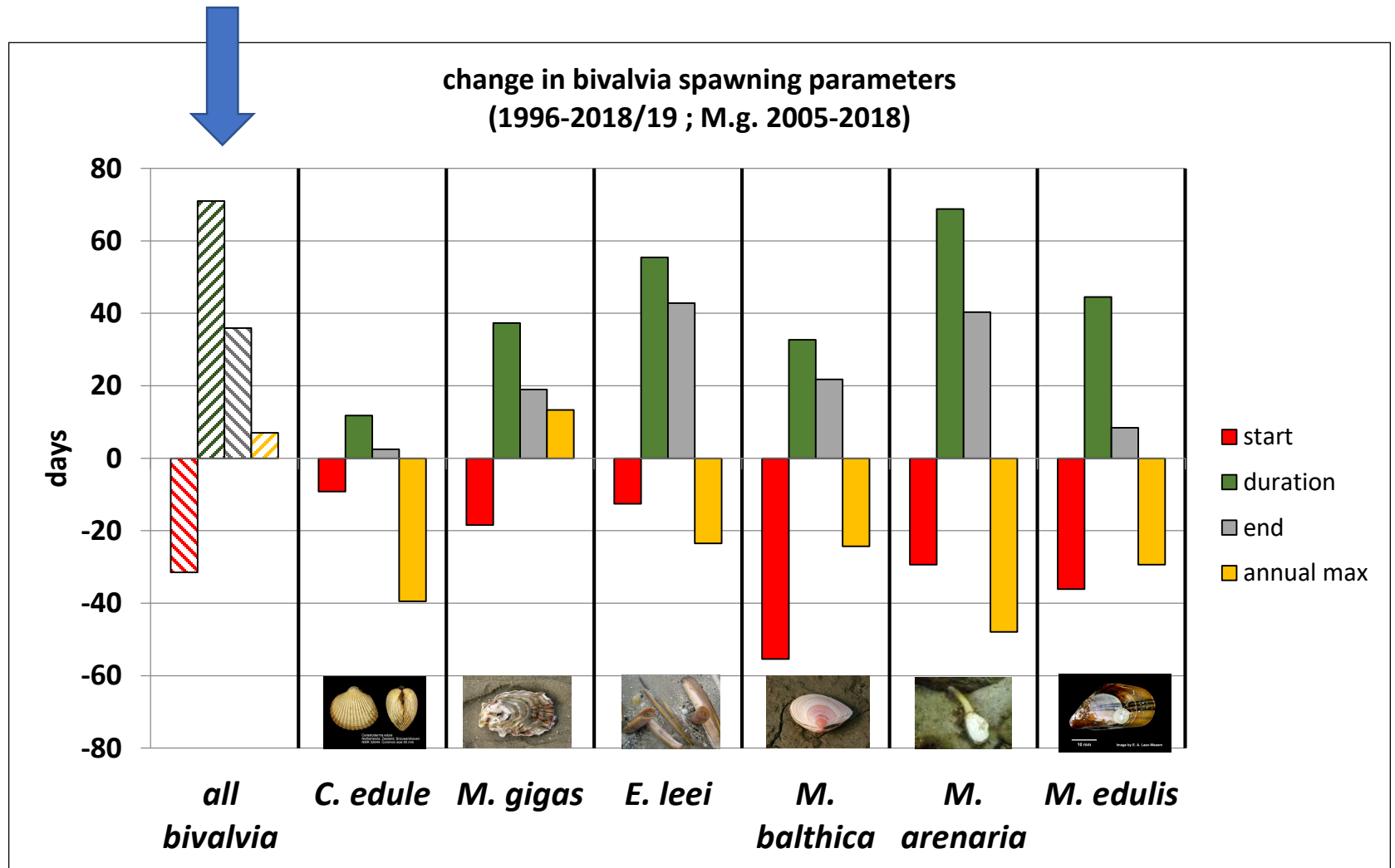
10 mm

*Mytilus edulis*

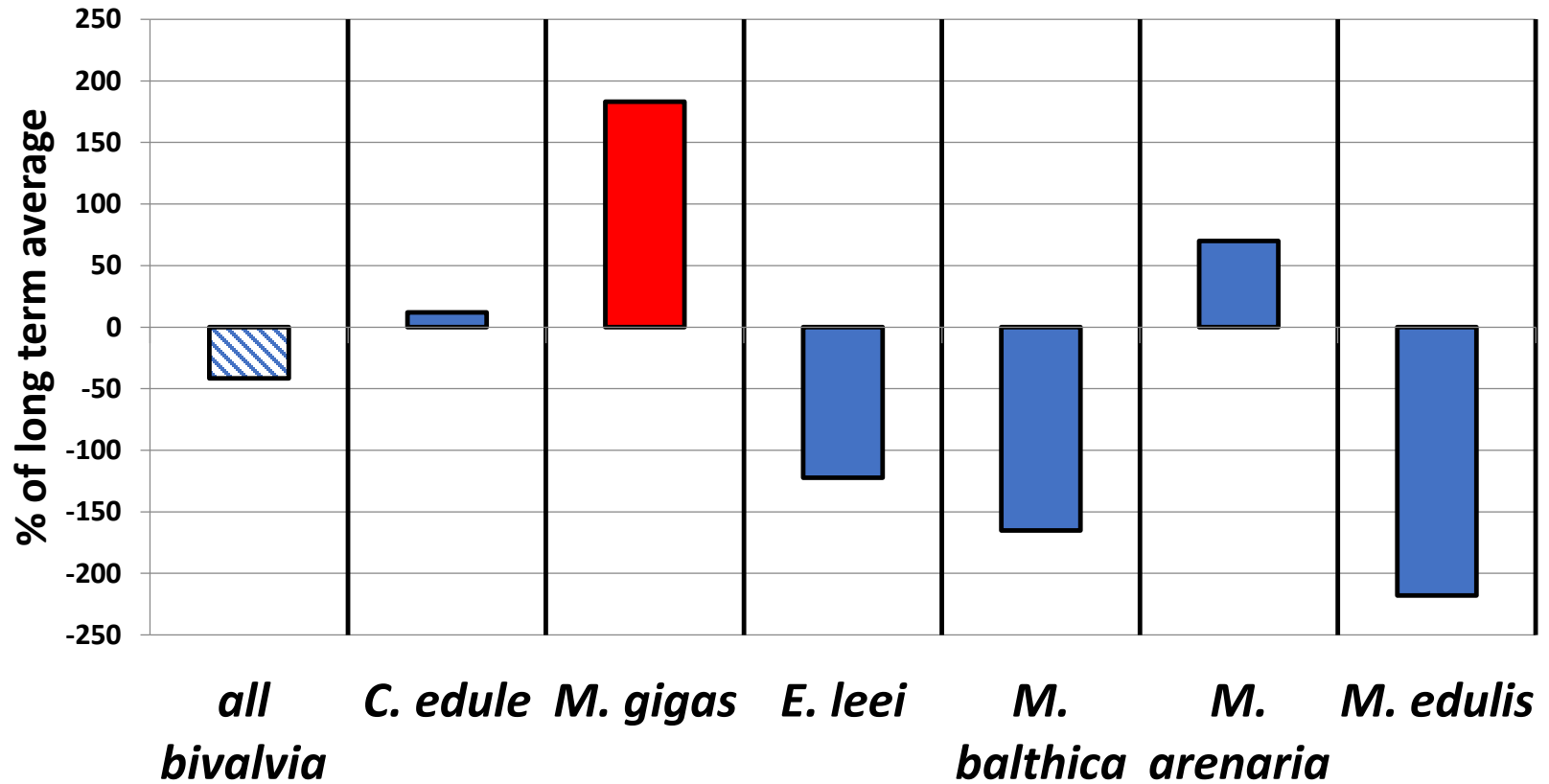
Image by E. A. Lazo-Wasem



# Spawning characteristics of bivalves SRB (all and single species)



change in mussel larvae abundance (% of LTA)  
(1996-2018/19 , *M. gigas* 2005-2018)



- Rising temperatures affect mussel spawning
- Extension of spawning period
- Most enhanced by mild winters
- But: larval abundances show signs of decrease
  
- Onset of starvation ???

Mismatch (SRB): diatom spring bloom – mussel larvae

*Milder winter temperature*

- delays spring bloom (top down by filter feeders)
- promotes earlier spawning in mussels

Questions???