Abstract 5420

SPECIES-SPECIFIC PHENOLOGICAL RESPONSES TO CLIMATE POSE CONSEQUENCES FOR HIGHER TROPHIC LEVELS

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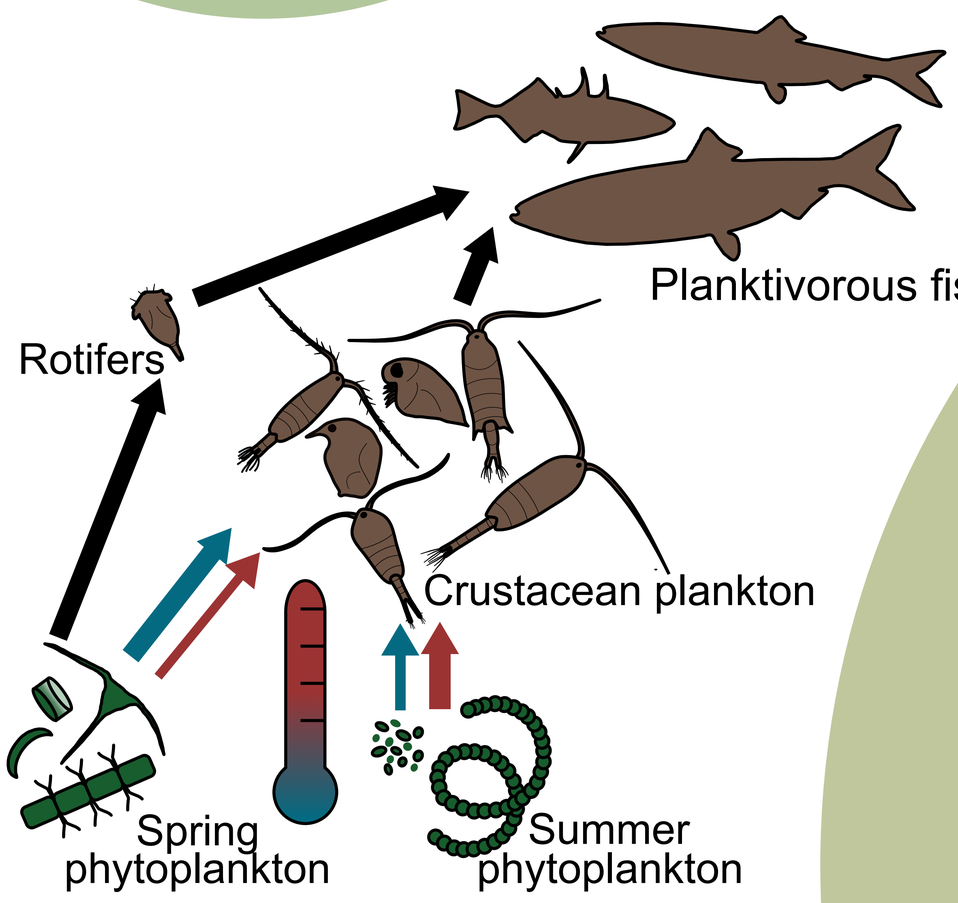
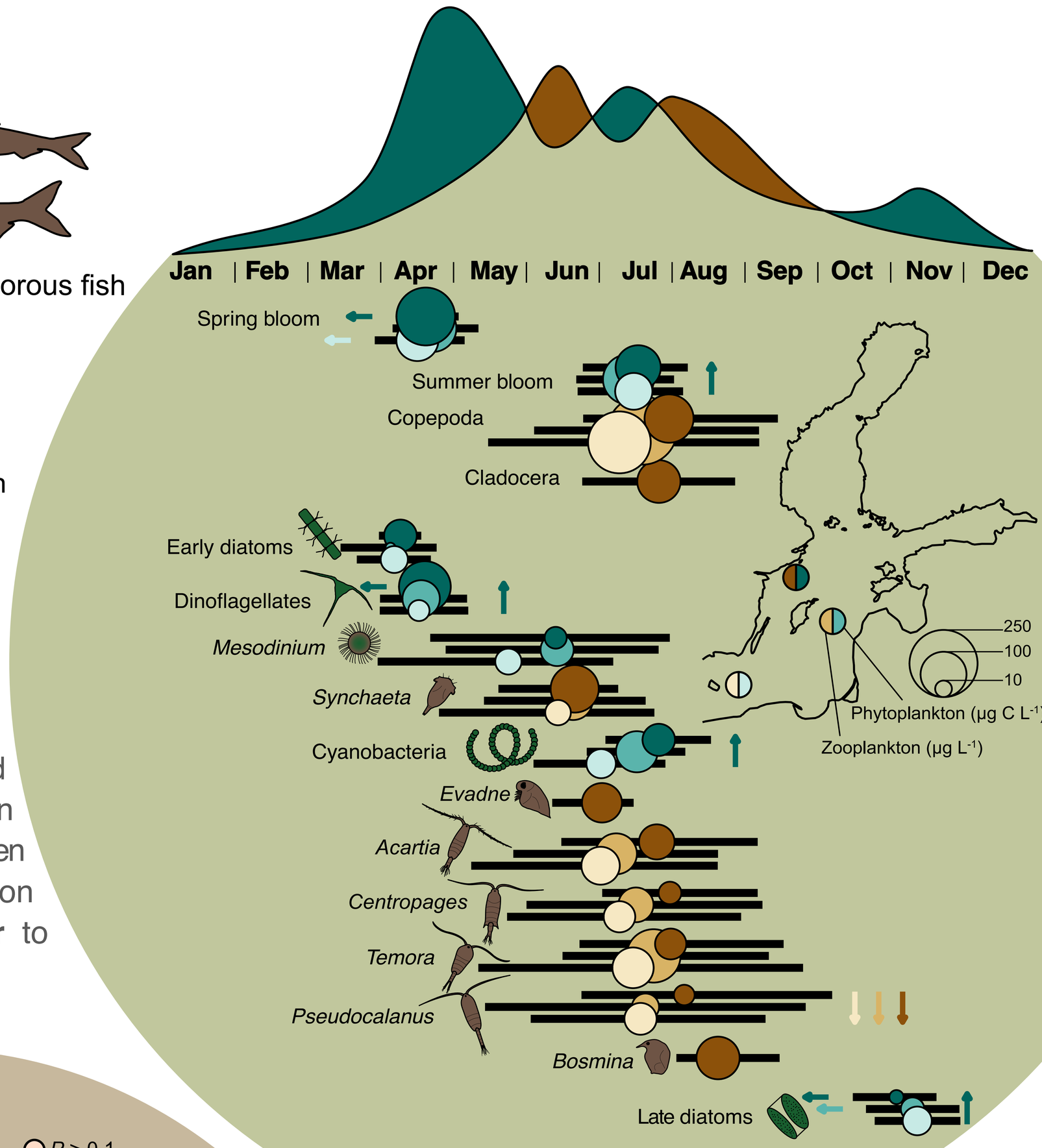
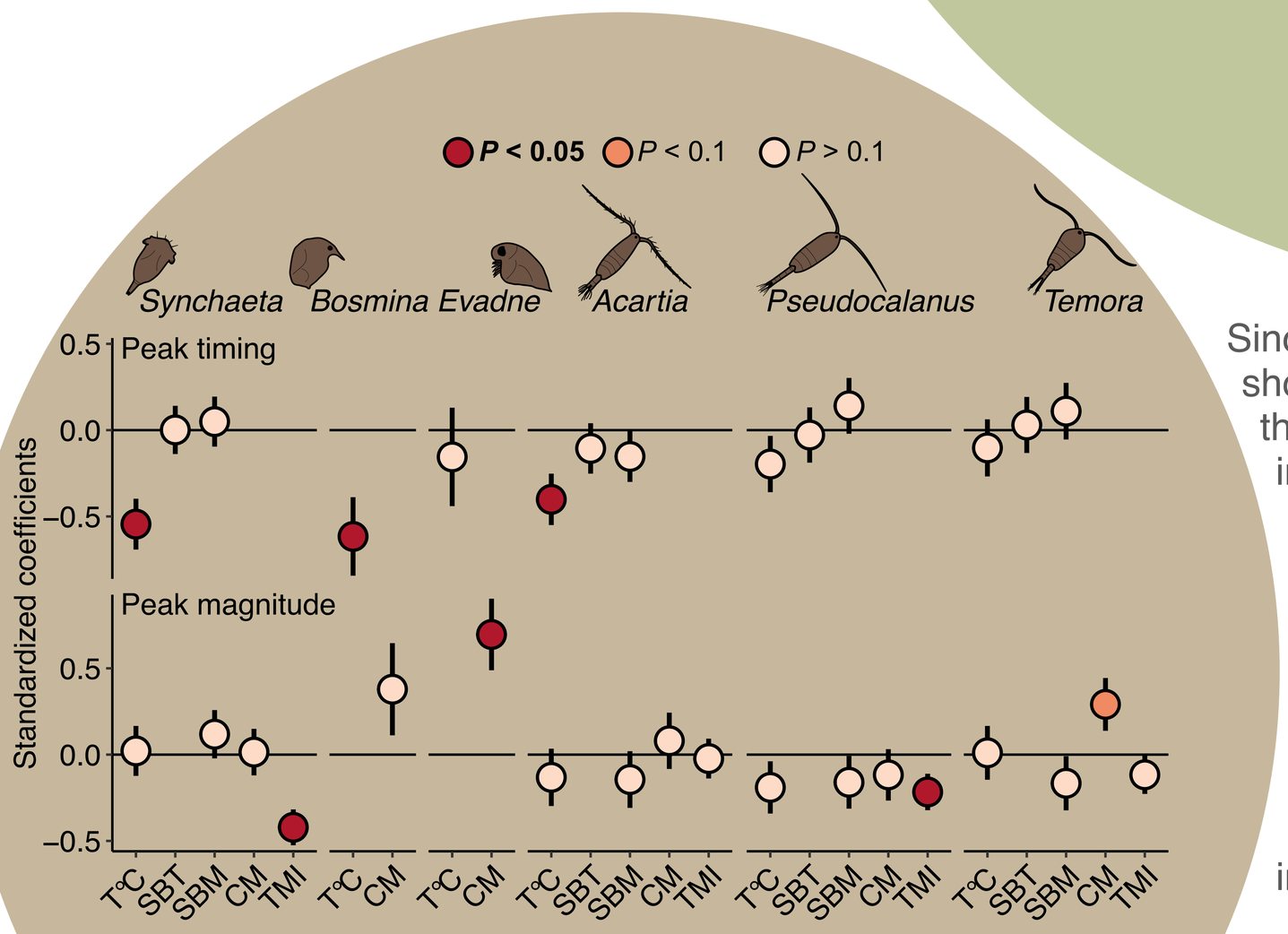


Climate sensitivity differ among and within functional groups leading to an increasing **trophic decoupling** between zooplankton and spring phytoplankton blooms, that **affect energy transfer** to higher trophic levels.





T°C: Temperature, SBT: Spring Bloom Timing, SBM: Spring Bloom Magnitude, CM: Cyanobacteria Magnitude, TMI: Trophic Mismatch Index

Since 2008, spring phytoplankton blooms advance and show a temporal mismatch with crustacean plankton that consistently peak in summer together with the increasing cyanobacteria bloom.

The majority of copepods and cladocerans relies on the increasing summer phytoplankton blooms.

Synchaeta and *Pseudocalanus elongatus* are strongly dependent on the spring bloom.

P. elongatus decline in the Baltic Sea is linked to increased offset with the spring bloom.

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