

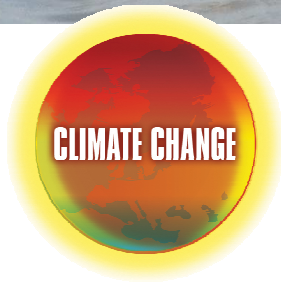
Daily temperature fluctuations alter interactions between closely related species of marine nematodes

De Meester Nele, G.A.P. Dos Santos, A. Rigaux, Y. Valdes, S. Derycke and T. Moens

Marine Biology, Dept. Biology, Ghent University

Departamento de Zoologia, CCB, Federal University of Pernambuco, UFPE, Brazil

nele.demeester@ugent.be



Global temperature ↑

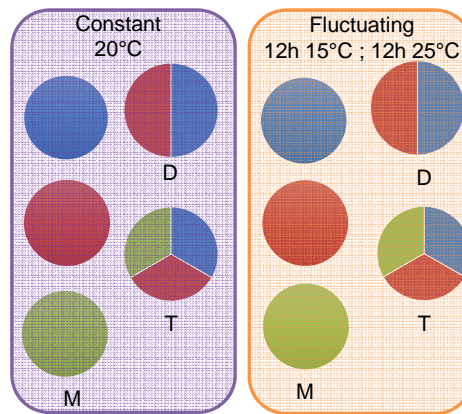
Daily temperature fluctuations ↓

Effect on **fitness** of species?
Effect on **interspecific interactions**?

Model organism:

Marine bacterivorous nematode morphospecies ***Litoditis marina***,

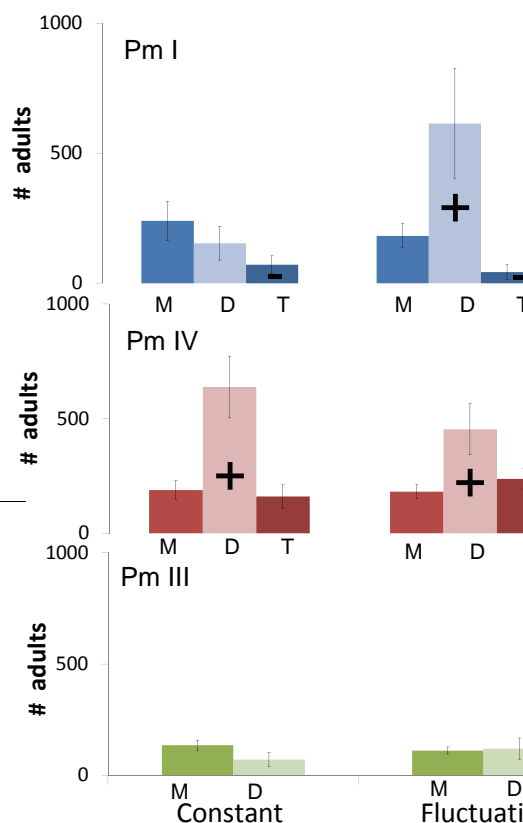
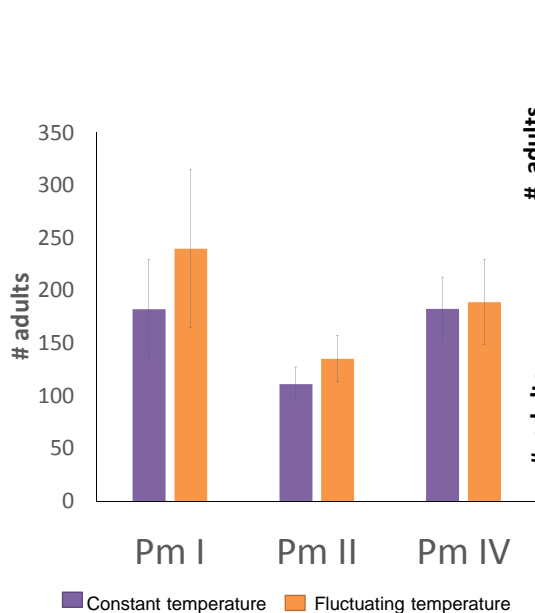
Complex of several **cryptic species**, often co-occurring: PM I, III and IV:



No effect of temperature regime on fitness

Interspecific interactions affect fitness

Temperature alters interspecific interactions



Constant ⇌ Fluctuating

D Mutualism ⇌ Commensalism
T Competition between juveniles Pm I and Pm III stronger

Competitively intransitive network (co-)depending on abiotic factors



Incorporate the effect of temperature regime on interspecific interactions to predict the effect of climate change on biodiversity