



Marine Biology

Faculty of Sciences, Department Biology

Magda Vincx, Ann Vanreusel, Tom Moens

9 postdoctoral researchers

20 PhD students

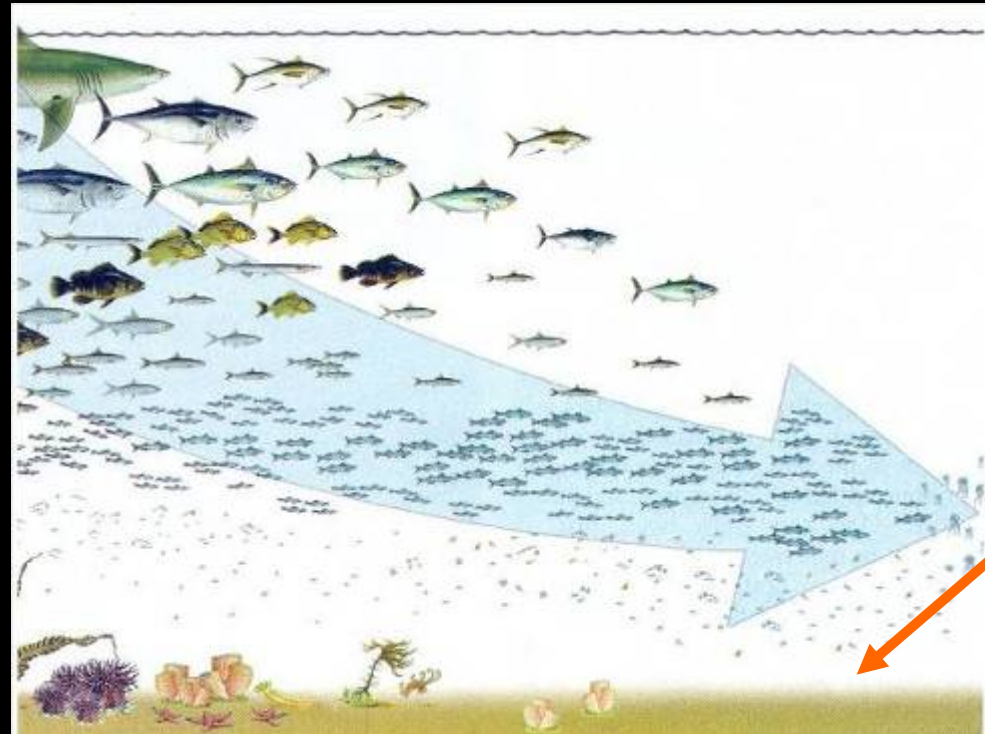
> 30 master- and bachelorstudents

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Problem: **LOSS of biodiversity** in the sea due to eutrophication, overfishing, physical disturbance, global change, invasive species, ...

'Fishing down the food web'



**Impact
on
BENTHOS?**

from: In a Perfect Ocean, Pauly & Mclean, Nature 2003

- **Environmental impact assessment**
- **Marine spatial planning**
- **Ecological knowledge for sustainable use of marine products (e.g. through aquaculture, blue biotech, ...)**

Loss of BIODIVERSITY of benthic organisms :
studied at the level of
genes - species – ecosystems

STRUCTURE of biodiversity (patterns)



FUNCTIONAL ASPECTS of biodiversity (processes)



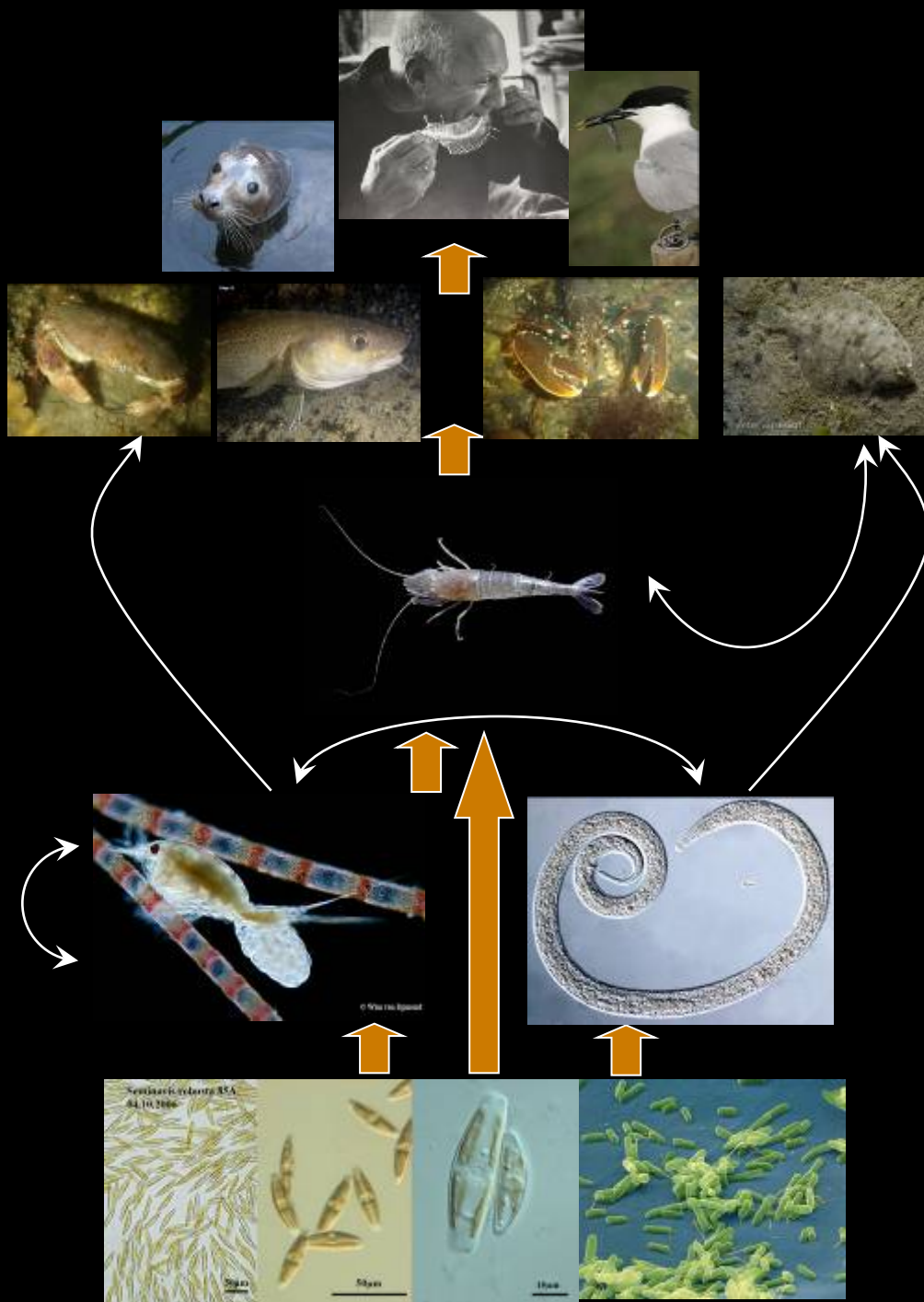
MANAGEMENT of biodiversity

Ecosystems approach focus on **sediments** : accumulation and remineralisation of organic material and nutrients



Marine food webs

To eat and to be eaten



food for shrimp/fish

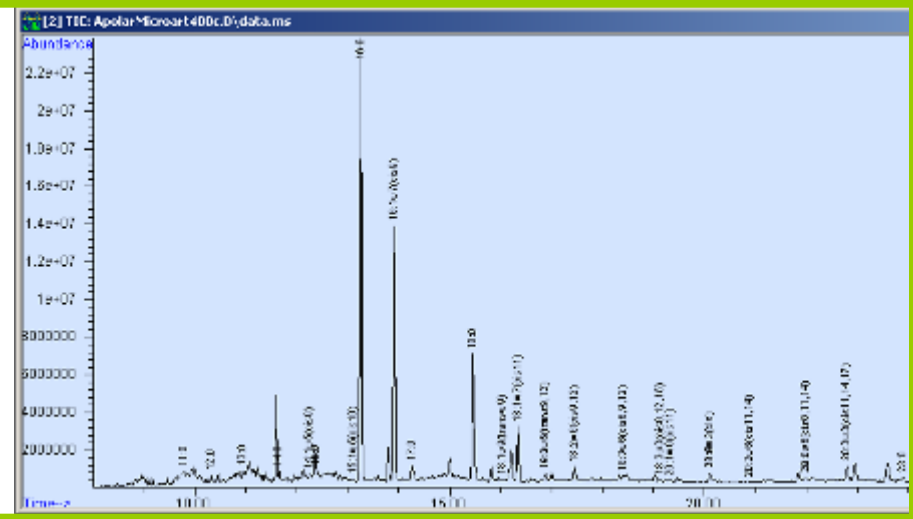
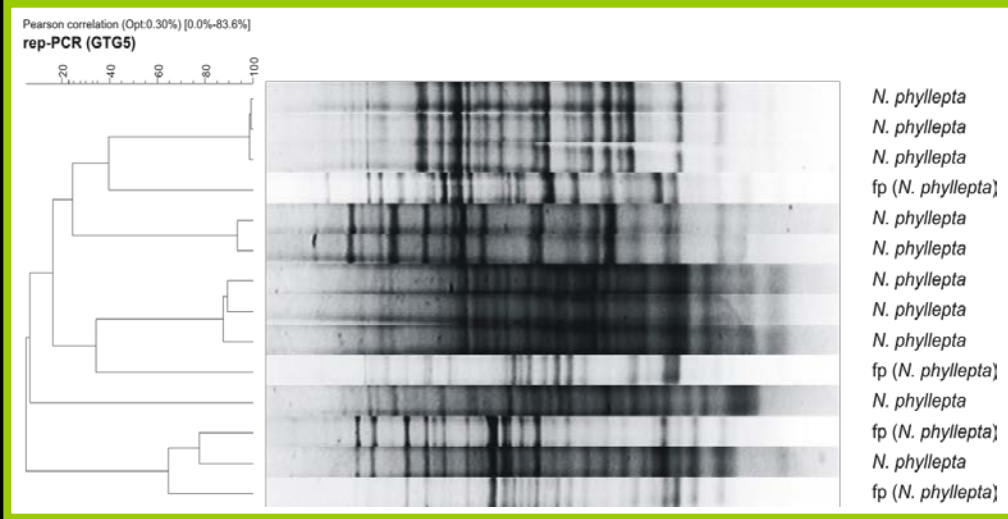


grazers:
copepods/ nematodes

food:
diatoms/ bacteria



Tools: experiments, biomarkers (lipidomics)...
Goal: understand energy flow and pathways
→ efficient use of bioproducts (for blue biotech)



Education



Training in Marine Sciences *s.l.*

- ✓ Bachelor / Master Biology
- ✓ Erasmus Mundus Master in Marine Biodiversity and Conservation (EMBC)
- ✓ Master of Marine and Lacustrine Science and Management (Oceans & Lakes)
- ✓ Master Nematology
- ✓ Erasmus Mundus Master in Nematology
- ✓ Master of Aquaculture
- ✓ Erasmus Mundus PhD programme MARES

