



Oceans & Lakes

Master of Marine and Lacustrine Science and Management

Activities extra muros:

- on the field, on lakes, at sea -

Photobook

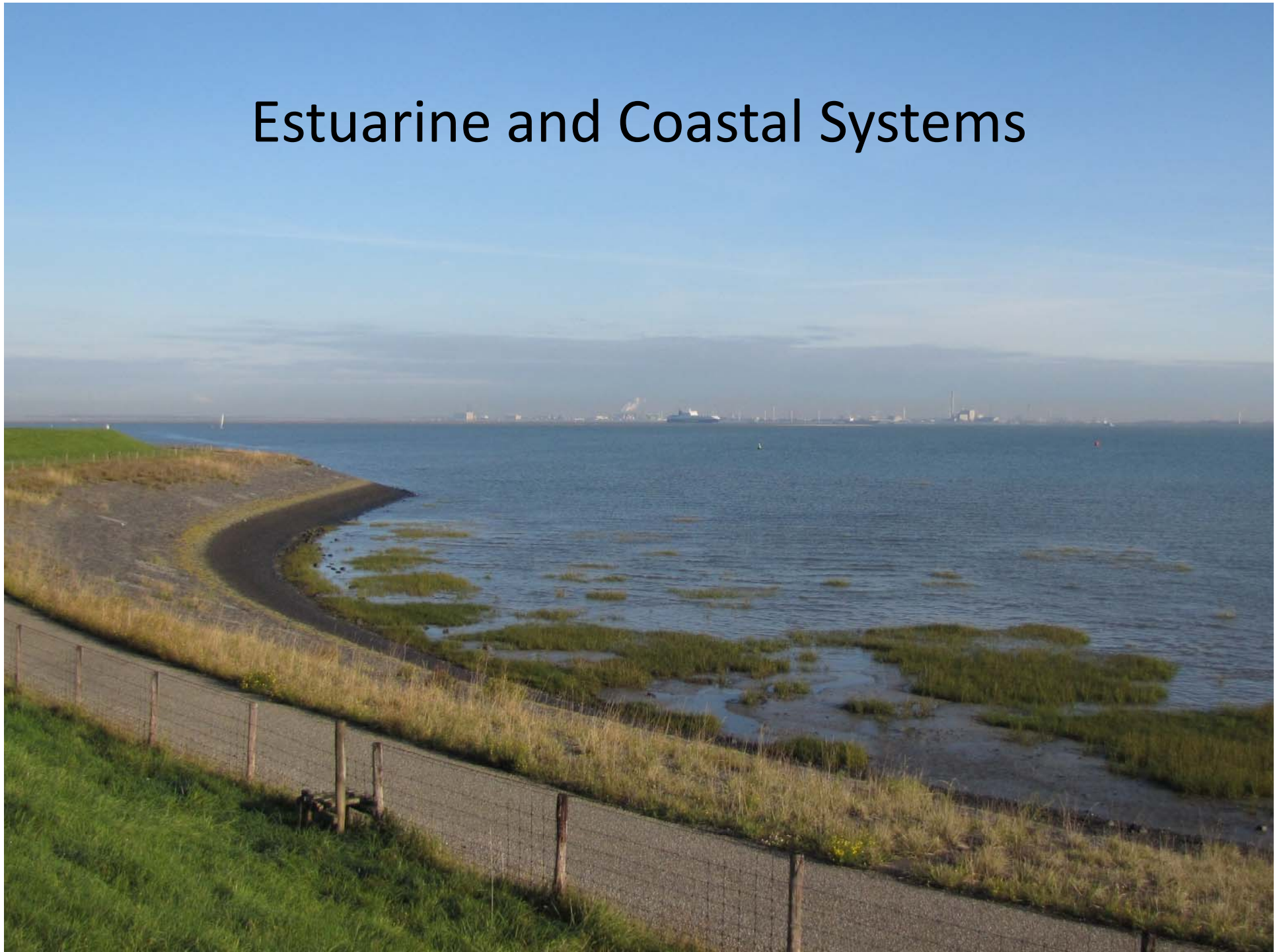




- Unique **inter-university** master programme with experts from 3 universities: Vrije Universiteit Brussel, Universiteit Gent and Universiteit Antwerpen
- Involvement **research and management institutes**
- Provides strong **fundamental** and **applied** knowledge and skills
- Prepares for an active role in **scientific research** and **management** of marine and lacustrine systems
- **Multidisciplinary** approach - integrating physical, chemical, geological, ecological and societal aspects and including **nature conservation, environmental conservation, sustainable development** and **research for development cooperation**
- Trains students in becoming **critically minded, problem solving** and **communicative**
- **International** recruitment and employment



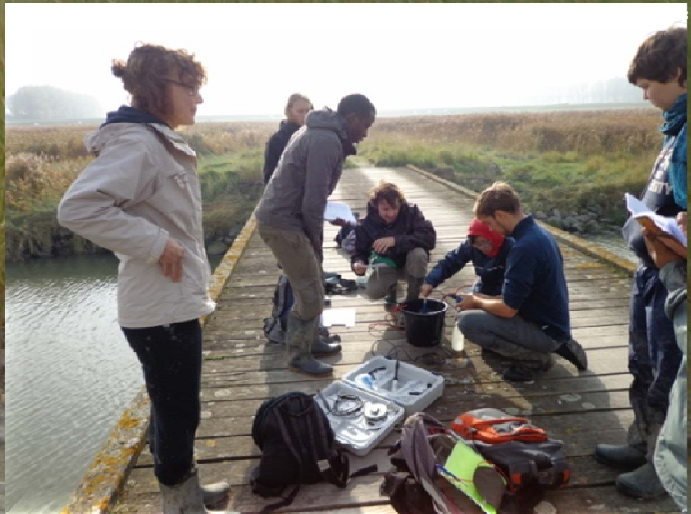
Estuarine and Coastal Systems





- Ecological processes and structures of estuaries and coasts, covering tidal mudflats and sandflats, tidal marshes and mangroves, beaches and dunes
- Ecological management of estuaries and coasts
- Recognizing and investigating these processes and structures during a field course





River & Lake ecology



- Diversity of the chemical composition of aquatic ecosystems
- Explain the main processes of a lake ecosystem
- Use of a suitable bio-indicator method
- Management of water plants and vegetation
- Framing for policy (standards, regulations, actions)





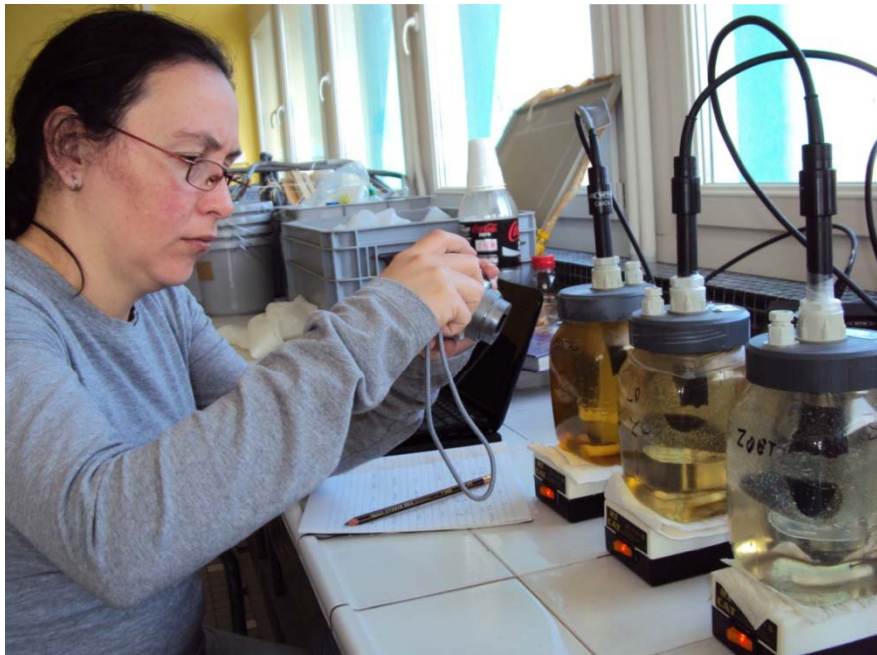
Integrated Marine Coastal Ecology Field Course



- Focus on the ecology of three different types of coastal habitats: beach, rocky shore, and estuary at the French coast of the English Channel
- Small research projects in groups of 3-4 students on ecological problems and physiology of macro-invertebrates
- Developing research autonomy, gaining expertise in designing experiments and sampling, in interpreting and presenting results and in playing part in environmental management







Integrated Field Course at Sea

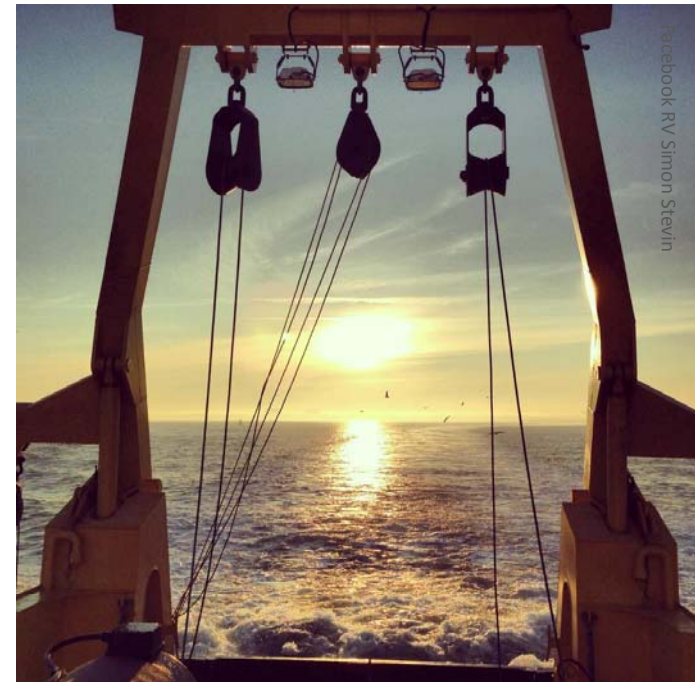


Research Vessel Simon Stevin from the Flanders Marine Institute (VLIZ)

- Integrated sampling campaign on the Belgian part of the North sea with research vessel Simon Stevin and RV Belgica
- Running through most of the stages of a scientific expedition at sea
- Applying a multidisciplinary approach in marine research
- Getting acquainted with different techniques and sample collection data
- Collaborating in a scientific team and a vessel crew



copyright Guy De Smet



facebook RV Simon Stevin





In-situ and remote sensing tools in aquatic sciences

- Introduction to marine acoustics, optics and remote sensing
- In-situ ground-truthing techniques and water column tools
- Monitoring of the physical and biological environment

RV Belgica

Managed by the management Unit of the North Sea Mathematical Models and the Scheldt estuary (MUMM), a department of the Royal Belgian Institute of Natural Sciences (RBINS)



Management of Aquatic Resources: Fisheries

- Sampling techniques in fisheries research on board of a research vessel
- Analysis of the data collected during the excursion on the research vessel

RV Simon Stevin



Integrated Limnological Field Course

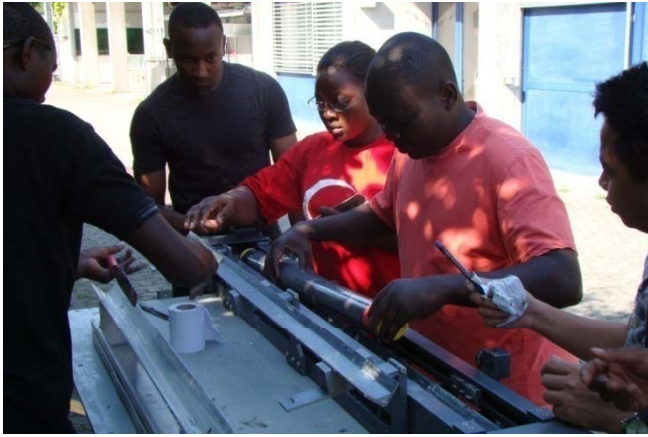




EAWAG, a research institute affiliated with ETH Zürich, located on the shore of Lake Luzern

- Focus on diversity of different systems and processes from the lacustrine environment
- Determining an optimal sampling strategy and experimental design
- Analysing the data obtained from appropriate tools, followed by critical discussions and reporting of results





Tropical marine ecology and restoration



Theme of the course:

- Ecology and biogeography of tropical marine and coastal systems
- Conservation of such systems, the management and restoration of their ecological functioning when disrupted

Excursion in a 'temperate proxy'
(Ijzer estuary, Belgium) –

Restoration of intertidal mudflats:
role of scientists, NGO, and political authorities
(field visit guided by the managers and
interview with the authorities at Nieuwpoort
commune) in conflicts and solutions



Governance and Policy in Development Cooperation Part I



Interview: Alexei Jones (EuropAid - European Commission)
Theme: development policy of EU and member states
(venue: EU offices Brussels)

- Translation of science to policy and governance
- Surveys of relevant international bodies, agreements, treaties and other tools, donor agencies
- A wide coverage of political levels and geographical regions (NGO, regional government, national government, EU,...).



Interview: Veerle Vandenabeele (OXFAM)
Theme: role of an NGO in development cooperation and aid
(venue: head office OXFAM, Brussels)



Interview: Prof. Micheni J. Ntiba
(CBS Permanent Secretary Ministry of Fisheries
Development, Kenya)
Theme: role of a ministry in managing marine resources
(venue: VLIZ, Ostend)



Interview: Elke Van den Brandt (GROEN!)
Theme: politician's role (MP) in development cooperation
(venue: Brussels Parliament, Brussels)



Interview: Karen Büscher (UGent)
Theme: aid and development cooperation in conflict and
war zones (venue: UGent, Ghent)









Contact:

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