

***The University of Antwerp is a knowledge centre with 3.600 co-workers that performs ground-breaking and innovative research of international standing. The university takes special care to ensure optimum support and supervision of students, and pays constant attention to educational innovation. The university is an autonomous pluralistic institution that is committed to the enhancement of an open, democratic and multicultural society, and it pursues an equal opportunities policy***

The Department of Biology of the Faculty of Sciences invites application for:

**PhD position (m/f) in the domain of  
Geomorphology and ecology of estuaries**

Description of the position:

- You prepare a PhD dissertation on the ecogeomorphological development and management of estuaries. Estuaries, as for instance the Schelde estuary, have important societal functions (fe. as a shipping route to the Antwerp harbour), as well as important ecological functions (fe. the tidal flats and marshes of the Schelde estuary are protected under the European Bird and Habitat Directives). Both functions strongly depend on the geomorphology of the estuary: navigation is dependent on the depth of the channels, while the elevation of the tidal flats and marshes is determinant for their ecological development. Moreover, the geomorphology of estuaries is highly dynamic, due to natural processes (erosion and sedimentation) and human activities (fe. dredging). Building on earlier research, this research project aims at investigating the relations between the morphological development of the channels on the one hand, and intertidal areas on the other hand. This can be studied on the basis of historical documents (fe. bathymetric maps) for a number of estuarine systems in Zeeland, such as the Zwin, Braakman and Hellegat. The relations will be studied between changes in channel dimensions (width, depth, volume), discharges, tide storage, and amount of intertidal area. GIS (Geographical Information Systems) and possibly simplified hydrodynamic modelling will be used for the analyses. The historical geomorphological evolution of the estuarine systems under study will be interpreted with respect to the morphological evolution and management of the Westerschelde. This research will be carried out within the research group Ecosystem Management (Department Biology, Faculty of Science), that is specialised in fundamental and applied research, a.o. with respect to ecological and geomorphological processes in rivers and estuaries, with special attention for the Schelde estuary. This project is carried out in cooperation with the Waterbouwkundig Laboratorium (Borgerhout), that carries out policy-oriented research on the water- and sediment movement in rivers, estuaries and coastal areas.
- You publish research results in international scientific journals.
- To a limited extent you contribute to teaching in the research group Ecosystem Management a.o. in the courses Coastal and estuarine ecology, River morphology and hydrodynamics, Biogeomorfologie, and Geographical Information Systems.

Your profile:

- You have a Master degree (or equivalent) in Engineering, Physical Geography, Geology, Biology or Bio-engineering and have excellent study results.
- Students that graduate this academic year are also strongly encouraged to apply.

- Preferrably you have experience or interest in river geomorphology and hydrodynamics, as well as in the processing and interpretation of data sets and in numerical modelling
- Experience or interest in GIS (Geographical Information Systems) is highly recommended.
- You have a communicative and enterprising attitude and are able to work independently as well as in a team
- Fluent in English (spoken and written language)
- The emphases in your teaching correspond to the UA educational vision (<http://www.ua.ac.be/onderwijs>)
- Your academic qualities comply with the requirements stipulated in the university's policy (<http://www.ua.ac.be/main.aspx?c=.ENGLISH&n=25481&ct=24883>)
- You are quality-oriented, conscientious, creative and cooperative

Our offer:

- A fascinating and versatile research and PhD project in a dynamic research group
- A full-time contract for 1 year, extendable with maximally 3 years after positive evaluation
- The earliest starting date is October 1, 2012 (can be discussed)
- Additional training and education possibilities (e.g. PhD training)
- Regular participation to international conferences.

How can you apply:

- You can apply until August 31, 2012
- Send your curriculum vitae and application letter to Els Van Duyse, [els.vanduyse@ua.ac.be](mailto:els.vanduyse@ua.ac.be). Describe briefly (max 250 words) your previous knowledge and your motivation.
- For more information on the scientific content, you can contact:
  - prof. Stijn Temmerman, e-mail: [stijn.temmerman@ua.ac.be](mailto:stijn.temmerman@ua.ac.be), tel. +32 3 265 23 13
  - prof. Patrick Meire, e-mail: [patrick.meire@ua.ac.be](mailto:patrick.meire@ua.ac.be) tel. +32 3 265 22 74