Associate Professor in Catchment-Scale Hydrological Modelling

Do you excel in numerical modelling to quantify hydrological processes and pollutant transport at catchment scale? In both research and science-based advice? Then apply to the open position as Associate Professor in the field of catchment and ecosystem modelling at the Department of Ecoscience, Aarhus University.

Application Deadline:
15 January 2026

Institute/Faculty:
Department of Ecoscience

Faculty:
Faculty of Technical Sciences

Academic contact person:
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Vacant positions:
1

Hours per week:
37

Expected date of accession:
01/05/2026

Expected start date and duration of employment

This is a full-time position starting on 1 May 2026, or as soon as possible thereafter.

Job description

The successful applicant will be expected to build a modelling group within catchment and freshwater science focusing on nutrient and contaminant transport from agricultural and natural ecosystems to rivers, lakes, and coastal waters.
We are particularly interested in further development and improvement of the bio-physical catchment model SWAT+, as we use this model both as a research tool and in advisory work.

The position is located in the Catchments and Freshwater Ecosystems focus area at the department but will also be involved in many cross-cutting initiatives with f.ex. the Marine and Arctic focus areas.

Your profile

You are an experienced modeller of hydrological and pollutant transport processes at the interface of terrestrial and freshwater ecosystems with in-depth knowledge of the effects of land use, agricultural management, and climate change on water resources.

You should be able to demonstrate experience in ecosystem and catchment modelling and use both simple and advanced models to describe and understand biogeochemical processes in catchments. Specifically, you should have an in-depth knowledge on the setup and use of models for assessing spatially differentiated mitigation measures in agriculture.

The Department's research and advisory activities are project-driven with a solid tradition of cross-disciplinary research and strong team collaboration. Thus, it is expected that you have good collaboration skills, as the position is meant to be able to link researchers with different backgrounds, e.g., biologists, biogeochemists, engineers, agronomists, and environmental economists, and the ability to coordinate and enrich the scientific environment in the Department.

Furthermore, you should have good leadership skills as you will be expected to develop a modelling group within the department.

It will be evaluated positively if you have:

- Expertise in or knowledge of using SWAT+
- Expertise in or knowledge of developing SWAT+ modules
- Experience with writing proposals and obtaining funding for research and advisory projects
- Experience with advising authorities
- Experience with working with local stakeholders
- Good communication and people management skills
- Fluent English (written and spoken)
- Knowledge of spoken and written Danish or the willingness to learn Danish

Who we are

The Department of Ecoscience is engaged in research programs and advisory work covering the major biological subdisciplines. We conduct world-class research in the areas of aquatic biology and ecology, Arctic ecosystems, biogeochemistry, biodiversity, conservation biology and wildlife management. The Department holds a key position in the field of catchment science and is a national and international leader in catchment processes and freshwater ecology. The Department currently employs approximately 320 academic and technical staff, including many postdocs and PhD students.

The successful candidate will work in a collaborative and internationally engaged scientific environment at the Section for Catchment Science and Environmental Management within the Catchment and Freshwater focus area (https://ecos.au.dk/en/researchconsultancy/research-areas/catchment-science-and-environmental-management) in close collaboration with national and international collaborators.

The department is, and wishes to continue to be, an active, diverse and inspiring workplace with exciting challenges, enthusiastic colleagues and academic opportunities for development. The department wishes to support employees in creating a good balance between their work and home lives and to maintain and attract skilled and committed staff, where freedom, creativity and respect for the long-term perspective are core values. For more information on the Department see: http://ecos.au.dk/en/.

What we offer

The department offers:

- A multi-disciplinary research environment
- collaboration within strong research teams with extensive experience in catchment processes and freshwater ecology, cross-disciplinary research and long-term ecosystem monitoring
- an exciting interdisciplinary environment with many national, international and industrial collaborators,
- a well-developed research infrastructure, including access to internationally renowned field sites,
- a workplace characterised by professionalism, equity and a healthy work-life balance.

Place of work and area of employment

The place of work is Aarhus University, C.F. Møllers Allé, 8000 Aarhus and the area of employment is Aarhus University with related departments.

Contact information

For further information, please contact: Head of Section Hans Estrup Andersen (+45 87 15 87 68; hea@ecos.au.dk) or Deputy Head of Department John Jensen (+45 41 16 16 06; jje@ecos.au.dk)

Deadline

Applications must be received no later than 15 January 2026.

Ensuring gender balance at the Department of Ecoscience is a high priority at Aarhus University, and therefore, we particularly encourage women to apply for this position. No candidate will be given preferential treatment, and all applicants will be assessed on the basis of their qualifications for the position in question

Application procedure

Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the assessment committee if necessary, – the head of department selects the candidates to be evaluated. The selection is made on the basis of an assessment of who of the candidates are most relevant considering the requirements of the advertisement. All applicants will be notified within 6 weeks whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee and will receive his/her assessment. Once the recruitment process is completed a final letter of rejection is sent to the deselected applicants.

Letter of reference

If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in question before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline.

Unfortunately, it is not possible to ensure that letters of reference received after the application deadline will be taken into consideration.

If you wish to add a referee **after** you have submitted your application, you must send this person's details (name, job title, place of work, and email address) as well as the name of the position you have applied for to: HR.Nattech@au.dk

Formalities and salary range

Technical Sciences refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation.

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found here.

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the Memorandum on Job Structure for Academic Staff at Danish Universities.

Salary depends on seniority as agreed between the Danish Ministry of Taxation and the Confederation of Professional Associations.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more here. Please find more information about entering and working in Denmark here.

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/