

The Marine Evolution and Conservation (MarECon) group at the Centre for Ecological and Evolutionary Studies (CEES) has a vacancy for a (funded) **PhD position**. CEES is placed within the Faculty of Mathematics and Natural Sciences at the University of Groningen (RUG) in The Netherlands. The research conducted by the members of MarECon is primarily aimed at understanding the ecological and evolutionary genomics of pelagic marine organisms, in particular marine mammals. Our primary research approach is to leverage population genetics and genomics techniques to uncover the processes that partition genetic variation within the species that inhabit this comparatively open marine environment. This research is conducted with a global network of collaborators who collect data and tissue samples in the field.

Job description The research project is flexible and the successful candidate will have the choice to focus on some ongoing projects in the lab. Most of these projects include a major component of (genetic) data analyses and bioinformatics, some include the production of genomic data in the lab (using Next Generation Sequencing Technologies, NGS), and on rare occasion field sampling trips.

Comparative genomics in marine mammals Our lab is actively engaged in the production and analyses of whole genomes from marine mammals using NGS technologies. The ultimate goal is to analyze the molecular evolution of genes across the genome of the three marine lineages of mammals that came back to an aquatic existence and identify candidate genomic regions that could have been involved in this major transition. This project will consist of primarily bioinformatic, population genetic and genomic approaches.

Evolution of marine trophic networks Climate change and human activities have deeply impacted the evolution and functioning of marine ecosystems. Using a number of model systems, we are exploring how environmental and human perturbations have actually impacted various species at different trophic levels, and further understand the link between them. To make inferences about past and recent evolution of these ecosystems, and make predictions about their future evolution we will be combining ecological, historical and population genetic modeling.

Statistical phylogeography, demographic history and evolution in marine mammals Our lab has a long standing interest in understanding the factors and processes involved in the partitioning of individuals and thus the genetic variation within and among populations, ecotypes and subspecies. This is fundamental to understand key evolutionary and ecological processes, such as adaptation, behaviour, and speciation. This is also crucial for many conservation issues. Therefore, our approach is multidisciplinary and combines population genetics/genomics, geo-statistical probabilistic modeling with ecological approaches such as (paleo-) habitat modeling, feeding ecology, etc. Our research focuses on various (pelagic) species, particularly for marine mammals. For example, we are currently developing projects on the demographic history and evolutionary genomics of harbour porpoises (*Phocoena phocoena*) and the comparative phylogeography of marine mammals, among other projects.

Qualifications We seek a bright and highly motivated and enthusiastic person able to work both as part of a team and independently. The ideal candidate would have a master degree in ecology and evolutionary biology, with good background in population genetics, bioinformatics, genomics and computational biology. Candidates from other programs such as computational sciences, bioinformatics, and mathematics with a strong interest in ecology and evolution are also invited to apply. Proficiency with R statistical language, Linux/UNIX shell scripting, and (at least) a high level programming language (e.g. Python) is recommended. Experience with NGS technologies, Geographic Information System, SQL data bases is a plus, but full training will be provided. The language in the lab is English. A high standard of spoken and written English is required.

Conditions of employment The University of Groningen offers a salary of

euro 2,083 gross per month in the first year up to a maximum of euro 2,664 gross per month in the final year (salary scale Dutch Universities). Initially, the position will be for 1 year with possible extension of another 3 years, depending on performance during the first year. The PhD candidate will be evaluated after the first year in order to determine the likelihood of a successful completion of the PhD thesis within the following three years. If a successful completion is deemed unlikely, the employment will not be extended. The main objective of the position is to conduct original research published as research articles in peer-reviewed scientific journals. These publications will form the basis of the doctoral thesis that will lead to obtaining a PhD degree (Dr) at the University of Groningen. The candidate will be enrolled in the RUG Graduate School of Science, and attend graduate courses within the Research School Ecology and Evolution. The PhD student will be supervised by Dr Michael C. Fontaine. Application To apply for the position, please provide: (i) a letter of maximum 2 pages describing your personal motivation for applying for this position, outlining skills and experience pertinent to the position and past experience. In addition, please include a brief explanation of what you think the main research questions in evolution and conservation are today for marine mammals and that you would like to develop during your PhD; (ii) a complete curriculum vitae including publication list; and (iii) names and contact details (addresses, emails, and telephone numbers) for three referees willing to write confidential letters of recommendation. Complete applications should be submitted **before**

14 November 2014

, Dutch local time by means of the application form ("Apply" link) on the university website : <http://www.rug.nl/about-us/work-with-us/job-opportunities/overview?details=347-02S00048SP&cat=phd>

Interviews will be planned shortly after November 2014. The ideal starting date would be around January 2015. Information Advertise and "apply" link for the application on the university website:

<http://www.rug.nl/about-us/work-with-us/job-opportunities/overview?details=347-02S00048SP&cat=phd>

Information on the PhD, contact Dr Michael C. Fontaine (m.c.fontaine@rug.nl

, do not use for applications) Groningen, Netherlands:
<http://www.rug.nl/education/why-choose-groningen>

The University of Groningen (RuG):
<http://www.rug.nl/about-us/work-with-us>

CEES:
<http://www.rug.nl/research/cees>

MarECon:
<http://www.rug.nl/research/marine-evolution-and-conservation>

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