

Job open for Research Associate in road ecology (American marten)

Project: Effects of roads and wildlife passages on medium-sized and small mammals

Research Associate position available about the effectiveness of road mitigation measures for American marten (road ecology) starting in February, March, or April 2014

Start date: February, March, or April 2014 (depending on availability)

Position duration: 2 years

Location of work: Concordia University, Montreal, and fieldwork between Quebec City and Saguenay.

Position Description

We are currently searching for a 2-year Research Associate to conduct research into the effectiveness of wildlife passages and fences along roads for American marten.

The work will combine fieldwork and work in the office. Fieldwork location is along highway 175 between Quebec City and Saguenay. Office location is Concordia University in downtown Montreal.

The widening of highway 175 between Quebec City and Saguenay has been one of the largest road expansion projects in Canada during the last 5 years. The region is important habitat for many wildlife species since the road runs through the Reserve Faunique des Laurentides and is adjacent to the Parc de la Jacques-Cartier. There is increasing concern about the reduction in connectivity for wildlife across roads. Connectivity is important for many ecological processes such as access to resources on both sides of the roads, gene flow across the road, dispersal of subadults, source-sink dynamics, and predator-prey dynamics. 33 new wildlife passages have been constructed which are among the first designated wildlife passages for medium-sized and small fauna in Quebec (Bédard et al. 2012). There is an urgent need to evaluate their performance for a variety of species to inform management with regard to the implementation of wildlife passages along other highways. This project is part of a larger project about the effectiveness of mitigation measures (in collaboration with Dr. A. Clevenger and Dr. A. Desrochers and others). The work is about the effects of the road on American marten movement and compares different types of wildlife passages (with fences). It includes VHF telemetry, capture-mark-recapture, translocation of individuals, snow tracking, and non-invasive detection methods (cameras, hair snares) using genetic analysis. The research involves fieldwork, logistic and management tasks, teaching and supervision of field volunteers, report writing, and publication of peer-reviewed papers, and other office work.

Background: Dr. Jaeger's research is in Landscape Ecology, Road Ecology, and Environmental Impact Assessment. You find some more detailed information here:

<http://www.gpe.concordia.ca/about/facultystaff/jaeger.php>, e.g., our News Bulletin no

3: http://gpe.concordia.ca/documents/Jaeger_et_al.2013_Suivi_efficacite_passages-rte175_bull_3-final-1.pdf. I would be happy to provide more information.

Skills and qualifications

The successful candidate will hold a very strong Master's Degree (or equivalent) or a PhD in Wildlife Biology, Ecology, Mammalogy, Zoology, or related field, and is able to demonstrate the potential for excellence in the research area. Applicants should:

- have a solid background in the ecology of medium-sized mammals, including the identification of mammals of Quebec,
- have good skills in species identification on photos taken in wildlife passages,
- is able to work with live, injured, and dead animals in a professional (and ethical) manner,
- have good skills in speaking French,
- have a good command of written and spoken English and good writing skills in English,
- have some (successful) experience with publishing their work in international peer-reviewed journals,

- have good oral presentation skills,
- have good experience with the statistical analysis of data (GLM etc.) and good quantitative skills (formulas, graphs),
- have experience with GPS and GIS (e.g., to determine home ranges),
- have good skills in data entry and data management and some knowledge of databases (e.g. Access),
- have good knowledge of the relevant literature (medium-sized mammals, road ecology, some genetics),
- is highly motivated, open-minded and able to work well alone and in a team, including good communication skills as a team-player,
- have good skills in organization and time-management,
- be responsible and reliable,
- have a valid driving license,
- is willing to work on weekends, holidays, and irregular hours.

Experience with VHF telemetry would be an asset. The research requires a strong interest in fieldwork. This work will best be done by someone who has conducted and organized fieldwork before (preferably with medium-sized or small mammals) and knows the challenges and can carry out the work properly. The position at times requires to complete physically demanding duties (such as walking through a dense boreal forest and performing VHF telemetry at night).

Work Environment

The fieldwork will be conducted in the Réserve Faunique des Laurentides and the Parc des Grands-Jardins between Quebec City and Saguenay. Fieldwork will be conducted in a team over several months each year (summer and winter). The research associate will be a member of the Landscape Ecology and Environmental Impact Assessment lab of Dr. J. Jaeger at Concordia University in Montreal. Office space will be provided.

Funding support/salary

The position is fully funded for about 2 years. The salary is between 48,000 and 53,000 \$Can per year (including benefits).

The position requires full-time presence. The envisaged starting date is February, March, or April 1st, 2014 (will be discussed in more detail in the interview).

To apply

Please send your application to:

Dr. Jochen Jaeger
 Concordia University
 Department of Geography, Planning and Environment
 1455 de Maisonneuve Blvd. W., Suite H1255
 Montréal, Quebec, Canada H3G 1M8

or by email: [jochen.jaeger @ concordia.ca](mailto:jochen.jaeger@concordia.ca)

Please include in your application your CV, your transcripts (copies of university certificates, indicating all taken courses and grades), copies of publications, two (or more) academic letters of recommendation (including phone number and email addresses), and a letter of interest that describes your background and your motivation for working on this project. Applications are welcome as soon as possible. Deadline for application is January 10, but please send your application as early as possible, so we can start with interviews early. The position remains open until filled, and applications will be evaluated on an ongoing basis until the position is filled.

References cited:

Bédard, Y., É. Alain, Y. Leblanc, M.-A. Poulin, M. Morin (2012) : Conception et suivi des passages à petite faune sous la route 175 dans la réserve faunique des Laurentides. *Le Naturaliste Canadien* 136(2) : 66-71.

