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The National Museum of Natural History recruits: a scientific officer in charge "Systematic Review on Biodiversity and Linear Transport Infrastructures"

JOB DESCRIPTION

Institution: National Museum of Natural History
Unity: UMS PatriNat
Location: Jardin des plantes, Paris (75)
Function: Systematic review officer

PREAMBLE

Formerly the Natural Heritage Service, UMS PatriNat - supported by the National Museum of Natural History (MNHN), the French Agency for Biodiversity (AFB) and the National Center for Scientific Research (CNRS) - produces a scientific and technical expertise on biodiversity.

It is currently conducting, with several partners, a systematic review (see at the end for more information about systematic reviews) on transport infrastructure verges and biodiversity, through the COHNECS-IT project (for more information: http://www.cohnecsit.mnhn.fr/). This project is in response to a call launched by the CILB (group of transport infrastructure managers), the Ministry of Ecology (through the ITTECOP program) and the Foundation for Research on Biodiversity.

The objective of COHNECS-IT is to focus on the role that linear transport infrastructures can potentially have as habitat or corridor for biodiversity and to contextualize this role (depending on the surrounding landscape, the taxa...).

A first stage of the project ran from January 2015 to September 2017. During this period, the systematic review protocol[1] was published and a large part of the bibliographic corpus was analyzed. A systematic review was published on insects[2]. Now, a scientific officer is required to deal with other taxa (flora, vertebrates) and to finalize this project, with the publication of a second systematic review.

[1] Jeusset *et al.* (2016). Can linear transportation infrastructure verges constitute a habitat and/or a corridor for biodiversity in temperate landscapes? A systematic review protocol. *Environmental Evidence Journal 5:5. DOI: 10.1186/s13750-016*-0056-9. Disponible en ligne sur : https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/s13750-016-0056-9

[2] Villemey *et al.* (2017). Can linear transportation infrastructure verges constitute a habitat and/or a corridor for insects in temperate landscapes? A systematic review. Environmental Evidence, The official journal of the Collaboration for Environmental Evidence. 2018, 7:5. https://environmentalevidencejournal.biomedcentral.com/articles/10.1186/s13750-016-0056-9

MISSIONS

The recruited officer will integrate the Ecosystems & Networks team of the UMS PatriNat, under the responsibility of the Team Leader and the Director of the UMS. He will be in strong interaction with the other members of the COHNECS-IT project team ("Review Team") of the UMS (notably the project coordinator), the UMR CESCO (scientific co-supervision) and others partners (notably Irstea, Cerema, Inra).
His work will include:
- Extract publications from a literature base from research equations already formed
- Make a call for literature based on an already established directory of experts
- Sort publications based on already defined criteria
- Conduct a critical analysis of articles based on already defined criteria
- Extract information, both qualitative and quantitative, in publications
- Organize the information banked in spreadsheet (homogenization, grouping by themes...) and synthesize them
- Analyze the feasibility of a meta-analysis and, if necessary, carry it out with possible measures of heterogeneity. For this purpose, the project manager will be assisted by a statistician expert in meta-analyzes.
- Write the systematic review in English and conduct the submission / review process of the publication in the journal "Environmental Evidence Journal"
- Write an executive summary, operational document, in French, for the sponsors, presenting the main results and lessons learned during the two project stages

REQUIRED CONDITIONS

> Expected candidatures:

PhD in the field of ecology or related fields. Candidatures from Master II level with significant experience in the field of ecology, preferably in research, will also be accepted.

> Skills and qualities required:

- Very good knowledge of protocols in landscape ecology (study designs, robustness criteria...)
- Practice in data analysis (tests, models ...), diversity indices and knowledge of meta-analyzes
- Fluent in French and mastery of scientific writing in English
- Writing skills, synthesis skills and taste for the work of analysis and reflection
- Autonomy, while being able to work in a team
- Mastery of the basic office programs (Word, Excel, Dropbox, Googledoc), as well as useful tools for the realization of a systematic review and a meta-analysis: bibliographic management software (ex: Zotero) and software R.

The following points will be considered as advantages for the candidate:
- Having already done a meta-analysis
- Having followed a training, or having already participated in a systematic review or, failing that, in a “classic” bibliographic synthesis
- Knowing the scientific and operational issues around the theme of connectivity, ecological corridors, green and blue frame, ideally related to linear transport infrastructure

RECRUITING MODALITIES

Contract term: Public-law fixed-term contract
Contract period: 12 months
Remuneration: Depending on the candidate's profile and experience
Date of starting office: Summer 2018

RECRUITMENT PROCEDURE

Please send your candidature by email before 2018/05/21 at midnight to recrutementspn@mnhn.fr

An application will include a detailed curriculum vitae and a cover letter.

For any questions about the job, you can contact:
- Julien Touroult, Director of the UMS, julien.touroult@mnhn.fr, +33 1.60.79.32.57
- Romain Sordello, Project Manager in Systematic Reviews at the UMS, romain.sordello@mnhn.fr, +33 1.40.79.39.49

Systematic reviews

The systematic review is a standardized method for carrying out bibliographic summaries with an ambition of rigor, transparency, objectivity and completeness. It is a knowledge transfer tool from research to operational actors to answer a question asked. Initially developed in the medical field, systematic reviews are currently in full swing in the environmental field in the context of increasing erosion of biodiversity. The method is proposed by the Collaboration for Environmental Evidence (http://www.environmentalevidence.org/) and the journals - as well as their protocol - are published in the affiliated newspaper "Environmental Evidence Journal" (https://environmentalevidencejournal.biomedcentral.com/).

Useful links :
- http://www.fondationbiodiversite.fr/fr/societe/avec-la-societe/appui-a-la-decision/syntheses-de-connaissances/revues-systematiques.html
- https://hal.archives-ouvertes.fr/hal-01614431
- http://www.strategie.gouv.fr/sites/strategie.gouv.fr/files/atoms/files/180226_-_sordello_et_al_revues_syst_france_strategie.pdf