

*** 1st position*** **Postdoctoral researcher** in functional morphology and paleobiology Project title: Morphological convergence and functional inferences: an integrative study of the masticatory apparatus in rodents and extinct notoungulates. Supervisors: Guillaume Billet (UMR7207; billet@mnhn.fr), Anthony Herrel (UMR7179; anthony.h.errel@mnhn.fr) and Raphaël Cornette (UMR7205; cornette@mnhn.fr). Location: Muséum National d'Histoire Naturelle, Paris, France Salary: 2500Euro/month (dès 2000 Euro net) depending on experience. We are looking for a postdoctoral researcher in functional morphology and paleontology to work on a project investigating a typical case-study of repeated morphological convergence in the masticatory apparatus of mammals. The project focuses on the rich mosaic of resemblances found in several groups of extant rodents and extinct notoungulates. The postdoctoral researcher will quantify the shape of the masticatory apparatus and identify areas of mechanical constraints based on 3D models and using geometric morphometric and finite element approaches. Moreover, the postdoctoral researcher will evaluate the main chewing directions by examining dental microwear patterns and will use in-vivo cineradiographic studies in order to characterize the kinematics associated with variation in muzzle shape in selected extant rodents. The goal of this project is to integrate these results within a comprehensive framework in order to characterize the convergence observed in the masticatory apparatus of rodents and notoungulates, and to provide more robust functional inferences for the latter. Expertise in the anatomy and functional analysis of the masticatory apparatus and solid knowledge of its evolution within mammals are requirements for the position. Experience with geometric morphometric methods and the interpretation of fossil material is considered as an additional plus for the project. Candidates should send (1) a letter of motivation, (2) a full CV, and (3) two letters of recommendation to the following e-mail address:

billet@mnhn.fr

DEADLINE to send your application: March 16, 2015.

Please contact Guillaume BILLET, or any of the other supervisors for additional information.

-- Anthony Herrel Associate Editor Herpetological Journal, The European Journal of Anatomy & Functional Ecology Branch Editor Functional anatomy of amphibians and reptiles Zookeys Editorial board member J. Zoology & Zoology UMR 7179 C.N.R.S/M.N.H.N. Département d'Ecologie et de Gestion de la Biodiversité, 55 rue Buffon, Bat Anatomie Comparee, CP 55, 75005, Paris Cedex 5, France e-mail: anthony.herrel@mnhn.fr

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*** 2nd position*** **Postdoctoral researcher** in evolutionary functional morphology

Project title: Form-function relationships and the evolution of arboreal locomotion in mammals

Supervisors: Anthony Herrel (UMR7179;

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), Marc Herbin (UMR7179;

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), Raphaël Cornette (UMR7205;

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) and Stéphane Peigné (UMR7207;

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). Location: Muséum National d'Histoire Naturelle, Paris, France Salary:

€2500 Euro/month (€ 2000 Euro net) funded by the LabEx BCDiv. Salary will vary with

experience based on national salary scales defined by the CNRS. We are looking for a

postdoctoral researcher in functional morphology to work on a project investigating the

evolution of arboreal locomotion in mammals. The postdoctoral researcher will quantify the

functionally relevant properties of the musculature of the limbs (muscle mass, physiological

cross sectional area) using specimens from the comparative anatomy collections at the

MNHN. Moreover, the postdoctoral researcher will quantify the shape of limb bones in

arboreal mammals based on 3D surface scans and using geometric morphometric

approaches. One of the goals of this study will be to make better inferences on the locomotor

ecology and life-style in extinct animals. As such the project will focus more specifically on

carnivorans and primates given the presence of well preserved fossil material. Expertise in

geometric morphometrics and experience with dissection are requirements for the position.

Experience with comparative methods and the interpretation of fossil material is considered as

an additional plus for the project. Candidates should send (1) a letter of motivation, (2) a full

CV, and (3) two letters of recommendation to the following e-mail address:

anthony.herrel@mnhn.fr

The deadline for submission of applications is

May 1st, 2015

. Please contact Anthony Herrel, or any of the other supervisors for additional information.

-- Anthony Herrel Associate Editor Herpetological Journal, The European Journal of Anatomy & Functional Ecology Branch Editor Functional anatomy of amphibians and reptiles Zookeys Editorial board member J. Zoology & Zoology UMR 7179 C.N.R.S/M.N.H.N.

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