

Curriculum Vitae of Samuel Ginot

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EDUCATION

01/09/2014-30/09/2017

PhD in Evolutionary Biology, on the morpho-functional variation and evolution of the skull, specifically the masticatory apparatus, of murid rodents.

Université de Montpellier, Institut des Sciences de l'Evolution (ISE-M), supervisors: Julien Claude and Lionel Hautier.

Defended 30/11/2017 with the following jury members:

Julien CLAUDE, Université de Montpellier

Anthony HERREL, Museum National d'Histoire Naturelle, Paris

Alexandra HOUSSAYE, Museum National d'Histoire Naturelle, Paris

Leandro MONTEIRO, Universidade Estadual do Norte Fluminense, Rio de Janeiro

Sabrina RENAUD (president), Laboratoire de Biométrie et Biologie Évolutive, Lyon

01/09/2012-30/06/2014

Master's degree in Palaeontology, 1st year: Université de Poitiers, IPHEP; 2nd year: Université de Montpellier, ISE-M.

01/09/2009-30/06/2012

Bachelor's degree, 1st-2nd year: Université de Montpellier, Natural Sciences Department; 3rd year: University of Bristol, UK (Erasmus exchange student), Palaeobiology Programme.

PROFESSIONAL APPOINTMENTS

08/01/2018-present

Post-doctoral researcher, at the Institut de Génomique Fonctionnelle de Lyon CNRS, ENS Lyon. Complementary teaching mission at the Université Claude Bernard Lyon 1.

01/09/2014-30/06/2017

Teaching Assistant, Department of Earth Sciences, Université de Montpellier.

01/01/2014-30/06/2014

Six months research internship at the ISE-M on rodent post-cranial anatomy, advisors: Monique Vianey-Liaud, Lionel Hautier, Laurent Marivaux.

TEACHING EXPERIENCE

13/11/2018-06/12/18

Undergraduate level courses in vertebrate comparative anatomy and dissection (mice). Total of 21 hours.

01/09/2014-30/06/2017

Undergraduate level courses in palaeontology and geology (including fieldwork); Master's level practical courses in biostatistics with R. Total of 192 hours.

FIELDWORK EXPERIENCE

02/2015 and 03/2016

Two field trips in Thailand, capture, manipulation (bite force measurements...) and dissection of wild rodents, as part of the CERoPath project (Community Ecology of Rodents and their Pathogens in South-East Asia).

06/2016

Supervision of a one-week rodent capture and marking session in the Zoo de Lunaret in Montpellier, as part of the wildlife assessment inside the park.

07/2013

Archaeological excavation in Lattes (Hérault, France)

06/2011

Two-weeks ecology/entomology field work in Wales with the University of Bristol.

SKILLS

Live animals.

During my various field and labworks, I have practiced small mammal capture, marking, manipulation, bite force measuring, euthanasia, dissection, in the field and in the laboratory.

Animal care, pedigree monitoring.

Starting from 2014, and in the framework of my PhD, I have been working at the CECEMA animal housing facility of the Université de Montpellier. I also successfully completed the 8-days course "Animal Experimentation Level 2".

Morphological studies.

Various methods including comparative anatomy, geometric and classical morphometrics, CT scanning, iodine staining methods, 3D segmentation, muscular forces modelling through physiological cross-sections.

Software.

Advanced knowledge of the R language and environment and Avizo (successfully completed the 2-days course "Advanced Avizo Training"). Basic knowledge of Python, PAUP* and Fiji.

Languages.

French - mother tongue / English - very good command / Spanish - basic knowledge.

Miscellaneous.

Driver's license / rock climbing and mountaineering / sailing.

SCHOLARSHIPS

01/09/2014-30/09/2017

GAIA Doctoral School (Université de Montpellier), full Doctoral Scholarship.

PUBLICATIONS & PRESENTATIONS

Published or Accepted manuscripts

- Ginot S.**, Herrel A., Claude J., Hautier L. (2019). Morphometric models for estimating bite force in *Mus* and *Rattus*: mandible shape and size do better than lever-arm ratios. *Journal of Experimental Biology*, 222 (12). DOI:10.1242/jeb.204867
- Ginot S.**, Goudemand N. (2019). Conodont size, trophic level and the evolution of platform elements. *Paleobiology*, 45 (3), 458-468. DOI: 10.1017/pab.2019.19
- Boivin M., **Ginot S.**, Marivaux L., Altamirano-Sierra A., Pujos F., Salas-Gismondi R., Tejada-Lara J., Antoine P.-O. (2019). Tarsal morphology and locomotor adaptation of some late middle Eocene caviomorph rodents from Peruvian Amazonia reveal early ecological diversity. *Journal of Vertebrate Paleontology*, 38 (6), e1555164. DOI: 10.1080/02724634.2018.1555164.
- Renaud S., Ledevin R., Souquet L., Gomes Rodrigues H., **Ginot S.**, Agret S., Claude J., Herrel A., Hautier L. (2018). Evolving teeth within a stable masticatory apparatus in Orkney mice. *Evolutionary Biology*, 45 (4), 405-424. <https://doi.org/10.1007/s11692-018-9459-6>.
- Ginot S.**, Claude J., Hautier L. (2018). One skull to rule them all? Descriptive and comparative anatomy of the masticatory apparatus in five mouse species. *Journal of Morphology*, 279 (9), 1234-1255. DOI: 10.1002/jmor.20845.
- Ginot S.**, Agret S., Claude J. (2018). Bite force performance, fluctuating asymmetry and antisymmetry in the mandible of inbred and outbred wild-derived strains of mice (*Mus musculus domesticus*). *Evolutionary Biology*, 45 (3), 287-302.
- Ginot S.**, Le Noene C. & Cassaing J. (2018). Comparative bite force in two syntopic murids (Rodentia) suggests lack of competition for food resources. *Canadian Journal of Zoology*, 96 (6), 633-638.
- Ginot S.**, Herrel A., Claude J. & Hautier L. (2018). Skull size and biomechanics are good estimators of *in vivo* bite force in murid rodents. *The Anatomical Record*, 301 (2), 256–266.
- Ginot S.**, Claude J., Perez J. & Veyrunes F. (2017). Sex reversal induces size and performance differences among females of the African pygmy mouse *Mus minutoides*. *Journal of Experimental Biology*, 220 (11), 1947-1951.
- Ginot S.**, Hautier L., Marivaux L. & Vianey-Liaud M. (2016). Ecomorphological analysis of the astragalo-calcaneal complex in rodents and inferences of locomotor behaviours in extinct rodent species. *PeerJ*, 4, e2393.

Presentations & posters

- Ginot S.**, Goudemand N. Large-scale study of ecomorphological trends in conodonts. Poster presented at the 5th International Palaeontological Congress. Paris, France. July 2018.

- Ginot S.**, Agret S., Claude J. Bite force performance, fluctuating asymmetry and antisymmetry in the mandible of inbred and outbred wild-derived strains of mice (*Mus musculus domesticus*). Presented at the 10th Symposium National de Morphométrie et Evolution des Formes. Bordeaux, France. June 2018.
- Ginot S.**, Herrel A., Claude J. & Hautier L. Skull size and biomechanics predict bite force in Murid rodents. Poster presented at the 4th YNHM (Paris, 2017).
- Ginot S.**, Hautier L., Herrel A. & Claude J. Morphometric models for estimating bite force in murid rodents: empirical versus analytical models. Presented at the International Congress of Vertebrate Morphology. Washington DC, US. June/July 2016.
- Ginot S.**, Hautier L., Claude J. & Veyrunes F. Force de morsure, morphologie crânienne et comportement chez la souris pygmée africaine *M. minutoides*. Presented at the Symposium National de Morphométrie et Evolution des Formes. Paris, France. June 2016.
- Claude J., Agret S. & **Ginot S.** Identification morphométrique des souris du sous genre *Mus* spp. en Thaïlande. Presented at the Symposium National de Morphométrie et Evolution des Formes. Paris, France. June 2016.

PRICES & AWARDS

Best poster presentation award in the "Methods" section of the 4th YNHM (Paris, 2017) for the poster entitled "*Skull size and biomechanics predict bite force in Murid rodents*".

REVIEWS

Total of twelve paper reviewed in six international scientific journals:

- Biological Journal of the Linnean Society,
- Journal of Anatomy,
- Journal of Morphology,
- The Anatomical Record,
- Zoological Journal of the Linnean Society,
- Zootaxa.