Dr Anne-Claire Fabre

fabreac@gmail.com https://anne-claire-fabre.weebly.com/

RESEARCH ACTIVITY AND INTERESTS

I am an evolutionary biologist and functional morphologist focusing on shape evolution in an ecological context across vertebrate systems. My research on micro- and macro-evolution integrates a wide range of biological disciplines. I aim to understand the evolution of morphology in space and time in relation to its development, function, ecology, behaviour, and changes in the environment. To do so, I integrate cross-disciplinary approaches such as functional morphology, evolutionary biology, behaviour, imaging, geometric morphometrics, biomechanics, phylogenetic comparative analyses, and spatial modelling on large comparative datasets coupled to the quantification of ecology (ex. diet, habitat use) of animals in their natural environment.

EDUCATION

Ph.D.	University College London	Evolutionary Biology	February 2014
Doctorat Paris Diderot		Evolutionary Biology	September 2013
M.S.	Université Paris Diderot	Evolutionary Biology	June 2010
M.S.	Université Pierre et Marie Curie	Evolutionary Biology	June 2008
B.S.	Université Montpellier II	Biology & Geological Sciences	June 2006

PROFESSIONAL HISTORY

2022 – now: **Curator of mammals**, NMBE and **ERC Starting Grant Assistant Professor with habilitation**, Universität Bern, Switzerland.

2021 –2022: Marie-Skłodowska Curie Fellow (EU EF project 101028747 -META-MORPHOSIS),

Museum für Naturkunde (MfN, Berlin, Germany. Advisor: Prof. Nadia Fröbisch

2020-2021: Postdoctoral researcher, Paläontologisches Institut und Museum, Zurich, Switzerland.

Supervisor: Prof. Marcelo Sánchez

2018 –2020: **Research Co-Investigator**, Natural History Museum (NHM), Department of Life

Sciences, London, UK. Advisor: Prof. Anjali Goswami

2016 – 2018: Marie-Skłodowska Curie Fellow (EU RI project 655694 -GETAGRIP), Muséum National d'Histoire Naturelle (MNHN), Département Adaptations du Vivant, Paris, France. Advisors: Dr. Anthony Herrel

2014 –2016: **Fondation Fyssen Fellow**, Duke University, Department of Evolutionary Anthropology, Durham, USA. Advisor: Prof. Christine Wall

FELLOWSHIPS AND GRANTS (Total > 3.000.000CHF)

- SNSF Swiss Postdoctoral Fellowships (Grant Number 217022; BE-BOST), 2023: 253,472 CHF;
 PI, co-PI F. Alfieri and D. Field
- Paleontological Fieldwork Departament de Cultura, Generalitat de Catalunya (CLT 2022 EXP ARQ001SOLC 00000197), 2022: 62,693.63€, co-PI
- ERC Starting Grant, LS8, ERC-2021-STG META-MORPHOSIS SERI-funded (M822.00039), 2022:
 1.657.710 CHF, PI
- Ramon y Cajal fellowship, RYC2020-030074-I, 2021: >477,200€, PI, declined
- Marie-Skłodowska Curie fellowship EF, 2021-2023: 162,806€, PI
- Spanish Government, PID2020-116908GB-I00, 2021-2025: 181,500€, co-PI
- Marie-Skłodowska Curie fellowship RI, 2016-2018: 173,000€, PI
- Fondation Fyssen fellowship, 2014-2016: 50,000€, PI
- Centre National de la Recherche Scientifique doctoral training fellowship, 2010-2013 :
 30,000€, PI

- University College London Impact Grant fellowship, 2010-2013: £30,000, PI
- Labex CEBA: Diversification of an ancient Guiana Shield lineage of fossorial frogs 2018:
 11,140€, co-PI
- Action Transversale Museum, 2018 : 3,000€, PI
- Labex BcDiv "Adaptation du système musculaire au milieu arboricole chez les mammifères Carnivora » : 3,486€, PI
- Labex BcDiv "Diversification phénotypique des Eupleridae (Mammalia, Carnivora), famille endémique de Madagascar » : 3,486€, PI
- Travel grant of the Fondation Bettencourt-Schueller, 2010-2014: 3,000€, PI

AWARDS

Marie Sklodowska-Curie Actions Seal of Excellence 2018 Marie Sklodowska-Curie Actions Seal of Excellence 2017

TEACHING AND KNOWLEDGE TRANSFER

- 418300-FS2023-0: **Biogeography, lecture**, University of Bern, Bern, Switzerland. I taught **three hours** on the Biogeography of mammals and niche modelling. **2023**
- 100308-FS2023-0: **Journal club systematics, seminar**, University of Bern, Bern, Switzerland. **26-hours**. In the Journal Club Systematics, we discuss recent publications related to systematics of different groups of metazoan animals as well as methods of phylogenetic reconstruction including morphological, functional morphological and molecular genetic techniques. The participating students have to present in groups of 2 a set of papers presenting a view and a counter-view on a scientific question. **2022-2023**
- **HerpTalks 2022**, Universiteit Antwerpen, Antwerp, Belgium, **1-hour** mini course on Identifying how life cycle variation drives morphological and functional diversity in salamanders, **2022**
- **BIO 262** Zurich University, Zurich, Switzerland. I taught theoretical courses and practical during **three** days on morphological evolution. I designed both, the course and practical. **2020**
- **BIO 267** Zurich University, Zurich, Switzerland. I supervised **three hours** of presentation and discussion of 18 recent publications by students in the module "Paleobiology and Evolution of Vertebrates", **2020**.
- **BIO 266** Zurich University, Zurich, Switzerland. One-hour mini course on paleoichnology and dinosaur tracks in Switzerland in the module "Fieldwork in European Palaeontology and Natural History Museums", **2020**.
- **BIOL0808-2** University of Liège, Belgium. **Two-hour** mini course on the functional morphology of the forelimb in the module "Morphologie fonctionnelle", **2019.**
- **PALE0209** University of Liège, Belgium. **Two-hour** mini course on how to use in vivo data to reconstruct the paleoecology of extinct species in the module "Paléontologie animale", **2019**.
- Ecole doctorale du Museum National d'Histoire Naturelle, Paris, France. A one-day course and training on surface geometric morphometrics in the module "Morphométrie et analyses des formes", co-organiser, 2010-2013

GEOL3036 University College London, London, the United Kingdom, five-hour mini course on how to use comparative analyses with geometric morphometric data in the module "Biodiversity and Macroevolutionary Patterns", **2012**

PUBLICATIONS IN INTERNATIONAL PEER-REVIEWED SCIENTIFIC JOURNALS (67)

Metrics: H-index Google Scholar: 28 (2233 citations)

30 publications as first author and as senior or corresponding author (bold and underlined)

24 publications with my students and postdocs (*)

45 publications without my PhD advisor

- Publications resulting from my PhD and prior (9)
- 1. Herrel A, **Fabre A-C**, Hugot J-P, Keovichit K, Adriaens D, Van Hoorebeke L, Cornette R (2012) Ontogeny of the cranial system in *Laonastes aenigmamus*. *Journal of Anatomy* 221: 128-137. Citations = 17

I performed part of the data acquisition, the analyses and wrote the corresponding parts of the paper.

 Genise JF, Garrouste R, Nel P, Grandcolas P, Maurizot P, Cluzel D, Cornette R, Fabre A-C, Nel A (2012) <u>Asthenopodichnium</u> in fossil wood: different trace makers as indicators of <u>different terrestrial palaeoenvironments.</u> <u>Palaeogeography, Palaeoclimatology,</u> <u>Palaeoecology</u> 365-366: 184-191. Citations = 31

I performed part of the data acquisition, the analyses and wrote the corresponding parts of the paper.

3. <u>Fabre A-C</u>, Cornette R, Peigné S, Goswami A (2013) <u>Influence of body mass on the shape of forelimb in musteloid carnivorans.</u> *Biological Journal of the Linnean Society* 110: 91-103. Citations = 51

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

- 4. <u>Fabre A-C</u>, Cornette R, Slater G, Argot C, Peigné S, Goswami A, Pouydebat E (2013) Getting a grip on the evolution of grasping in musteloid carnivorans: a three-dimensional analysis of forelimb shape. Journal of Evolutionary Biology 26: 1521-1535. Citations = 80 I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.
- 5. Polly PD, Lawing AM, **Fabre A-C**, Goswami A (2013) <u>Phylogenetic principal components analysis and geometric morphometrics</u>. *Hystrix* 24(1): 1-9. Citations = 144

 I performed the entire acquisition of the data, did part of the analyses, and wrote the corresponding parts of the paper.
- 6. <u>Fabre A-C</u>, Cornette R, Perrard A, Boyer D, Prasad GVP, Hooker JJ, Goswami A (2014) <u>A</u> three-dimensional morphometric analysis of the locomotory ecology of <u>Deccanolestes</u>, a <u>eutherian mammal from the late Cretaceous of India.</u> Journal of Vertebrate Paleontology 34: 146-156. Citations = 11

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

7. <u>Fabre A-C</u>, Goswami A, Peigné S, Cornette R (2014) <u>Morphological integration in the forelimb of musteloid carnivorans.</u> *Journal of Anatomy* 225: 19-30. Citations = 58 *I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.*

- 8. <u>Fabre A-C</u>, Cornette R, Goswami A, Peigné S (2015) <u>Do constraints associated with the locomotor habitat drive the evolution of forelimb shape? A case study in musteloid carnivorans. *Journal of Anatomy* 226: 596-610. Citations = 86

 I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.</u>
- 9. <u>Fabre A-C</u>, Salesa MJ, Cornette R, Antón M, Morales J, Peigné S (2015) <u>Quantitative</u> inferences on the locomotor behaviour of extinct species applied to <u>Simocyon batalleri</u> (<u>Ailuridae</u>, <u>Late Miocene</u>, <u>Spain</u>). <u>Science of Nature 102</u>: 30. Citations = 28

 I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.
 - Publications resulting from my postdoctoral fellowships (58)
- 10. <u>Fabre A-C</u>, Cornette R, Huyghe K, Andrade DV, Herrel A (2014) <u>Linear versus</u> morphometric approaches for the analysis of head shape dimorphism in lizards. *Journal of Morphology* 275: 1016-1026. Citations = 48

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

- 11. Robovska-Havelkova P, Aerts P, Rocek Z, Prikryl T, **Fabre A-C**, Herrel A (2014) <u>Do all frogs swim alike? The effect of ecological specialization on swimming kinematics in frogs.</u> *Journal of Experimental Biology* 217: 3637-3644. Citations = 16 *I performed part of the analyses and wrote the corresponding parts of the paper.*
- 12. <u>Fabre A-C</u>, Andrade DV, Huyghe K, Cornette R, Herrel A (2014) <u>Interrelationships</u> between bones, muscles, and performance: biting in the lizard <u>Tupinambis merianae</u>. *Evolutionary Biology* 41: 518-527. Citations = 22

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

13. Botton-Divet L, Houssaye A, Herrel A, **Fabre A-C**, Cornette R (2015) <u>Tools for quantitative</u> form description; an evaluation of different software packages for semi-landmark <u>analysis</u>. *PeerJ* 3: e1417. Citations = 35

I performed the acquisition of the data, parts of the analyses, and wrote the corresponding parts of the paper.

14. **Fabre A-C**, Bickford D, Segall M, Herrel A (2016) The impact of diet, habitat use, and behavior on head shape evolution in homalopsid snakes. *Biological Journal of the Linnean Society* 118: 634-647. Citations = 55

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

15. Dumont M, Wall CE, Botton-Divet L, Goswami A, Peigné S, <u>Fabre A-C</u> (2016) <u>Dofunctional demands associated with locomotor habitat, diet, and activity pattern drive skull shape evolution in musteloid carnivorans? *Biological Journal of the Linnean Society* 117: 858-878. Citations = 63</u>

I conceived the study, performed part of the acquisition of the data, did all the analyses, and wrote the paper.

16. Granatosky MC, Tripp CH, **Fabre A-C**, Schmitt D (2016) <u>Patterns of quadrupedal locomotion in a vertical clinging and leaping primate (*Propithecus coquereli*) with implications for understanding the functional demands of primate quadrupedal locomotion. *American Journal of Physical Anthropology* 160: 644-652. Citations = 28</u>

I participated in the acquisition of the data, did parts of the analyses and wrote the corresponding parts of the paper.

17. Segall M, Cornette R, **Fabre A-C**, Godoy-Diana R, Herrel A (2016) <u>Does aquatic foraging impact head shape evolution in snakes?</u> *Proceedings of the Royal Society B* 283: 20161645. Citations = 47

I participated in the acquisition of the data, did parts of the analyses, and wrote the corresponding parts of the paper.

- 18. Peckre L, <u>Fabre A-C*</u>, Wall CE, Brewer D, Ehmke E, Haring D, Shaw E, Welser K, Pouydebat E (2016) <u>Holding-on: co-evolution between infant carrying and grasping behaviour in strepsirrhines.</u> Scientific Reports 6: 37729. Citations = 23 I conceived the study, I performed the entire acquisition of the data, did parts of the analyses and cowrote the paper with my student.
- 19. Botton-Divet L, Cornette R, **Fabre A-C**, Herrel A, Houssaye A (2016) <u>Morphological analysis of long bones in semi-aquatic mustelids and their terrestrial relatives.</u> *Integrative and Comparative Biology* 56: 1298-1309. Citations = 58 *I performed part of the acquisition of the data, did parts of the analyses, and wrote the corresponding parts of the paper.*
- 20. Dollion A, Measy GJ, Cornette R, Carne L, Tolley K, da Silva J, Boistel R, **Fabre A-C**, Herrel A (2017) <u>Does diet drive the evolution of head shape and bite force in chameleons of the genus *Bradypodion? Functional Ecology* 31: 671-684. Citations = 38

 I performed all the geometric morphometric analyses and wrote the corresponding parts of the paper.</u>
- 21. Botton-Divet L, Cornette R, Houssaye A, **Fabre A-C**, Herrel A (2017) <u>Swimming and running</u>, a study of the convergences in long bone morphology among semi-aquatic <u>mustelids (Carnivora: Mustelidae)</u>. *Biological Journal of the Linnean Society* 121: 38-49. Citations = 27

I performed part of the acquisition of the data and wrote the corresponding parts of the paper.

22. <u>Fabre A-C</u>, Marigó J, Granatosky MC, Schmitt D (2017) <u>Functional associations between</u> support use and forelimb shape in strepsirrhines and their relevance to inferring <u>locomotor behavior in early primates</u>. *Journal of Human Evolution* 108: 11-30. Citations = 27

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

23. Manzano A, Herrel A, **Fabre A-C**, Abdala V (2017) <u>Variation in brain anatomy in frogs and its possible bearing on their locomotor ecology. *Journal of Anatomy* 231: 38-58. Citations = 20</u>

I performed the statistical analyses and wrote the corresponding parts of the paper.

24. Abourachid A, **Fabre A-C**, Cornette R, Hofling E (2017) <u>Foot shape in arboreal birds: two morphological patterns for the same pincer-like tool.</u> *Journal of Anatomy* 231: 1-11. Citations = 13

I performed the geometric morphometric analyses and the corresponding parts of the paper.

25. Da Silva FO, **Fabre A-C**, Savriama Y, Ollonen J, Mahlow K, Herrel A, Müller J and N Di-Poï (2018) The ecological origins of snake as revealed by skull evolution. *Nature Communication* 9: 376. Citations = 99

I performed the analyses and wrote the corresponding parts of the paper.

26. Böhmer C, **Fabre A-C**, Herbin M, Peigné S, Herrel A (2018) <u>Anatomical basis of differences in locomotor behavior in martens: a comparison of the forelimb musculature between two sympatric species of Martes.</u> *The Anatomical Record* 301: 449-472. Citations = 22

I performed part of the data acquisition, the analyses and wrote the corresponding parts of the paper.

27. <u>Fabre A-C*</u>, Perry JMG, Harstone-Rose A, Lowie A, Boens A, Dumont M (2018) <u>Domuscles constrain skull shape evolution in Strepsirrhines? *The Anatomical Record* 301: 291-310. Citations = 34</u>

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

- 28. Botton-Divet L, Houssaye A, A Herrel, **Fabre A-C**, Cornette R (2018) <u>Swimmers</u>, <u>diggers</u>, <u>climbers and more</u>, a study of integration across the mustelids' locomotor apparatus (<u>Carnivora: Mustelidae</u>). <u>Evolutionary Biology</u> 45: 182-195. Citations = 30

 I performed part of the data acquisition and wrote some parts of the paper.
- 29. Lowie A, Herrel A, Abdala V, Manzano A, <u>Fabre A-C*</u> (2018) <u>Does the morphology of the forelimb flexor muscles differ between lizards using different habitats?</u> *The Anatomical Record* 301: 424-433. Citations = 11

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

- 30. Abdala V, Ponssa ML, Tulli MJ, **Fabre A-C**, Herrel A (2018) <u>Frog tendon structure and its</u> <u>relationship with locomotor modes.</u> *Journal of Morphology* 279: 895-903. Citations = 11 *I realized performed the phylogenetic comparative analyses and wrote the corresponding parts of the paper.*
- 31. Michaud M, Veron G, Peigné S, Blin A, <u>Fabre A-C*</u> (2018) <u>Are phenotypic disparity and the rate of morphological evolution correlated with ecological diversity in Carnivora?</u>

 Biological Journal of the Linnean Society 124: 294-307. Citations = 16

 I conceived the study, performed part of the data acquisition, all the analyses and co-wrote the paper.
- 32. Donihue CM, Herrel A, **Fabre A-C**, Kamath A, Geneva AJ, Schoener TW, Kolbe JJ and JB Losos (2018) <u>Hurricane-induced selection on the morphology of an island lizard</u>. *Nature* 560: 88-92. Citations = 117

I performed part of the acquisition of the data, participated in field work and wrote some parts of the paper.

33. <u>Fabre A-C</u>, Granatosky MC, Hanna JB and D Schmitt (2018) <u>Do forelimb shape and peak</u> forces co-vary in strepsirhinnes? *American Journal of Physical Anthropology* 167: 602-614. Citations = 9

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

34. Taverne M, <u>Fabre A-C*</u>, Herbin M, Herrel A, Lacroux C, Lowie A, Pagès F, Peigné S, Theil J-C and C Bohmer (2019) <u>Convergence in the functional properties of forelimb muscles in carnivorans: adaptations to an arboreal life-style?</u> <u>Biological Journal of the Linnean Society 125: 250-263. Citations = 23</u>

I conceived the study, performed part of the data acquisition, all the analyses and co-wrote the paper with my student.

35. <u>Fabre A-C*</u>, Peckre L, Pouydebat E and C Wall (2019) <u>Does the shape of the forelimb</u> <u>long bones covary with grasping behaviour in strepsirrhine primates?</u> *Biological Journal of the Linnean Society* 127: 649-660. Citations = 10

I conceived the study, performed the entire data acquisition, analysed the data, and wrote the paper.

36. Peckre L, <u>Fabre A-C*</u>, Hambucker J, Wall CW and E Pouydebat (2019) <u>Food properties</u> influence grasping strategies in strepsirrhines. *Biological Journal of the Linnean Society* 127: 583-597. Citations = 9

I conceived the study, I performed the entire data acquisition, did part of the analyses, and co-wrote the paper with my student.

37. Böhmer C, **Fabre A-C***, Taverne M, Herbin M, Peigné S and A Herrel (2019) <u>Functional relationship between myology and ecology in carnivores: forelimb muscles reflect adaptation to prehensility.</u> *Biological Journal of the Linnean Society* 127: 661-680. Citations = 18

I conceived the study, I performed part of the data acquisition of the data, all the analyses and wrote parts of the paper.

- 38. Abourachid A, Herrel A, Decamps T, Pagès F, **Fabre A-C***, Van Hoorebeke L, Adriaens D and MA Garcia Amado (2019) <u>Locomotion in Hoatzin nestlings: a new quadrupedal coordination for birds.</u> Science Advances 5: eaat0787. Citations = 11

 I helped acquire the data in the field and wrote some parts of the paper.
- 39. Watanabe A, **Fabre A-C**, Felice RN, Maisano JA, Müller J, Herrel A and A Goswami (2019) <u>Ecomorphological diversification in squamates from conserved pattern of cranial</u>
 <u>integration</u>. *Proceedings of the National Academy of Sciences* USA 116: 14688-14697.
 Citations = 98

I performed parts of analyses and wrote some parts of the paper.

40. Pafilis P, Herrel A, Kapsalas G, Vasilopoulou-Kampitsi M, **Fabre A-C**, Foufopoulos J and CM Donihue (2019) <u>Habitat shapes the thermoregulation in Mediterranean lizards introduced to replicates experimental islets.</u> *Journal of Thermal Biology* 84: 368-374. Citations = 5

I participated in the field work, helped with the data acquisition, and wrote some parts of the paper.

41. Wölfer J, Amson E, Arnold P, Botton-Divet L, **Fabre A-C**, van Heteren A and J Nyakatura (2019) <u>Femoral morphology of sciuromorph rodents in light of scaling and locomotor ecology</u>. *Journal of Anatomy* 234: 731-747. Citations = 15

I taught and advised the student on geometric morphometrics and comparative analyses, I wrote parts of the paper.

- 42. Peckre LR, Lowie A, Brewer D, Ehmke E, Welser K, Shaw E, Wall C, Pouydebat E and Fabre A-C* (2019) Food mobility and the evolution of grasping behaviour: a case study in strepsirrhine primates. Journal of Experimental Biology 222: jeb207688. Citations = 4 I conceived the study, I performed the entire data acquisition, did part of the analyses, and co-wrote the paper with my student.
- 43. Goswami A, Watanabe A, Felice RN, Bardua C, **Fabre A-C** and D Polly **(2019)** <u>High-density morphometric analysis of shape and integration: the good, the bad, and the not-really-a-problem.</u> *Integrative and Comparative Biology* icz120. Citations = 63

I help to the interpret the results of the analyses and wrote some parts of the paper.

44. Bardua C, Felice RN, Watanabe A, **Fabre A-C** and A Goswami **(2019)** <u>A practical guide to surface sliding semi-landmarks in morphometric analyses.</u> *Integrative Organismal Biology* doi:10.1093/iob/obz016. Citations = 70

I performed part of the data acquisition, did a part of the analyses, and wrote some parts of the paper.

- 45. Taverne M, **Fabre A-C**, King-Gillies N, Krajnović M, Lisičić D, Martin L; Michal L, Petricioli D, Stambuk A, Tadić Z, Vigliotti C, Wehrle B and A Herrel (2019) <u>Diet variability among insular populations of Podarcis lizards reveals diverse strategies to face resource-limited environments.</u> Ecology and Evolution 9: 12408-12420. Citations = 14

 I participated in the field work, performed part of the data acquisition, helped with analyses, and wrote some parts of the paper.
- 46. Pagès F, <u>Fabre A-C*</u> and Abourachid A (2019) <u>Does bone preparation impact its shape:</u> consequences for comparative analyses of bone shape. *PeerJ 7: e7932.* Citations = 1 *I performed part of the analyses and co-wrote the paper with my PhD student.*
- 47. Salesa MJ, Siliceo G, Anton M, **Fabre A-C** and JF Pastor (2020) <u>Functional inferences on the long bones of *Ischyrictis zibethoides* (Blainville, 1841) (Carnivora, Mustelidae) from the middle Miocene locality of Sansan (Gers, France). *Geodiversitas* 42:1-16. Memorial to Stéphane Peigné Carnivores (Hyaenodonta and Carnivora) of the Cenozoic. Citations = 3</u>

I performed part of the data acquisition of the data and wrote parts of the paper.

48. Bon M, Bardua C, Goswami A and <u>A-C Fabre*</u> (2020) <u>Cranial integration in the fire salamander, Salamandra salamandra (Caudata: Salamandridae).</u> *Biological Journal of the Linnean Society* 130:178-194. Citations = 12

I conceived the study, I performed a part of the data acquisition, did parts of the analyses and cowrote the paper with my student.

49. Donihue CM, Kowaleski AM, Losos JB, Algard AC, Baeckens S, Buchkowski RW, **Fabre A- C**, Frank HK, Geneva AJ, Reynolds RG, Stroud JT, Velasco JA, Kolbe JJ, Mahler DL and A
Herrel (2020). <u>Hurricane effects on Neotropical lizards span geographic and phylogenetic scales</u>. *Proceedings of the National Academy of Sciences* USA 117:10429-10434. Citations = 45

I participated in the field work, performed part of the data acquisition, and wrote some parts of the paper.

- 50. Bardua C, <u>Fabre A-C*</u>, Bon M, Das K, Stanley EL, Blackburn DC and A Goswami (2020) <u>Evolutionary integration of the frog cranium</u>. *Evolution* 74:1200-1215. Citations = 23 I performed parts of the analyses and wrote some parts of the paper.
- 51. <u>Fabre A-C*</u>, Bardua C, Bon M, Clavel J, Felice RN, Streicher JW, Bonnel J, Stanley EL, Blackburn DC, and A Goswami (2020) <u>Metamorphosis shapes cranial diversity and rate of evolution in salamanders.</u> *Nature Ecology and Evolution* 4:1129-1140. Citations = 45 *I conceived the study, I performed the entire acquisition of the data, most of the analyses, and wrote the paper.*
- 52. Michaud M., Veron G and <u>A-C Fabre*</u> (2020) <u>Phenotypic integration in feliform</u> carnivores: Covariation patterns and disparity in hypercarnivores versus generalists.

 Evolution 74-12: 2681-2702. Citations = 16

 I conceived the study, performed part of the data acquisition, all the analyses and co-wrote the paper with my PhD student.
- 53. Fouquet A, Leblanc K, Framit M, Réjaud A, Rodrigues MT, Castroviejo-Fisher S, Peloso PLV, Prates I, Manzi S, Suescun U, Baroni S, Moraes LJCL, Recoder R, de Souza SM, Dal Vecchio F, Camacho A, Guellere JM, Rojas-Runjaic FJM, Gagliardi-Urrutia G, de Carvalho VT, Gordo M, Menin M, Kok PJR, Hrbek T, Werneck FP, Crawford AJ, Ron SR, Mueses-Cisneros JJ, Rojas Zamora RR, Pavan D, Simões PI, Ernst R and A-C Fabre* (2021) Species diversity and biogeography of an ancient frog clade from the Guiana Shield (Anura: Microhylidae: Adelastes, Otophryne, Synapturanus) exhibiting spectacular phenotypic diversification. Biological Journal of the Linnean Society 132: 233-256. Citations = 18 I conceived the study, performed part of the data acquisition, all the analyses and co-wrote the paper with my student.
- 54. Fabre A-C*, Dowling C, Portela Miguez R, Fernandez V, Noirault E and A Goswami (2021)

 Functional constraints during development limit jaw shape evolution in marsupials.

 Proceedings of the Royal Society B 288:20210319.

 https://doi.org/10.1098/rspb.2021.0319 Citations = 17

 I conceived the study, I performed the entire acquisition of the data, most of the analyses, and wrote the paper.
- 55. Bardua C, **Fabre A-C***, Clavel J, Bon M, Das K, Stanley EL, Blackburn DC and A. Goswami (2021) <u>Size, microhabitat, and loss of larval feeding drive cranial diversification in frogs. Nature Communications</u> 12:2403. https://doi.org/10.1038/s41467-021-22792-y. Citations = 26

I performed part of the data acquisition, analyses and co-wrote part of the paper.

56. Huntley L, Gower DJ, Sampaio FL, Collins ES, Goswami A and <u>A-C Fabre*</u> (2021)

<u>Intraspecific morphological variation in the shieldtail snake *Rhinophis philippinus* (Serpentes: Uropeltidae), with particular reference to tail-shield and cranial 3D</u>

geometric morphometrics. Journal of Zoological Systematics and Evolutionary Research 59:1357-1370. DOI: 10.1111/jzs.12505. Citations = 2 I conceived the study, performed part of the data acquisition, all the analyses and co-wrote the paper with my PhD student.

- 57. Fouquet A, Leblanc K, **Fabre A-C***, Rodrigues MT, Menin M, Courtois EA, Dewynter M, Hötling M, Ernst R, Peloso PLV and PJR Kok. (2021) <u>Comparative osteology of the fossorial frogs of the genus Synapturanus</u> (Anura, Microhylidae) with the description of three new species from the Eastern Guiana Shield. *Zoologischer Anzeiger* 293: 46-73. https://doi.org/10.1016/j.jcz.2021.05.003. Citations = 10

 I co-wrote part of the paper.
- 58. Taverne M, Dutel H, Fagan M, Stambuk A, Lisicic D, Tadic Z, **Fabre A-C** and A Herrel (2021) <u>From micro to macroevolution: drivers of shape variation in island radiation of *Podarcis* lizards. *Evolution* 75-11: 2685-2707. https://doi.org/10.1111/evo.14326. Citations = 3</u>

I participated in the field work, performed part of the data acquisition, and wrote some parts of the paper.

59. Goswami A, Noirault E, Coombs EJ, Clavel J, **Fabre A-C**, Halliday TJD, Churchill M, Curtis A, Watanabe A, Simmons NB, Beatty BL, Geisler JH, Fox DL and RN Felice (2022).

<u>Attenuated evolution of mammals through the Cenozoic.</u> *Science* 378: 377-383. DOI: 10.1126/science.abm7525. Citations = 18

I performed part of the data acquisition and analyses and co-wrote the paper.

60. Rothier PS, **Fabre A-C**, Clavel J, Benson RBJ and A Herrel (2023) <u>Mammalian forelimb</u> evolution is driven by uneven proximal-to-distal morphological diversity. Elife 12, e81492. https://doi.org/10.7554/eLife.81492.

I participated to the design of the study, helped with the analyses data and co-wrote the paper.

- 61. <u>Fabre A-C*</u>, Portela Miguez R, Wall CE, Peckre LR, Ehmke E and R Boistel (2023) <u>A review of nose picking in primates with new evidence of its occurrence in *Daubentonia* <u>madagascariensis</u>. Journal of Zoology 319: 91-98. doi:10.1111/jzo.13034. Citation = 1 I conceived the study, performed part of the data acquisition, all the analyses and wrote the paper.</u>
- 62. Peckre L, Fabre A-C*, Wall CE, Pouydebat M and IQ. Whishaw (2023). Evolutionary history of food withdraw movements in primates: food withdraw is mediated by nonvisual strategies in 22 species of strepsirrhines. Evolutionary Biology 50, 206-223. https://doi.org/10.1007/s11692-023-09598-0

I performed all the data acquisition and co-wrote part of the paper.

63. Taverne M, Watson PJ, Dutel H, Boistel R, Lisicic D, Tadic Z, **Fabre A-C**, Fagan MJ and A Herrel (2023). Form—function relationships underlie rapid dietary changes in a lizard. Proceedings of the Royal Society B 290:2023058220230582. http://doi.org/10.1098/rspb.2023.0582

I performed part of the data acquisition and co-wrote part of the paper.

64. Goswami A, Noirault E, Coombs EJ, Clavel J, **Fabre A-C**, Halliday TJD, Churchill M, Curtis A, Watanabe A, Simmons NB., Beatty BL., Geisler JH, Fox DL and Felice RN (2023).

<u>Developmental origin underlies evolutionary rate variation across the placental skull.</u>

Philosophical Transaction of the Royal Society B 378:2022008320220083

http://doi.org/10.1098/rstb.2022.0083. Citation = 1

I performed the data acquisition and co-wrote part of the paper.

65. Monclús-Gonzalo O, Alba DM, Duhamel A, <u>Fabre A-C</u>* and J Marigó (2023) <u>Early</u>
euprimates already had a diverse locomotor repertoire: Evidence from ankle bone morphology. Journal of Human Evolution 181, 103395

I participated to the design of the study, helped to analyses data and co-wrote the paper.

66. Louppe V, Fabre A-C*, Lorvelec O and G Veron (2023) <u>Head morphology reflects the introduction history in a globally invasive carnivore—the small Indian mongoose</u>. Zoological Journal of the Linnean Society https://doi.org/10.1093/zoolinnean/zlad097

I participated to the design of the study, the acquisition of the data, helped to analyses data and cowrote the paper.

67. Stevens M, **Fabre A-C** and RN Felice (2023) Lower jaw modularity in the African clawed frog (*Xenopus laevis*) and fire salamander (*Salamandra salamandra gigliolii*).

Biological Journal of the Linnean Society

I participated to the design of the study, the acquisition of the data, helped to analyses data and cowrote the paper.

PEER-REVIEWED BOOKS and book chapters (2)

- Böhmer C, Theil J-C, **Fabre A-C**, Herrel A (2020) *Atlas of terrestrial mammal limbs*. Taylor & Francis Group, LLC
- Herrel A, O'Reilly JC, **Fabre A-C**, Bardua C, Boistel R and S Gorb (2019) Feeding in amphibians: evolutionary transformations and phenotypic diversity as drivers of feeding system diversity. In: *Feeding in Vertebrates: Evolution, Morphology, Behavior, Biomechanics* (Eds. Bels VL & IQ Wishaw). Springer Verlag. Pp. 431-467

CONTRIBUTIONS TO BOOKS (1)

Fabre A-C, Peigné S and M Salesa (2017) Reconstrucción de los hábitos locomotores de *Simocyon batalleri*. In *Catálogo exposición Cerro Batallones*. Pp. 260-263

SUPERVISION OF JUNIOR RESEARCHERS

I have supervised a total of **two postdoctoral researchers**, **five Ph.D students** (Ph.D), **21 Master** (M.Sc), **1 BNF intern**, and **9 bachelor** (B.Sc) students:

Postdoctoral researcher: Dr Fabio Alfieri, University of Bern / Naturhistorisches Museum der Burgergemeinde Bern, Bern, Switzerland, 2023-Present

Postdoctoral researcher: Dr Vivien Louppe, University of Bern / Naturhistorisches Museum der Burgergemeinde Bern, Bern, Switzerland, 2022-Present

Ph.D.: Isabelle Toussaint, University of Bern / Naturhistorisches Museum der Burgergemeinde Bern, Bern, Switzerland, 2022-Present

Ph.D.: Morgane Fournier, University of Bern / Naturhistorisches Museum der Burgergemeinde Bern, Bern, Switzerland, 2022- Present

Ph.D.: Anaïs Duhamel, Ecole Normale Supérieure Lyon, Lyon, 2022-Present.

Ph.D.: Margot Michaud, Museum National d'Histoire Naturelle, France, 2016-2019

Ph.D.: Fanny Pagès, Museum National d'Histoire Naturelle, France, 2016-2019

BNF intern- National qualification programme: Fanny Gagliardi, University of Bern, 2023

M.Sc: Sandro Studer, University of Bern, co-supervisor: K. Le Verger, 2023-2024

M.Sc: Anaïs Duhamel, MfN, Berlin, co-supervisor: N. Fröbisch, 2022

M.Sc: Mallaury Rollet, MNHN, Paris, co-supervisor: A. Herrel, 2022

M.Sc: Isabelle Toussaint, MNHN, Paris, co-supervisor: A. Herrel, 2022

M.Sc: Ryadh Amine, ESPCI, France, 2021

M.Sc: Oriol Monclús Gonzalo, Institut Català de Paleontologia Miquel Crusafont, Spain, 2020

M.Sc: Carys Dowling, University College London, UK, 2020

M.Sc: Lucy Huntley, University College London, UK, 2020

M.Sc: Sarah Cockerill, University College London, UK, 2020

M.Sc: Killian Leblanc, Museum National d'Histoire Naturelle, France, 2019

M.Sc: Margot Bon, The Natural History Museum, London, UK, 2019

M.Sc: Anna Zango, University of Göttingen, Germany, 2018

M.Sc: Valentine Chummum, Museum National d'Histoire Naturelle, France, 2017

M.Sc: Camille Lacroux, Museum National d'Histoire Naturelle, France, 2017

M.Sc: Maxime Taverne, Museum National d'Histoire Naturelle, France, 2017

M.Sc: Aurélien Lowie, Museum National d'Histoire Naturelle, France, 2016-2017

M.Sc: Cécile Moureaux, Museum National d'Histoire Naturelle, France, 2016

M.Sc: Margot Michaud, Museum National d'Histoire Naturelle, France, 2016

M.Sc: Louise Peckre, Museum National d'Histoire Naturelle, France, 2015

M.Sc: Anne Vazeille, Museum National d'Histoire Naturelle, France, 2013

M.Sc: Livia Basher, Museum National d'Histoire Naturelle, France, 2011

B.Sc: Sandro Studer, University of Bern, 2022-2023

B.Sc: Nuschin Renas, University of Bern, 2022-2023

B.Sc: Dominic Stalder, University of Zurich, 2021

B.Sc: Lise Le Vern, Brest University, 2017

B.Sc: Grégoire boussens-dumon, Agroparistech, 2017

B.Sc: Edgard Richet, Lille University, 2016

B.Sc: Raphael Lahrer, Lille University, 2016

B.Sc: Andy Boens, Lille University, 2016

B.Sc: Nina King-Gillies, Orsay (Paris XI), France, 2016

ORAL CONTRIBUTIONS AT CONFERENCES (TALKS OR POSTERS)

only first author conferences are listed here

KEYNOTE SPEAKER (4)

- **Fabre A-C** (2019) How *in vivo* data on extant species can shed light on the paleoecology of extinct species? 4th IMERP, Cuenca, Spain, June 11-14
- **Fabre A-C** (2021) Functional constraints during development as driver or brake of morphological diversity? e-jam21, Argentina, online, November 16-19
- **Fabre A-C** (2022) I used to be an axolotl... the impact of metamorphosis on the morphological and functional diversity of feeding structures in Caudata. 114th Meeting of the German Zoological Society, Bonn, Germany, 13-16 September
- **Fabre A-C** (2022) Deciphering the evolution of the incredible morphological and functional diversity in mustelids. 34th European Mustelid Colloquium, online, 14-16 September

INVITED SYMPOSIUM PRESENTATIONS (11)

- **Fabre A-C**, Salesa MJ, Cornette R, Antón M, Morales J, Peigné S **(2015)** Quantitative inferences on the locomotor behavior of extinct species: new insights from 3D surface geometric morphometrics approaches, 75th SVP, Dallas, Texas, USA; October 14-17
- **Fabre A-C**, Peckre L, Wall CE, Herrel A, Pouydebat E **(2015)** Influence of grasping ability on forelimb long bone shape in Prosimians. 6th EFP, Roma, Italy; August 25-28
- **Fabre A-C**. The evolution of prehensile behaviour and forelimb morphology in prosimians **(2016)** 50th Anniversary Symposium in celebration of the Duke Lemur Center, September 21-23
- **Fabre A-C**, Dumont M, Wall CE, Brewer D, Ehmke E, Welser K, Herrel A **(2016)** Does bite force matter in shaping the head of strepsirrhines primates, ASM, Minneapolis, MN; June 24-28
- **Fabre A-C**, Dumont M, Wall CE, Dumont E, Godfrey L, Herrel A **(2017)** Geometric morphometric approaches to infer bite Force and diet in extinct strepsirrhines. 7th EFP, Strasbourg, France; August 24
- Fabre A-C, Peckre L, Eveno A, Bardo A, Wall CE, Brewer D, Ehmke E, Welser K, Pouydebat E (2017)

 Coevolution between grasping ability and forelimb shape in strepsirrhines and platyrrhines.

 7th EFP, Strasbourg, France; August 22
- **Fabre A-C**, Dumont M, Wall CE, Herrel A **(2017)** Geometric morphometric approaches to infer bite force and diet in extinct strepsirrhines. Symposium in EAVP, Munich, Germany, August 2
- Fabre A-C, Dumont M, Herrel A, Wall C (2018) Can studies on the interplay between the musculoskeletal system and performance shed light on the paleoecology of extinct species? 5th International Palaeontological congress, Paris, France; July 12
- **Fabre A-C**, Clavel J, Courtois E, Lowie A, Moureaux C, Herrel A **(2019)** Grip it or Stick it: Frog Adaptations to Arboreal Environments. ICVM, Prague, Czech Republic; July 21-25
- **Fabre A-C**, Bardua C, Bon M, Clavel J, Felice RN, Streicher JW, Bonnel J, Stanley EL, Blackburn DC and A Goswami **(2020)**. Metamorphosis and the evolution of morphological diversity in salamanders. I Meeting of Systematics, Biogeography and Evolution (SBE). Online meeting, July 29-30.

Fabre A-C, Dominic Stalder and Marcelo R. Sánchez-Villagra **(2021)** A morphometric study of skull variation in Goldfishes: Morphospace expansion through domestication. Invited talk in the symposium "Progresses on goldfish research: macro-phenotype evolution under artificial selection". The 2nd AsiaEvo Conference, August 16-19, 2021.

ORAL PRESENTATIONS

- **Fabre A-C**, Cornette R, Baylac M, Peigné S **(2011)** Morpho-functional study of the vertebral column of the Carnivora (Mammalia): approach by the tridimensional geometric morphometrics. SMEF, Montpellier, France; May 27-28
- **Fabre A-C**, Cornette R, Delapre A, Baylac M, Keovichit K, Hugot J-P **(2011)** Populational and geographical study of a relictual rodent from the Laos (*Laonastes aenigmamus*). 3D study of its skull and its mandible. VIth ECM, Paris, France; July 19-23
- **Fabre A-C**, Slater G, Cornette R, Peigné S, Goswami A, Pouydebat E **(2012)** Getting a grip on the evolution of grasping in carnivores: a three-dimensional analysis of forelimb shape. ISF, Paris, France; November 28-30
- **Fabre A-C**, Cornette R, Goswami A, Peigné S **(2013)** Influence of locomotor style on the shape of the forelimb in musteloid carnivorans. ICVM, Barcelona, Spain; July 8-13
- **Fabre A-C**, Slater G, Cornette R, Peigné S, Goswami A, Pouydebat E **(2013)** Getting a grip on the evolution of grasping in carnivores: a three-dimensional analysis of forelimb shape. SICB, San Francisco, USA; January 3-7
- **Fabre A-C**, Goswami A, Peigné S, Cornette R **(2014)** Morphological integration in the forelimb of musteloid carnivorans. SICB, Austin, USA; January 3-7
- **Fabre A-C**, Cornette R, Peigné S, Goswami A, Dumont M **(2015)** What influences the shape of the skull in musteloids carnivorans? 6th CCS, Ghent, Belgium; July 7-10
- **Fabre A-C**, Peckre L, Wall C, Herrel A, Pouydebat E **(2015)** Influence of grasping ability on forelimb long bone shape in Prosimians. 6th EFP, Roma, Italy; August 25-28
- **Fabre A-C**, Granatosky MC, Hanna J, Schmitt D **(2016)** Coevolution between forelimb shape and loading regime in strepsirrhines. ICVM, Washington DC, USA; 29 June- 4 July
- **Fabre A-C**, Peckre L, Brewer D, Ehmke E, Welser K, E Pouydebat, Wall CE **(2016)** Influence of grasping ability on forelimb long bone shape in Prosimians. SICB, Portland, USA; January 3-7
- **Fabre A-C**, Peckre L, Wall CE, Pouydebat E **(2016)** Influence des comportements de saisie sur la morphologie du membre antérieur des lémuriens. 9th SMEF, Paris, France; June 1-2
- **Fabre A-C**, Marigó J, Granatosky MC, Schmitt D **(2016)** Functional associations between substrate use and forelimb shape in strepsirrhines and its relevance to inferring locomotor behavior in early primates. II ISGM, Madrid, Spain; June 9-10
- **Fabre A-C**, Dumont M, Wall C, Brewer D, Ehmke E, Welser K, Dumont E, Godfrey L, Herrel A **(2016)**Geometric morphometric approaches to inferring bite force and diet in extinct strepsirrhines.
 Zoology, Antwerp, Belgium; December 15-17
- **Fabre A-C**, Dumont M, Wall C, Brewer D, Ehmke E, Welser K, Dumont E, Godfrey L, Herrel A **(2017)**Geometric morphometric approaches to inferring bite force and diet in extinct strepsirrhines.
 SICB, New Orleans, USA; January 4-8
- **Fabre A-C**, Bardua C, Clavel J, Felice RN, Bonnel J, Blackburn D, Stanley E, Streicher J, Goswami A. **(2019)** Morphological evolution of the head of caudata is correlated to rapid diversification and dispersion during warming events. SVP, Brisbane, Australia; October 9-12

- **Fabre A-C**, Bardua C, Bonnel J, Blackburn D, Goswami A **(2019)** Morphological Integration of the Head in Salamanders: Impact of Developmental Strategy and Ecology. SICB, Tampa, USA; January 3-7
- **Fabre A-C**, Bardua C, Clavel J, Felice RN, Bonnel J, Blackburn D, Stanley E, Streicher J, Goswami A. **(2020)** Morphological evolution of the head of caudata is correlated to rapid diversification and dispersion during warming events. SICB, Austin, Texas; January 3-7
- **Fabre A-C**, Amine R, Dutel H, Raffaëlli J, Fröbisch N, Herrel H. **(2022)** I used to be an axolotl... the impact of metamorphosis on the kinematics and the anatomy of feeding structures in salamanders. SICB, Phoenix, Arizona; January 3-7
- Fabre A-C, Louppe V, Clavel J, Ferreira GS, Bardua C, Boistel R, Fröbisch NB, E Stanley, JW Streicher, Bothe V, Blackburn DC, Pérez-Ben C, Davesne D, Dollman K, Fernandez V, Herrel H, Goswami A. (2023) Does metamorphosis foster the morphological evolution of feeding structures in Caudata? ICVM, Cairns, Australia; July 28- August 1.

POSTER PRESENTATIONS

- **Fabre A-C**, Cornette R, Baylac M, Argot C, Herrel A, Goswami A, Peigné S **(2011)** What are the influences that shape the craniocervical system of the Carnivora Musteloidea (Mammalia)? 5th CCS, France
- **Fabre A-C**, Cornette R, G Prasad, D Boyer and A Goswami **(2011)** A 3-D morphometric analysis of the locomotory ecology of *Deccanolestes*, a eutherian mammal from the late Cretaceous of India. 71st SVP, USA
- **Fabre A-C**, Cornette R, Baylac, Peigné S **(2011)** Morpho-functional study of the vertebral column of small carnivoran: 3D landmark surface approach. ECM, France
- **Fabre A-C**, Dumont M, Wall C, Brewer D, Ehmke E, Welser K, Dumont E, Godfrey L, Herrel A **(2016)**Geometric morphometric approaches to inferring bite force and diet in extinct strepsirrhines.
 50th Anniversary Symposium in celebration of the Duke Lemur Center
- **Fabre A-C**, Bardua C, Felice R, Blackburn D, Stanley E, Bonnel J, Streicher J, Goswami A **(2019)**Morphological Integration of the Head in Salamanders: Impact of Developmental Strategy and Ecology. ICVM, Prague, Czech Republic; July 21-25
- **Fabre A-C**, Noirault E, Fernandez V, Portela Miguez R, Goswami A **(2020)** Morphological integration of the skull in marsupials: impact of diet and locomotion. SICB, Austin, Texas; January 3-7

ORGANISATION OF MEETINGS/SYMPOSIA

<u>Meeting organisation:</u> 2023 International Congress of Vertebrate Morphology, Cairns, Australia July 28-August 1, member of the executive committee.

<u>Symposium Organiser:</u> Holding on: the evolution of arboreality in tetrapods, 2019 International Congress of Vertebrate Morphology, Prague, July 21-25.

INVITED DEPARTMENTAL SEMINARS

ENS, Lyon, France (2023); MNHN, Paris, France (2023); Universität Tübingen, Germany (2023); Field Museum, Chicago, USA (2022); PIM, University of Zurich, Switzerland (2022); Bern University, Bern x2 (IEE and FIWI), Switzerland (2022); Museum fur Naturkunde, Berlin, Germany (2022); University of Bristol, Bristol, UK (2022); Evolution Seminar, Bielefeld, Germany (2021); Universidad Nacional Autónoma de México, Mexico, Mexico (2021); Museum fur Naturkunde, Berlin, Germany (2021); Harvard University, Cambridge, USA (2020); University of Bristol, Bristol, UK (2020); University of Roehampton, London, UK (2019); University of Liège, Liège, Belgique (2019); Université de Montpellier, France (2019); Museum National d'Histoire Naturelle, Paris, France (2013); Hull York Medical School, York, UK (2013); Museum National d'Histoire Naturelle, Paris, France (2013)

CONTRIBUTIONS TO ONLINE REPOSITORIES AND TO BIG DATA

I actively contribute to Phenome10K and MorphoSource (Mathication project; META-MORPHOSIS project) since their creation by sharing the 3D scans that I use in my studies. The 3D scans can be downloaded by anyone and used for research, education, or outreach. The functional and behavioural data that I acquired as well as the scripts and new functions that I use are also available in the supplementary information of the papers and/or on dryad or github (https://github.com/anjgoswami/salamanders).

ACADEMIC SERVICE

vertébrés"

<u>Assistant editor at:</u> Mammalian Biology, Journal of Zoology, Zoological Journal of the Linnean Society.

<u>Reviewer for:</u> Nature Ecology and Evolution, Evolution, Biological Journal of the Linnean Society, PlosOne, Journal of Mammalogy, Mammalian Biology, The Anatomical Record, The Herpetological Journal, PeerJ, Organisms Diversity and Evolution, Journal of Anatomy, Journal of Morphology, Evolutionary Biology, Journal of Mammalian Evolution, Journal of Zoology, Current Zoology, Evolutionary Ecology...

THESIS EXAMINATION & ADVISORY COMMITTEE

- Narimane Chatar (University of Liège Liège, Belgium) PhD defense October 2023

 External examiner for the thesis: "Disparity, evolution, and convergence among felid and felid-like carnivorans"
- Inessa Voet (MNHN Paris, France) PhD defense March 2023. External examiner for the thesis: "Crocidura shrews of tropical Africa: Phylogeography and morphological evolution"
- Aurelien Lowie (Ghent University Ghent, Belgium) PhD defense November 2022.
 - External examiner for the thesis: "Under pressure: evolution of the musculoskeletal system in burrowing limbless tetrapods"
- Marjorie Roscian (MNHN Paris, France) PhD defense December 2021.
 - External examiner for the thesis: "Morphologies et fonctions des mâchoires de céphalopodes"
- Alessia HUBY (FNRS Universite de Liege, Belgium) PhD defense September 2021.

 External examiner for the thesis: "How evolved that mouth: a functional morphological approach to unravel the evolutionary history of trophic shift between herbivory and carnivory in Serrasalmidae (Teleostei: Characiformes)"
- Rohan Mansuit (MNHN Paris, France) PhD defense November 2020.

 External examiner for the thesis: "Etude morpho-fonctionnelle des nageoires pectorales du coelacanthe actuel *Latimeria* considérations sur les modalités de la terrestrialisation des

- Menelia Vasilopoulou-Kampitsi (Universiteit Antwerpen Antwerpen, Belgium) Viva February 2020 External examiner for the thesis: "Ecological and functional morphology of locomotion of lacertid lizards"
- Jack Kirkpatrick McMinn (University of Cambridge Cambridge, UK) Viva October 28 2019
 External examiner for the thesis: "Is inter-individual relatedness evident in hard tissue morphometrics?"
- Maxime Taverne (MNHN Paris, France) 2017 2020
 - External advisor for the thesis: "Engineering approach to understand the functional and ecological implications of small-scale morphological variation in an evolutionary context"
- Quentin Martinez (Université de Montpellier Montpellier, France) 2017 Present. External advisor for the thesis: "Olfaction chez les rongeurs et eulipotyphla"
- Narimane Chatar (University of Liège Liège, Belgium) Master defense June 27 2019
- External examiner for the master thesis: "Disparity of the mandible of primitive sabretoothed felids from the late Miocene of Batallones (Spain)"
- Margot Bernardi (Université de Bourgogne Dijon, France) 2015 Present External advisor for the thesis: "L'audition chez les Primates : entre forme, fonction, écologie et comportement"
- Léo Botton-Divet (MNHN Paris, France) 2014 2017
 - External advisor for the thesis: "Form and function relationships in the process of secondary adaptation to an aquatic life the contribution of semi-aquatic mammals"

PROFESSIONAL SOCIETY MEMBERSHIPS

Society for Integrative and Comparative Biology, 2012-present; International Society of Vertebrate Morphology, 2013-present; Royal Belgian Zoological Society 2021-present.

PUBLIC OUTREACH/EDUCATION

Just a selection of the outreach of my work is presented below <u>Print:</u> BBC Wildlife: "<u>After life</u>", July 2019

<u>Nature blog behind the paper:</u> "Metamorphosis as a driver of morphological diversity in <u>Salamanders"</u> <u>CNRS blog:</u> "<u>La métamorphose, un véritable moteur de la diversité</u>",

<u>Web:</u> le Monde: <u>"Se curer le nez, une vase affaire de primates"</u>; Nature Briefing: <u>'Nose-picking primates eat their own snot'</u>; BBC: <u>"Nose-picking primates spark scientific quest"</u>; phys.org: <u>"New Study reveals how metamorphosis has shaped the evolution of salamanders"</u>, Natural History Museum Discover: <u>"Metamorphosis is helping to explain salamander skull diversity"</u>, <u>"Examining the body of one of the world's most elusive porpoise species</u>", The conversation: "Natural selection in action: hurricanes Irma and Maria affected island lizards", National Geographic: <u>"This bizarre primate has a newly discovered digit"</u>, "This secret skill helps lizards survive hurricanes"...

 $\underline{\it Video:}\ 12\ {\it days}\ {\it of}\ {\it Christmas}\ about\ the\ aye-aye$, public talk at the ${\it 50^{th}}\ anniversary\ of\ the\ Duke\ Lemur\ Center$

<u>Scientific advisory during learning vacation:</u> scientific expert and supervision of 5 children during paleontological excavation in Montreal du Gers, France (one month each summer between 2003-2006).

<u>Live events:</u> Museum Nacht NMBE; Science is wonderful (November 2021); NHM researchers' night (London UK), La Fete de la Science (Paris, France)

CURATORIAL AND DIGITIZATION EXPERIENCE

Curator of mammals at NMBE since 06/2022. Morphosource manager for the vertebrate collections at the NMBE.

Identification and preparation of specimens of mammals (extant and extinct specimens)

Digitization of collections using CT and surface scanners (University of Tuebingen, Germany; NHM London, UK; MNHN, Paris, France)

All the specimens that I digitized are available on Phenome10K, Morphosource and the 3Dtheque (MNHN, Paris)

INTERNATIONAL NETWORK AND RELATIONS

I have previously conducted my research in several countries (France, United Kingdom, United States, Switzerland and Germany) and I have organized and participated in field work and paleontological expeditions since 2003 (see list below). Through these diverse experiences I have built an international network of collaborators (see references below) and gained important knowledge in experimental, computational, and field systems. In addition, I am also working with zoos and research facilities.

Field work

- 2022 French Guyana (NMBE)
- 2019 Paros, Greece (Harvard University, University of Athens and MNHN)
- 2018 Pine Cay and Water Cay, Turks and Caicos, (Harvard University and MNHN)
- 2017-18 French Guiana (MNHN)
- 2017 Pine Cay and Water Cay, Turks and Caicos, (Harvard University and MNHN)
- 2017 Paros and Naxos, Greece (Harvard University, University of Athens and MNHN)
- 2016 Korcula, Croatia (University of Zagreb and MNHN)
- 2016 Vis, Lastovo and 15 other islands, Croatia (UC Irvine, University of Zagreb, Paris 6 and MNHN)
- 2015 French Guiana (MNHN)
- 2015 Martinique (Harvard University and MNHN)
- 2015 Venezuela (IVIC and MNHN)
- 2015 Curação and Bonaire (Harvard University and MNHN)
- 2015 San Andres, Providencia, Colombia (Harvard University and MNHN)
- 2013 Singapore, Republic of Singapore (NUS and MNHN)
- 2013 Lastovo, Croatia (University of Zagreb and MNHN)
- 2013 Los Tuxtlas, Mexico (UNAM and MNHN)

• Zoo and research facilities:

2023-ongoing – CNRS Subterranean laboratory in Moulis, Moulis, France

2023-ongoing - Amphibian Foundation, Atlanta, Georgia, USA

2016-ongoing – Zoo de Vincennes, Paris, France

2016-ongoing – Ménagerie du jardin des Plantes, Paris, France

2016-2018 – Zoo Antwerp, Antwerp, Belgium

2014-2016 - Duke Lemur Center, Durham, North Carolina, USA

Paleontological field work

2019 - Chennai, India (NHM, University of Delhi)

2009-2011 – Batallones (Madrid, Spain, Miocene)

2007 – Esperaza (Aude, France, Maastrichtien)

2006 – Thezels (Quercy, France, Oligocene)

2005 – Caraman (Haute Garonne, France, Oligocene)

2003 to 2006 – Montreal-du-Gers (Gers, France, Miocene)

INTERNATIONAL ACTIVITIES

I have presented my work at several international congresses, and I have been invited to present my work in Europe and abroad at international meetings and symposia, including four keynote lectures. I am also dedicated to academic service, both within my institution and across the broader scientific community. I am currently supervising 2 Postdoctoral researchers, 3 PhD Students and 1 Master thesis. I have co-supervised 2 PhD students at the MNHN in Paris, and have supervised over 20 Master and bachelor students at the NHM (London), the MNHN (Paris), the UZH (Zurich), the MfN (Berlin), the University of Bern and in many other countries as a co-supervisor. In addition to reviewing journal articles and books, I am also an elected member of the executive committee of the International Society of Vertebrate Morphology (elected, 2019 and re-elected, 2023) and the Linnean Society (elected, 2020) and an associate editor at Journal of Zoology, the Zoological Journal of the Linnean Society and Mammalian Biology.

LANGUAGES

French (native), English (fluent), German (B1-B2).