



Fidji Berio

- 30 years old
- Älvsjö Stationsgata 2A
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- <https://fberio.github.io>
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- French Citizenship

Social Network

- Twitter
- ResearchGate
- Google Scholar
- Github
- Orcid

Languages

- French ● ● ● ● ●
- English ● ● ● ● ●
- Spanish ● ● ● ● ●

Certifications

- Level 2 FFESSM (Advanced PADI)
- Level 1 Nitrox
- PADI Freediver

Hard Skills

- R programming
- Machine learning
- MicroCT imaging
- Histology
- Functional tests

Research Interests

Evo-Devo – Climate change – Biomechanics – Chondrichthyans

Working Experience

- Nov 2022–
Current **Postdoctoral fellow** Stockholm University
Projects Physiology of walking elasmobranchs & Mineralization patterns in bony fish related to climate change [11]
- Sept–Oct 2022 **Guest professor** University of Vienna
Teaching Functional evolution of jaw structures [10]
- 2021–2022 **Science communicator** Futura Sciences
Activities Online writing of popularization articles, interviews
Topics Marine biology, paleontology, paleoanthropology
- 2017 – 2021 **PhD Student** ENS Lyon & Institute of Evolution Sciences of Montpellier
Project Physical and genetic factors impacting development and evolution of elasmobranch odontodes [1–4, 6–9]
Methods microCT imaging, histology, machine learning and geometric morphometrics with R, functional tests on *Scyliorhinus canicula* embryos, comparative anatomy
- 2017 **Master Thesis** Univ. du Québec à Rimouski
Project Regionalisation of the vertebral column in a skate [5]
Methods microCT imaging, clustering with R, Clear & Stain double coloration
- 2016 **Master Thesis** Oceanological Observatory of Banyuls-sur-mer
Project Long-term experiment on growth dynamics of hydrothermal mussels *Bathymodiolus thermophilus* related to hydrothermal fluids dynamics
Methods Sclerochronology, Fast Fourier Transform, Mutvei staining
- 2015 **Bachelor Thesis** Institute of Integrative Neurosciences, Bordeaux
Project Effects of serotonin on aggressiveness of the invasive Louisiana crayfish *Procambarus clarkii*
Methods Video tracking with EthoVision, ethology, functional tests on mature specimens

Education

- 2017 – 2021 **PhD Studies** ENS Lyon & Institute of Evolution Sciences of Montpellier
Evo-devo of chondrichthyans
- 2015 – 2017 **Master Studies (1/31)** European Institute for Marine Studies, Brest
Littoral and Sea Sciences with focus on Marine ecosystems and Polar environments
- 2012 – 2015 **Bachelor Studies (1/60)** Univ. of Bordeaux
Biology of Organisms and Ecosystems
- 2010 – 2012 **Bachelor Studies** Univ. of Montpellier
Hypokhâgne & Khâgne – Literature studies (French and Spanish)

Teaching

- 2022 **To Master & PhD Students** Univ. of Vienna
Functional Evolution of Jaw Structures
- 2019 **To Bachelor Students** Univ. of Montpellier
Integrative Biology of Organisms and Comparative Anatomy
- 2019 **To High School Students** Univ. of Montpellier
Embryo and Evolution
- 2018 **To Bachelor Students** Univ. of Montpellier
Life Cycle of Organisms – Genetics

Publications

2023	[11] Ontogenetic plasticity in shoaling behavior in a forage fish under warming <i>F. Berio, C. Morerod, X. Qi & V. Di Santo</i> Integrative & Comparative Biology DOI: 10.1093/icb/icad043
Under review	[10] Husbandry conditions of spotted ratfish (<i>Hydrolagus colliei</i>, Chimaeriformes) in aquaria for successful embryonic development and long-term survival of juveniles <i>F. Berio, R. Charron, J.-M. Dagouret, F. De Gasperis, A. Éon, E. Meunier, M. Simonet, N. Verschraegen & N. Hirel</i> Zoo Biology
2023	[9] A shark-inspired general model of tooth morphogenesis unveils developmental asymmetries in phenotype transitions <i>R. Zimm, F. Berio, M. Debiais-Thibaud & N. Goudemand</i> PNAS DOI: 10.1073/pnas.2216959120
2022	[8] Hide and seek shark teeth in Random Forests: Machine learning applied to <i>Scyliorhinus canicula</i> <i>F. Berio*, Y. Bayle*, D. Baum, N. Goudemand & M. Debiais-Thibaud</i> PeerJ - Aquatic Biology DOI: 10.7717/peerj.13575
2022	[7] 3D models related to the publication: Hide and seek shark teeth in Random Forests: Machine learning applied to <i>Scyliorhinus canicula</i> <i>F. Berio, Y. Bayle, S. Agret, D. Baum, N. Goudemand & M. Debiais-Thibaud</i> MorphoMuseum DOI: 10.18563/journal.m3.164
2022	[6] Early shape divergence of developmental trajectories in the jaw of galeomorph sharks <i>F. A. López-Romero, F. Berio, D. Abed-Navandi & J. Kriwet</i> Frontiers in Zoology DOI: 10.1186/s12983-022-00452-1
2021	[5] Phenotypic regionalization of the vertebral column in the thorny skate <i>Amblyraja radiata</i>: stability and variation <i>F. Berio, Y. Bayle, C. Riley, O. Larouche & R. Cloutier</i> Journal of Anatomy DOI: 10.1111/joa.13551
2021	[4] Diversity and evolution of mineralised skeletal tissues in chondrichthyans <i>F. Berio, M. Broyon, S. Enault, N. Pirot, F. A. López-Romero & M. Debiais-Thibaud</i> Frontiers in Ecology and Evolution DOI: 10.3389/fevo.2021.660767
2020	[3] The intraspecific diversity of tooth morphology in the large-spotted catshark <i>Scyliorhinus stellaris</i>: insights into the ontogenetic cues driving sexual dimorphism <i>F. Berio, A. Evin, N. Goudemand & M. Debiais-Thibaud</i> Journal of Anatomy DOI: 10.1111/joa.13257
2020	[2] Scyland3D: Processing 3D landmarks <i>F. Berio & Y. Bayle</i> Journal of Open Science Software DOI: 10.21105/joss.01262
2019	[1] Evolutionary developmental genetics of teeth and odontodes in jawed vertebrates: A perspective from the study of elasmobranch fishes <i>F. Berio & M. Debiais-Thibaud</i> Journal of Fish Biology DOI: 10.1111/jfb.14225

Conferences

2023	Poster presentation Society for Experimental Biology	United Kingdom
2022	Oral presentation Sharks International	Online Edition
2020	Oral presentation ToScA Global	Online Edition
2019	Oral presentation Comparative Cartilage Biology meeting	France
2018	Poster presentation Evolution	France
2018	Poster presentation EuroEvoDevo	Ireland
2018	Oral presentation Symposium of Morphometry and Evolution of Forms	France