

Sophie Monsarrat, PhD

Conservation Biogeography, Historical Ecology, Restoration

BIOCHANGE - Center for Biodiversity Dynamics in a Changing World

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Research Experience

2019 – present Postdoctoral researcher: Macroecology and Megafauna Ecology from the Deep Prehistory to a Human-Dominated Future

Supervisor: Jens-Christian Svenning, BIOCHANGE - Center for Biodiversity Dynamics in a Changing World, Section for Ecoinformatics & Biodiversity, Aarhus University, Denmark.

2017- 2018 Postdoctoral researcher: Reconstructing historical baselines for southern African mammal species to inform conservation management.

Supervisor: G. Kerley. Centre for African Conservation Ecology, Nelson Mandela University, Port Elizabeth, South Africa.

2015 Postdoctoral researcher: Evaluating the level of depletion of cetaceans in relation to a pre-human impact baseline to inform their conservation.

Supervisors: A. Rodrigues, D. Kaplan. Institute for Research and Development IRD UMR 248 MARBEC, Sète, France. 6 months.

2012-2015 PhD student: Reconstruction of marine mammal's historical distribution and abundance: setting a baseline to understand the past, inform the present and plan the future.

Supervisors: F. Bonadonna and A. Rodrigues. Center for functional and evolutionary ecology CNRS UMR 5175, Montpellier, France.

2011 Research assistant: Foraging habitat selection of griffon vultures *Gyps fulvus* in response to supplementary feeding management.

Supervisors: O. Duriez and C. Bessa-Gomes. Ecology, Systematics and Evolution Lab CNRS, UMR 8079 ESE, Orsay, France. 3 months.

Master student (2nd year research internship): The impact of food predictability on the foraging behavior of griffon vultures.

Supervisors: O. Duriez and F. Sarrazin. Center for functional and evolutionary ecology CNRS UMR 5175, Montpellier, France – French National Museum of Natural History, UMR 7204 CERSP, Paris, France. 5 months.

2010 Master student (1st year research internship): Time-budget analysis in the wintering Eurasian woodcock *Scolopax rusticola*.

Supervisors: O. Duriez and Y. Ferrand. French National Museum of Natural History, UMR 7204 CERSP, Paris, France – French national agency for wildlife. 3 months.

Volunteer research internship: Detection of the population dynamic of chiropters in hiberculatum.

Supervisors: C. Kerbiriou, J.F. Julien and A. Robert. MNHN, UMR 7204 CERSP, Paris, France. 2 months.

Education

2015 PhD in Conservation Biology, Montpellier University, Montpellier (France).

2011 M.Sc. in Environmental Biology (Ecology Biodiversity and Evolution), Paris-Sud XI University, Orsay (France).

2011 Magistère in Biology and Biotechnologies Paris-Sud XI University, Orsay (France) and ENS Cachan. A two-year program of excellence (pursued in combination with my M.Sc.) combining science, entrepreneurship and research training.

2009 B. Sc. in Biology. Paris-Sud XI University, Orsay (France).

Publications (h-index=10)

(for each publication, the Impact Factor 2020 (IF2020) of the journal is provided, as well as the number of citations)

Preprints

2. Nicolas Dubos, ..., **Sophie Monsarrat**, et al. (2021) *Assessing the effect of sample bias correction in species distribution models*. arXiv <https://doi.org/10.48550/arXiv.2103.07107> (Under revision in Ecological Indicators)

1. Vogel, S. M.*, **Monsarrat, S.***, Pasgaard, M., Buitenwerf, R., Custock, A. C., Ceaușu, S., ... Svenning, J. (2021) *A multi-disciplinary perspective to nuance the narrative of tree planting as a nature-based solution*. SocArXiv <https://doi.org/10.31235/osf.io/5ymqt> (Under revision in People and Nature) *co-first authors

Published or In press

15. **Monsarrat S.**, Fernández N., Pereira H.M., Svenning J-C. (In press) *Supporting the restoration of complex ecosystems requires long-term and multi-scale perspectives*. Ecography. **IF2020: 6.0**

14. Sales L., Galetti M., Carnaval A., **Monsarrat S.**, Svenning J-C. and Pires M.M. (In press) *The effect of past defaunation on ranges, niches, and future biodiversity forecasts*. Global Change Biology. **IF2020: 10.86**

13. **Monsarrat S.**, Svenning J-C. (2021). *Using recent baselines as benchmarks for megafauna restoration places an unfair burden on the Global South*. Ecography:ecog.05795. **IF2020: 6.0, Citations: 2**

12. Berti E., **Monsarrat S.**, Munk M., Jarvie S., Svenning J-C. (2020). *Body size is a good proxy for vertebrate charisma*. Biological Conservation, 251, 108790. **IF2020: 5.99, Citations: 8**

11. **Monsarrat, S.**, Hansen, O. L. P., & Svenning, J.-C. (2020). *Highly variable impacts of feral horses on ecosystems worldwide*. Biological Conservation, 247, 108616. **IF2020: 5.99, Citations: 0**

10. Rodrigues A.S.L., **Monsarrat S.**, Charpentier A., Brooks T., Hoffmann, M., Reeves, R.R., Palomares M.L.D., Turvey, S.T. (2019) *Unshifting the baseline: a framework for documenting historical population changes and assessing long-term anthropogenic impacts*. Phil. Trans. B, 374, 20190220. **IF2020: 6.24, Citations: 17**

9. **Monsarrat S.**, Jarvie S., Svenning J-C. (2019) *Anthropocene refugia: integrating history and predictive modelling to assess the space available for biodiversity in a human-dominated world*. Phil. Trans. B: 374, 20190219. **IF2020: 6.24, Citations: 30**

8. **Monsarrat S.**, Novellie P., Rushworth I., Kerley G.I.H. (2019) *Shifted distribution baselines: neglecting long-term biodiversity records risks overlooking potentially suitable habitat for conservation management*. Phil. Trans. B: 374, 20190215. **IF2020: 6.24, Citations: 15**

7. **Monsarrat S.**, Boshoff A.F., Kerley G.I.H. (2018) *Accessibility maps as a tool to predict sampling bias in historical biodiversity occurrence records*. Ecography 42: 125-136. **IF2020: 6.0, Citations: 29**

6. **Monsarrat S.**, Kerley G.I.H. (2018) *Charismatic species of the past: biases in reporting of large mammals in historical written sources*. Biological Conservation: 223, 68-75. **IF2020: 5.99, Citations: 24**

5. **Monsarrat S.**, Smith T.D, Reeves R.R, Pennino M.G., Meynard C.M., Kaplan D.M., Rodrigues A.S.L. (2016) *A spatially-explicit estimate of the pre-whaling abundance of the endangered North Atlantic right whale*. Conservation Biology: 30(4), 783-791. **IF2020: 6.56, Citations: 19**

4. Rodrigues A.S.L, Kolska Horwitz L., **Monsarrat S.**, Charpentier A. (2016) *Ancient whale exploitation in the Mediterranean: species matters*. Antiquity: 90 352: 928–938. **IF2020: 1.66, Citations: 15**

3. **Monsarrat S.**, Smith T.D, Reeves R.R, Pennino M.G., Meynard C.M., Kaplan D.M., Rodrigues A.S.L (2015) *Historical summer distribution of the endangered North Atlantic Right Whale (*Eubalaena glacialis*): a hypothesis based on environmental preferences of a congeneric species*. Diversity and Distributions: 21 (8), 925-937. **IF2020: 4.09, Citations: 22**

2. Kerbiriou C., Julien J.F., **Monsarrat S.**, Lustrat P., Haquart A. & Robert A. (2015) *Information on population trends and biological constraints from bat counts in roost cavities: a twenty two-year case study of an hibernaculum of Pipistrelle bats (*Pipistrellus pipistrellus*, Schreber)*. Wildlife research: 42 (1), 35-43. **IF2020: 2.28, Citations: 11**

1. **Monsarrat S.**, Benhamou S., Sarrazin F., Bessa-Gomes C., Bouten W., Duriez O. (2013) *How does predictability of feeding patches affect home range and foraging habitat selection in avian social scavengers?* PLoS ONE 8(1): e53077. **IF2020: 3.24, Citations: 164**

Teaching and Student Supervision

TEACHING

- 2021** **Guest Lecturer.** University of Manchester, UK. Level: MSc (2h)
Instructor. Aarhus University, Denmark. *Macroecology and Ecoinformatics*. Level: PhD (18 hours)
Guest Lecturer. Aarhus University, Denmark. Biogeography and Macroecology. Level: MSc (3 hours)
- 2020** **Guest Lecturer.** Montpellier University, France. *Conservation*. Level: MSc (3 hours)
Guest Lecturer. Aarhus University, Denmark. *Biogeography and Macroecology*. Level: MSc (4 hours)
Instructor. BIOCHANGE center, Aarhus University, Denmark. *Method workshop on "Online biodiversity resources"*. Level: PhD (2 hours)
- 2019** **Guest Lecturer.** Aarhus University, Denmark. *Megafauna ecology*, Level: PhD (2 hours); *Biogeography and Macroecology*, Level: MSc (1 hour).
Instructor. Aarhus University, Denmark. Project supervisor in the course: *Biology research in theory and practice* (10-weeks undergraduate project-based course). Level: 1st year (30 hours)
- 2018** **Co-supervision of a five-day excursion at Great Fish River Nature Reserve for a 3rd year Zoology class.**
Nelson Mandela University, South Africa.
- 2012-2015** **Guest Lecturer.** Montpellier University, France. *Marine Mammalogy*. Level: BSc (12 hours)

STUDENT SUPERVISION

- 2013 - 2014** **Co-supervision of 4 M.Sc. students.** (2 to 6 months projects)

Funding and Awards

- 2021** **Seal of Excellence** awarded for a Marie Skłodowska-Curie action (MSCA) individual fellowship (score: 90.2%)
- 2018** **Conference travel grant.** *Claude Leon Foundation* (ca. 3 000€).
- 2017** **Claude Leon Postdoctoral Fellowship.** *Claude Leon Foundation*. 2-year salary.
- 2013** **Best talk award.** *Student Conference on Conservation Science (Cambridge, UK)*.
- 2012** **PhD funding.** *French National Research Agency* (as part of the Project ANR-11-CEPL-006 coordinated by Dr Ana Rodrigues). 3-year salary and research expenses.

Invited Seminars

- 2021** Workshop on Animal Historicity. ZIF Center for Interdisciplinary Research (Bielefeld, Germany) [Talk]
- 2020** Biodiversity Week. University of Baroda (India) [Talk]
Megafauna symposium. BIOCHANGE center, Aarhus University (Aarhus, Denmark) [Talk]
- 2019** Royal Society meeting: The Past is a Foreign Country. Royal Society of London (London, UK) [Talk]
- 2018** CEFÉ seminar. Center for functional and evolutionary ecology (Montpellier, France) [Talk]
- 2015** Marine predators meeting (La Rochelle, France) [Talk]
- 2014** Workshop: Marine Mammals as Indicators of Historical Changes, European Cetacean Society Conference (Liège, Belgium) [Talk]

Presentations at International Conferences

- 2021** International Congress for Conservation Biology, ICCB (online) [Talk]
- 2020** World Biodiversity Forum (Davos, Switzerland) [Poster]
- 2019** Ecolo'tech congress - Special theme: Rewilding (Montpellier, France) [Talk]
- 2019** Species on The Move conference (Kruger National Park, South Africa) [Talk]
- 2018** 5th European Conference for Conservation Biology, ECCB 2018 (Jyväskylä, Finland) [Poster]
- 2015** Society for Marine Mammalogy Conference, SMM 2015 (San Francisco, USA) [Talk]
- 2015** International Congress for Conservation Biology, ICCB-ECCB 2015 (Montpellier, France) [Talk]
- 2013** 20th Biennial Conference for the Biology of Marine Mammals (Dunedin, New Zealand) [Poster]
- 2013** Student Conference on Conservation Science (Cambridge, UK) [Talk] **Best Talk Award**
- 2012** Oceans Past IV (Perth, Australia) [Talk]
- 2012** Réveil du dodo IV (Dijon, France) [Talk]

2011 8th conference of the European Ornithologist Union (Riga, Latvia) [Talk]

2010 Rencontres nationales de la chauve-souris (Bourges, France) [Talk]

Outreach

Technical reports and blog articles

Monsarrat S. (2018) *Accessibility maps as a tool to predict sampling bias in historical biodiversity records*. Ecography blog. [link](#)

Monsarrat S. (2018) *Historical change in large mammal species richness*. In: (T)(C)Racking the Shale-Gas Debate. AEON Report Series 4, 81.

Monsarrat S., Duriez O., Sarrazin F., Lecuyer P. (2013) *L'utilisation des sites d'alimentation par les vautours fauves dans les Causses*. Vautours Info: 24, 3-4. [PDF](#)

Kerbiriou C., Marmet J., **Monsarrat S.**, Robert A., Lemaire M., Arthur L., Haquart A., Julien JF. (2012) *Eléments de réflexion sur le suivi des gîtes de chiroptères*. Symbioses: 28, 55-58. [PDF](#) **Citations: 5**

Appearance in media

Where big mammals belong—the unfair burden to restore, by Adam Custock. Current Conservation (2021). [link](#)

Looking More Deeply Into the Past to Gauge the Planet's Future, by James Dinneen. Undark Magazine (2020). [link](#)

Ude af øje (Out of sight), by Anders Lundt. Weekendavisen (2019) (in Danish). [link](#)

How Canada can save the whales, by Cameron Jefferies. The Globe and Mail (2017). [link](#)

American Whalers Killed Way More Than Just Whales, by Ed Yong. *The Atlantic* (2016). [link](#)

Public outreach

Public interventions on whale watching tours with “Découverte du Vivant”. Sanary, France (10 events since 2016)

Other scientific and volunteering activities

Active member and scientific advisor at [Rewilding France](#)

Reviewer for Phil. Trans. B, Ecography, Diversity and Distributions, Biological Conservation, Biogeosciences, Marine Mammal Science, Deep-Sea Research-Part II, Marine Ecology Progress Series, Ibis, Journal of Ornithology.

2021 **Guest editor** for a special issue in Ecography (IF2020: 6.0) for the UN Decade on Ecosystem Restoration.

2019-2021 **Co-organizer of the Socio-Ecological Forum**. Monthly meetings around socio-ecological and political ecology themes. BIOCHANGE center, Aarhus University, Denmark

2020 **Co-organizer of the Megafauna Symposium**. 4 days seminars and workshop on megafauna restoration. BIOCHANGE center, Aarhus University, Denmark.

2012-2015 **Student representative at the OSU-OREME** (Observatory of Universe Sciences). Montpellier, France.

2014 **Co-organizer of the 10th «Ecology and Behaviour» meeting** in Montpellier (13th-16th May 2014; 130 attendees) with AREB (Association des Rencontres Ecology and Behaviour).

Relevant Technical Skills

SPATIAL ANALYSES

Macroecology, mapping, geospatial modelling, species distribution modelling, home range analysis, habitat selection. (R, ArcGis, QGis)

DATA MANAGEMENT, ANALYSIS AND VISUALIZATION

Online biodiversity resources, Spatial data manipulation, Data management (in R and Excel), Data Analyses (non-parametric statistics, linear and non-linear [mixed] models, Using R), Data visualization (R, Adobe Illustrator, GIMP)

FIELDWORK

Fieldwork assistant on bird capture (South Africa), camera trap surveys (South Africa), vulture GPS tracking (France).

Languages

French: mother tongue. **English:** fluent in oral, reading and writing. **Spanish:** intermediate knowledge