

Sophie Monsarrat, PhD

Conservation Biogeography and Historical Ecology

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Education

- 2015** **PhD** in Conservation Biology, Montpellier University, Montpellier (France).
- 2011** **M.Sc. in Environmental Biology** (Specialty Ecology Biodiversity and Evolution), Paris-Sud XI University, Orsay (France). Awarded with distinction.
- 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 Masters degree) combining science, entrepreneurship and research training. Awarded with distinction.
- 2009** **B. Sc. in Biology** (Specialty Molecular and Cellular Biology). Paris-Sud XI University, Orsay (France). Awarded with distinction.

Research Experience

- 2017- present** **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. French National Museum of Natural History, UMR 7204 CERSP, Paris, France. 2 months.

2009 Undergrad student (3rd year research internship): The impact of global warming on carbohydrates reserves in *Quercus petraea* and *Pinus sylvestris* in Fontainebleau forest.

Supervisors: A. Michelot and C. Damesin. Ecology, Systematics and Evolution Lab – UMR 8079 ESE, Orsay, France. 3 months.

2008 Undergrad student (2nd year research internship): DNA reparation mechanisms and the structure of chromatin in *Saccharomyces cerevisiae*.

Supervisor: R. Waters. Pathology department, Cardiff University, Cardiff, Wales, UK. 2 months.

NB: There is a gap in my research activities in 2016 due to a lack of research funding. This year was spent actively searching for postdoctoral funding (6 grant applications, 2 applications for post-doctoral positions).

Publications

Monsarrat S., A. Boshoff, G.I.H. Kerley. *Accessibility maps as a tool to predict sampling bias in historical biodiversity occurrence records* (Under review, Ecography)

Monsarrat S., G.I.H. Kerley. *Charismatic species of the past: biases in reporting of large mammals in historical written sources*. Biological Conservation (In press)

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 [doi:10.1111/cobi.12664](https://doi.org/10.1111/cobi.12664)

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 <https://doi.org/10.15184/aqy.2016.109>

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*): an hypothesis based on the environmental niche of a congeneric species*. Diversity and Distributions: 21 (8), 925-937 [doi: 10.1111/ddi.12314](https://doi.org/10.1111/ddi.12314)

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 <http://dx.doi.org/10.1071/WR14197>

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. [doi: 10.1371/journal.pone.0053077](https://doi.org/10.1371/journal.pone.0053077)

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](#)

Teaching and Student Supervision

TEACHING

- 2012-2015** **Teaching (Undergraduate level). Men and marine mammals: 10,000 years of interaction**
University of Montpellier, France (course organizer: Dr A. Celerier). 6 hours/year.

STUDENT CO-SUPERVISION

- 2014** **Christel Vidaller**, M.Sc. *The impact of human exploitation on the global distribution, abundance and behaviour of the Mediterranean monk seal, *Monachus monachus**. (6 months)
- 2013** **Morgane Olivier**, M.Sc. *A review of human impact on marine mammals in Asia*. (2 months)
- 2013** **Laureline Chabrand**, M.Sc. *Historical exploitation of seals in the Southern Seas*. (3 months)
- 2013** **Laura Pinillos**, M.Sc. *The shifting baseline of the diversity and abundance of marine mammals in South America and the Caribbean*. (5 months)

Grants and Awards

- 2018** **Conference travel grant.** *Claude Leon Foundation* (ca. 3 000€).
- 2017** **Claude Leon Postdoctoral Fellowship.** *Claude Leon Foundation*. 2 years salary.
- 2015** **Postdoctoral funding.** *French National Research Agency* (as part of the Project ANR-11-CEPL-006 coordinated by Dr Ana Rodrigues). 6 months salary and research expenses.
- 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 years salary and research expenses.

Invited Seminars

- 2017** Nelson Mandela University – Zoology department seminar (Port Elizabeth, South Africa). [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

- 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]
- 2011** Groupe Vautour France (Millau, France). [Talk]
- 2010** Rencontres nationales de la chauve-souris (Bourges, France). [Talk]

Participation in scientific working groups

- 2012-2015** PhD student in the **MORSE project** (Management of Ocean Resources under Shifting Expectations: bringing the historical perspective into marine mammal conservation), funded by the Agence Nationale de la Recherche. Montpellier, France. Coordinators: A. Rodrigues, D. Kaplan, F. Leprieur.

- 2012-2014** Participant in the **PELAGIC project** (Prioritizing ecologically significant and globally important areas for marine mammal conservation: synthesizing the best available knowledge to inform management and policy), funded by the FRB-CESAB and Fondation Total. Aix-en-Provence, France. Coordinators: A. Rodrigues and D. Kaplan.
- 2014** Participant in the workshop **Ancient exploitation of marine mammals in the Mediterranean Sea**, funded by the Maison des Sciences de l'Homme de Montpellier, France. Coordinators: A. Charpentier and A. Gardesein.

Other scientific and volunteering activities

- Reviewer** for Biological Conservation, Marine Mammal Science, Deep-Sea Research-Part II, Marine Ecology Progress Series.
- 2016** **Volunteer** at the International Conference of Ecological Sciences, Société Française d'Ecologie (24-27 October 2016). Marseille, France.
- 2016** **Scientific adviser and observer in whale watching tours** with the company "Découverte du Vivant". Sanary, France.
- 2015** **Member of the local organization committee** at the International Congress for Conservation Biology 2015, Society for Conservation Biology (2-6 August 2015). Montpellier, France.
- 2014** Organizer of the **10th «Ecology and Behaviour» meeting** in Montpellier (13th-16th May 2014; 130 attendees) with the AREB (Association des Rencontres Ecology and Behaviour). Logistics, social events organization, fund raising, member of the scientific committee.
- 2012-2015** **Student representative at the OSU-OREME** (Observatory of Universe Sciences) council. Montpellier, France.

Relevant Technical Skills

SPATIAL ANALYSES

Mapping, home range analysis, habitat selection, species distribution modelling (GAM, BRT, Maxent) (Using R - packages dismo, maps, maptools, raster, rgdal, rgeos, sp, spatstat - ArcGis and Google Earth)

DATA MANAGEMENT, ANALYSIS AND VISUALIZATION

Data management (in R and Excel), Data Analyses (non-parametric statistics, linear and non-linear [mixed] models, Using R – packages lme4, mgcv, VGAM), Data visualization (using R – package ggplot2 - Adobe Illustrator and GIMP)

Languages

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

References

Dr Ana Rodrigues

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