

Paolo Becciu, Ph.D. – Curriculum Vitae

CONTACT INFORMATION Department of Ecology and Evolution
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CURRENT POSITION **Postdoc researcher** Sep 2020 – ongoing
Barn Owl Research Group, Department of Ecology and Evolution
University of Lausanne, Switzerland.
Lab head: Alexandre Roulin.

EDUCATION **Ph.D., Behavioural Ecology** Oct 2015 – Jul 2020
Animal Flight Laboratory, Department of Evolutionary and Environmental Biology,
University of Haifa, Israel. Dissertation: *The effects of environmental conditions on soaring migratory birds crossing the Mediterranean basin*.
Advisor: N. Sapir.

– **Visiting Ph.D. student** Oct 2019 – Jun 2020
Guest student at the Animal-Environment Interactions Lab., **Max Planck Institute of Animal Behavior and University of Konstanz**, Germany
Project: *Research on global-scale meta-analysis of soaring migrants crossing geographical barriers: effects of atmospheric conditions on route selection, flight speed and costs*.
Advisor: K. Safi.

M.S., Evolution of Animal & Human Behaviour 2012 – 2014
Department of Life Sciences and Systems Biology, **University of Turin**, Italy.
Advisors: G. Boano (Carmagnola Natural History Museum), B. Massa (University of Palermo) and G. Dell’Omo (Ornis italica).

B.S., Natural Sciences 2008 – 2012
Department of Earth Sciences, **University of Rome ”La Sapienza”**, Italy
Advisors: A. Fanfani (University of Rome), B. Massa (University of Palermo) and G. Dell’Omo (Ornis italica).

PEER-REVIEWED ARTICLES

- Campioni L, Madeiros J, & [Becciu P](#) (2023) Citizen science data reveal possible multi-decadal phenological changes in the arrival time of a migratory tropical seabird species at the breeding ground. *Marine Biology*, 170: 124. [[link](#)]
- [Becciu P](#), Troupin D, Dinevich L, Leshem Y, & Sapir N. (2023) Soaring migrants flexibly respond to sea-breeze in a migratory bottleneck: using first derivatives to identify behavioural adjustments over time. *Movement Ecology*, 11: 44. [[link](#)]

11. Schalcher K, Milliet E, Séchaud R, Buehler R, Almasi B, Pottier S, Becciu P*, Roulin A*, & Shepard ELC* (2023) Non-visual camouflage predicts hunting success in a wild predator. *eLife*. [link] (reviewed preprint)
*joint senior author
10. Becciu P, Séchaud R, Schalcher K, Plancherel C, & Roulin A. (2023) Prospecting movements link phenotypic traits to female annual potential fitness in a nocturnal predator. *Scientific Reports*, 13: 5071. [link]
9. Becciu P, Panuccio M, Dell’Omo G & Sapir N. (2021) Groping in the fog: soaring migrants exhibit wider scatter in flight directions and respond differently to wind under low visibility conditions. *Frontiers in Ecology and Evolution*, 9: 767. [link]
8. Nourani E, Bohrer G, Becciu P, Bierregaard RO, Duriez O, Figuerola J, Gangoso L, Giokas S, Higuchi H, Kassara C, Kulikova O, Lecomte N, Monti F, Pokrovsky I, Sforzi A, Therrien J-F, Tsiopelas N, Vansteelant W, Viane D, Yamaguchi NM, Wikelski M & Safi K. (2021) The interplay of wind and uplift facilitates over-water flight in facultative soaring birds. *Proceedings of the Royal Society B*, 288: 20211603. [link]
7. Becciu P, Campioni L, Massa B & Dell’Omo G. (2021) Unconditional adoption rules out the need for parent-offspring recognition in a single-brooded colonial seabird. *Ethology*, 127: 605-612. [link]
6. Becciu P, Rotics S, Horvitz N, Kaatz M, Fiedler W, Zurell D, Flack A, Jeltsch F, Wikelski M, Nathan R & Sapir N. (2020) Causes and consequences of facultative sea crossing in a soaring migrant. *Functional Ecology*, 34: 840-852. [link]
5. Becciu P Menz MHM, Aurbach A, Cabrera-Cruz SA, Wainwright CE, Scacco M, Ciach M, Pettersson LB, Maggini I, Arroyo GM, Buler JJ, Reynolds DR & Sapir N. (2019) Environmental effects on flying migrants revealed by radar. *Ecography*, 42: 942-955. [link]
4. Fayet AL & Becciu P (2018) Easternmost record of an Atlantic puffin *Fratercula arctica* in the Mediterranean Sea on the coast of Israel. *Seabird*, 31: 84-87. [link]
3. Cianchetti Benedetti M*, Becciu P*, Massa B & Dell’Omo G. (2018) Conflicts between touristic recreational activities and breeding shearwaters: Short-term effect of artificial light and sound on chick weight. *European Journal of Wildlife Research*, 64: 19. [link]
*contributed equally to this work
2. Becciu P, Panuccio M, Catoni C, Dell’Omo G & Sapir N. (2018) Contrasting aspects of tailwinds and asymmetrical response to crosswinds in soaring migrants. *Behavioral Ecology and Sociobiology*, 72: 28. [link].
1. Zavalaga CB, Dell’Omo G, Becciu P & Yoda K. (2011) Patterns of GPS tracks suggest nocturnal foraging by incubating Peruvian Pelicans (*Pelecanus thagus*). *PLoS ONE*, 6(5): e19966. [link]

BOOK CHAPTERS,
CONFERENCE
PROCEEDINGS AND
CURRENT
PREPRINTS

2. Becciu P. (2021) Chapter 14. Eurasian Sparrowhawk *Accipiter nisus*. In: *Migration Strategies of Birds of Prey in Western Palearctic*. Eds: Mellone U., Panuccio M. & Agostini N. *CRC Press*. [link chapter] - [link book]

1. Becciu P, Massa B & Dell’Omo G. (2012) Body mass variation in Scopoli’s shearwater *Calonectris diomedea* breeding at Linosa Island. Pages 16-18. In: ***Ecology and Conservation of Mediterranean Seabirds and other bird species under the Barcelona Convention***, Proceedings of the 13th Medmaravis Pan-Mediterranean Symposium. Alghero (Italy) 14-17 Oct. 2011. Eds: Ysou P, Baccetti N & Sultana J. [[link](#)]

SELECTED
CONTRIBUTIONS
AT CONFERENCES

8th International Bio-Logging Science Symposium	Japan, 4-8 Mar 2024
e-Poster.	
21st Italian Ornithological Congress	Italy, 4-8 Sept 2023
Oral - Invited contribution.	
14th European Ornithologists’ Union Congress	Sweden, 21-25 Aug 2023
Oral - Invited contribution.	
2nd Movement Ecology of Animals GRC/GRS	Italy, 27 May - 2 June 2023
Poster.	
28th International Ornithological Conference	South Africa, 14-20 Aug 2022
Oral.	
20th Italian Ornithological Congress	Italy, 26-29 Sept 2019
Oral - Invited contribution.	
12th European Ornithologists’ Union Congress	Romania, 26-30 Aug 2019
Oral.	
27th International Ornithological Conference	Canada, 19-26 Aug 2018
e-Poster/Speed-Talk.	
Israeli Ringing Meeting	Israel, 13 Oct 2017
Invited speaker.	
1st International Conference on Radar Aeroecology	Italy, 23-24 Feb 2017
e-Poster/Speed-Talk.	
European Network for the Radar surveillance of Animal Movement Meeting	Malta, 18-20 Apr 2016
Oral.	

PROFESSIONAL
AND FIELD
EXPERIENCE

Posdoctoral position	Sept 2020 – ongoing
Movement ecology of Barn owls: sex differences in parental investment and effects of moon parameters on hunting performance	
Place: University of Lausanne, Switzerland.	
Advisor: Alexandre Roulin.	
Field researcher	Dec 2017
Experiment on homing pigeons’ flight responses under different wind conditions during homing flights.	
Place: Rome, Italy.	
Advisors: Nir Sapir (University of Haifa), Giacomo Dell’Omo (<i>Ornis italica</i>).	
Field researcher	2010–2017, 2020
Data collection on Scopoli’s shearwater biology and foraging ecology. Handling of birds (adults and chicks), recording of weight and body measurements, ringing the birds, attachment/recovery of Accelerometer-GPS-dataloggers and geolocators, deployment of omnidirectional microphones and marine radar. Data analysis and writing.	
Place: Linosa island, Sicily, Italy.	
Advisors: Bruno Massa (University of Palermo), Giacomo Dell’Omo (<i>Ornis italica</i>).	

Field assistant 2013–2017

Monitoring of the reproductive success of the Scopoli's shearwater population and eradication of Black rats (*Rattus rattus*) and House mice (*Mus musculus*). Financed by the LIFE11 + NAT/IT/000093 "Pelagic Birds" for Scopoli's shearwater conservation.

Place: Linosa island, Sicily, Italy.

Supervisors: Bruno Massa (University of Palermo) and Giacomo Dell'Omo (*Ornis italica*).

Field researcher Sept 2015

Recording of autumn bird migration by x-band radar, creation of individual/flock tracks and preparation of data for analysis.

Place: Serro, Sicily, Italy.

Employers: Giacomo Dell'Omo and Carlo Catoni (*Ornis italica*).

Data analyst Jun 2015

Analysis of the effects of wind on soaring migrants recorded by radar. Financed by a Short Term Scientific Mission (STSM) in the framework of European Network for the Radar surveillance of Animal Movement (ENRAM), COST Action ES1305.

Place: University of Haifa, Israel.

Advisor: Nir Sapir (University of Haifa).

Field researcher Sept 2015

Recording of autumn bird migration by x-band radar, creation of individual/flock tracks and preparation of data for analysis.

Place: Solano, Calabria, Italy.

Employers: Giacomo Dell'Omo and Carlo Catoni (*Ornis italica*).

Field assistant Oct 2011

Assisting the ringer during the ringing procedures at a seasonal ringing station.

Place: Linosa island, Sicily, Italy.

Supervisor: Emanuela Canale (University of Palermo).

Assistant librarian Jan-Sept 2011

Assistance to students searching for bibliography at the library of Department of Biology and Biotechnology "Charles Darwin".

Place: University of Rome "La Sapienza".

Librarian: Pierluigi Piccioni.

Field assistant Dec 2010

Field work for research on foraging ecology involving trapping birds and deploying GPS dataloggers on Peruvian booby (*Sula variegata*), Blue-footed booby (*S. neouxi*) and Peruvian pelican (*Pelecanus thagus*).

Place: Lobos de Tierra island, Perú.

Supervisors: Carlos B. Zavalaga and Ken Yoda (Nagoya University of Japan).

SERVICE FOR
JOURNALS

Reviewer for: *Proceedings B, Ecosphere, Movement Ecology, Behavioral Ecology and Sociobiology, Journal of Avian Biology, Journal of Ethology, Remote Sensing, IEEE Geoscience and Remote Sensing Letters, Climate Change Ecology, Regional Studies in Marine Science, PLoS ONE, Ecology and Evolution*
[[Web of Science profile](#)]

CITATION
METRICS

Accessed 11 January 2024:

Google Scholar: 208 citations, h-index = 6.

ResearchGate: 191 citations, h-index = 6.

Web of Science: 128 citations, h-index = 6.

STUDENTS

Roxane Allemann, MSc student at Univ. of Lausanne (Feb. 2021)
Sara Chiarello, MSc student at Univ. of Palermo (Mar. 2021)
Sara Lazzeri, MSc student at Univ. of Parma (Apr. 2021)
Alexandre Roland, MSc student at Univ. of Lausanne (Jan. 2023)
Arianna Longarini, MSc student at Univ. of Pavia (Feb. 2023)

Clara Sand, MSc project student at Univ. of Lausanne (Dec. 2021)
Quentin Fort, internship project student from Uni. Montpellier, France (Jul. 2023)
Cédrine Siek, internship project student from ENVY, France (Aug. 2023)
Kerrian Chauviere, MSc project student at Univ. of Lausanne (Dec. 2023)

TEACHING

Introduction to Conservation Biology - University of Lausanne, Switzerland 2023
Teaching assistance to undergraduate students supervising their writing of "news and views" article, research proposal and presentation based on latest research in Conservation Biology.
Teacher: Claus Wedekind.

Population Biology - University of Lausanne, Switzerland 2022, 2023
Teaching assistance to undergraduate students supervising their writing of "news and views" article, research proposal and presentation based on latest research in Conservation and Population Biology.
Teacher: Claus Wedekind.

Experimental Design - University of Lausanne, Switzerland 2021
Practical assistance to undergraduate students planning and performing an experiment in the field, with data collection, statistical analysis and writing of final report and presentation.
Teacher: Frédéric Schütz.

The Diversity of Life: Zoology - University of Lausanne, Switzerland 2021
Practical assistance to undergraduate students dissecting and collecting data in the field.
Teachers: Tadeusz Kawecki, Alexandre Roulin.

Bird Migration Course - University of Haifa, Israel 2018
Lecture on "Effects of weather and climate change on migrating birds" and video visualization of bird tracks with annotated environmental data.
Teacher: Nir Sapir.

Zoology I - University of Rome "Sapienza", Italy 2011
Setting up the laboratory before the class and tutoring the students during their practical work during the lesson.
Teacher: Fiorenza Accordi.

GRANTS AND
AWARDS

- Environment Climate Change Canada (ECCC) grant** 2023 – 2024
Funding for project titled “*Increasing the population size of the globally endangered Bermuda Petrel*”. Co-directed with: Dr. Letizia Campioni, Marine and Environmental Sciences Centre, Lisbon, Portugal.
- Erasmus+ ICM Fellowship** Oct 2019 – Mar 2020
6-month project on “*Global-scale meta-analysis of soaring migrants crossing geographical barriers: effects of atmospheric conditions on route selection, flight speed and costs*”. Host: Dr. Kamran Safi, Max Planck Institute of Animal Behavior and University of Konstanz, Germany.
- Migrant Landbird Study Group (MLSG) Travel Grant** 2019
- PhD Article Publication Award** 2018, 2019, 2020
- Department of Evolutionary and Environmental Biology Travel Grant** 2018
- University of Haifa Conference Grant** 2017, 2018, 2019
- Zoological Society of Israel Travel Grant** 2017
- COST Action ES1305 Short Term Scientific Mission Fellowship** 2015
- “Andrea Marconato” Award** 2015
Best M.Sc. thesis in Behavioural Ecology (academic year 2013/2014) from the “Istituto Veneto di Scienze, Lettere ed Arti”, Venice, Italy.
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SKILLS

Software: R, Windows, QGIS, L^AT_EX, Overleaf, Markdown, WordPress, [Github](#), Graphic editors (GIMP, InkScape, and Adobe suites).

Statistics: (G)LM, hierarchical (mixed-effects) models, GAM, spatial statistics, data visualization, model selection, model averaging, model diagnostics, predictive inference, circular statistics, movement analyses. Bayesian modeling with **brms**. Supervised Machine Learning with **XGboost**.

Languages: English (C1); Spanish (B1); French (A1); Italian (native speaker).

REFERENCES

- Prof. **Nir Sapir**, University of Haifa. ☎+972 46 647966. nirs@sci.haifa.ac.il
- Prof. **Alexandre Roulin**, University of Lausanne. ☎TBA. alexandre.roulin@unil.ch
- Dr. **Bettina Almasi**, Swiss Ornithological Institute. ☎TBA. bettina.almasi@vogelwarte.ch
- Prof. **Bruno Massa**, University of Palermo. ☎+39 091 220313. bruno.massa@unipa.it
- Dr. **Giacomo Dell’Omo**, Ornithologica. ☎+39 347 6167167. giacomo.dellomo@gmail.com
- Dr. **Kamran Safi**, Max Planck Institute of Animal Behavior. ☎+49 (0) 7732 150 132. ksafi@ab.mpg.de
- Dr. **Letizia Campioni**, MARE – Marine and Environmental Sciences Centre/ARNET – Aquatic Research Network, Ispa – Instituto Universitário. ☎TBA. letiziacampioni@hotmail.com