# Paolo Becciu, Ph.D. – Curriculum Vitae


**Contact information**

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## 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: Nir Sapir.

– **Visiting Ph.D. student** Oct 2019 – Jun 2020
Guest student at the Computational Ecology 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: Kamran Safi.

**M.S., Evolution of Animal & Human Behaviour** 2012 – 2014
Department of Life Sciences and Systems Biology, **University of Turin**, Italy.
Advisors: Giovanni Boano, Bruno Massa (University of Palermo) and Giacomo Dell'Omo (Ornis italica).

**B.S., Natural Sciences** 2008 – 2012
Department of Earth Sciences, **University of Rome "La Sapienza"**, Italy
Advisors: Alberto Fanfani, Bruno Massa (University of Palermo) and Giacomo Dell'Omo (Ornis italica).

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## Peer-reviewed articles

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. (2020) 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]

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## Preprints, book chapters and proceedings

5. 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]

4. Becciu P, Panuccio M, Dell'Omo G & Sapir N. Groping in the fog: soaring migrants exhibit wider scatter and do not properly adjust their flight in response to wind under low visibility conditions. ***bioRxiv***. [link]

3. 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. ***bioRxiv***. [link]

2. 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. ***bioRxiv***. [link] (published)

1. Becciu P, Massa B & Dell'Omo G. (2012) Body mass variation in Scopolis 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]

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## Submitted manuscripts

1. Becciu P, Panuccio M, Dell'Omo G & Sapir N. Groping in the fog: soaring migrants exhibit wider scatter and do not properly adjust their flight in response to wind under low visibility conditions.

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## In preparation

2. Becciu P, Troupin D, Dinevich L, Leshem Y & Sapir N. Between sea and desert: soaring migrants beneficially modulate their flight in relation to sea-breeze.

1. Becciu P, Nourani E, et al., Nathan R, Sapir N & Safi K. Global-scale meta-analysis of land soaring migrants crossing geographical barriers.

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## Professional and field experience

**Posdoctoral position** Sept 2020 – on going
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.

**Teaching assistant at the Bird Migration Course** Oct 2018
Lecture on *Effects of weather and climate change on migrating birds* and video visualization of bird tracks with annotated environmental data.
Place: University of Haifa.
Teacher: Nir Sapir.

**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 DellOmo (Ornis italica).

**Field researcher** 2010–2017, 2020
Data collection on Scopolis 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 DellOmo (Ornis italica).

**Field assistant** 2013–2017
Monitoring of the reproductive success of the Scopolis shearwater population and eradication of Black rats (*Rattus rattus*) and House mice (*Mus musculus*). Financed by the LIFE11 + NAT/IT/000093 "Pelagic Birds" for Scopolis shearwater conservation.
Place: Linosa island, Sicily, Italy.
Supervisors: Bruno Massa (University of Palermo) and Giacomo DellOmo (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 DellOmo 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 DellOmo and Carlo Catoni (Ornis italica).

**Teaching assistant** Nov 2011
Internship as teaching assistant at the B.Sc course of Zoology. Setting up the laboratory before the class and tutoring the students during their practical work during the lesson.
Place: University of Rome La Sapienza.
Professor: Fiorenza Accordi.

**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. nebouxii*) and Peruvian pelican (*Pelecanus thagus*).
Place: Lobos de Tierra island, Per.
Supervisors: Carlos B. Zavalaga and Ken Yoda (Nagoya University of Japan).

## Service for Journals

**Reviewer for**: *Ecosphere*, *Movement Ecology*, *IEEE Geoscience and Remote Sensing Letters*
[Publons profile]

## Citation Metrics

Accessed 09 September 2021:

**Google Scholar:** 93 citations, h-index = 5.

**ResearchGate:** 85 citations, h-index = 4.

**Publons:** 51 citations, h-index = 4.

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## Students

**Roxane Allemann**, MSc student at University of Lausanne (co-advisor, Feb. 2021)
**Sara Lazzeri**, MSc student at University of Parma (co-advisor, Apr. 2021)
**Sara Chiarello**, MSc student at University of Palermo (co-advisor, Mar. 2021)

## Grants and Awards

**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.

**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, R-INLA, Windows, Blender, ArcGIS, QGIS, LaTeX, Overleaf, Markdown, WordPress, 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 INLA.

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

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## 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

Prof. **Bruno Massa**, University of Palermo. ☎+39 091 220313. bruno.massa@unipa.it

Dr. **Giacomo Dell'Omo**, Ornis italica. ☎+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

Prof. **Carlos B. Zavalaga**, Universidad Cientca del Sur. ☎-. czav_1999@yahoo.com

Dr. **Giovanni Boano**, University of Turin and Natural History Museum of Carmagnola. ☎+39 011 0240083. g.boano@gmail.com