

Paolo Becciu, Ph.D.

CONTACT INFORMATION

Ecological Research Unit
Swiss Ornithological Institute
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PROFESSIONAL SUMMARY

Postdoctoral researcher with expertise in behavioural and movement ecology. Extensive experience in leading research projects, publishing peer-reviewed articles, and mentoring students. Skilled in data analysis, scientific writing, and teaching. For further information and details, find my research interests [here](#).

CURRENT POSITION

Postdoctoral researcher
Ecological Research Unit
Swiss Ornithological Institute, Switzerland.
Unit head: Dr. Martin Grüebler.

May 2025 – ongoing

PREVIOUS POSITIONS

Postdoctoral researcher
Barn Owl Research Group, Department of Ecology and Evolution
University of Lausanne, Switzerland.
Lab head: Prof. Alexandre Roulin.

Sep 2020 – Apr 2025

Visiting Ph.D. candidate

Oct 2019 – Jun 2020

Guest researcher 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.*
Lab head: K. Safi.

Ph.D. candidate in 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.*
Lab head: N. Sapir.

EDUCATION

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

19. Scacco M, Smaers JB, ..., Becciu P, ..., Safi K & Shepard ELC (2026) Airflows redefine the cost of aerial transport in the wild. *Science* (*in press*)
18. Cumer T, Topaloudis A, Lavanchy E, Ducrest A-L, Sarmiento Cabello S, Hewett A, Becciu P, Simon C, Almasi B, Roulin A & Goudet J. (2026) Genomic bases of short-term evolution in wild barn owls revealed by long-term monitoring and population-scale sequencing. *Nature Communications* [[link](#)] (*in press*)
17. Schalcher K, Milliet E, Séchaud R, Buehler R, Almasi B, Becciu P* & Roulin A*. (2026) Barn owl color morphs hunt differently in moonlight. *Current Biology*, 36: 3077-3087.e4. [[link](#)]
*joint senior author
16. Becciu P, Schalcher K, Milliet E, Savage JL, Romano A, Almasi B & Roulin A. (2025) Real-time context-dependent cooperation in parental provisioning reveals fitness pay-offs in barn owls. *iScience*, 28: 113533. [[link](#)]
15. Becciu P, Patterson A, Gjerdrum C, Madeiros J & Campioni L. (2025) Fine-scale movement data reveal primarily surface foraging and nocturnal flight activity in the endangered Bermuda petrel. *Ecology and Evolution*, 15: e71647. [[link](#)]
14. Schalcher K, Milliet E, Séchaud R, Buehler R, Almasi B, Pottier S, Becciu P*, Roulin A*, & Shepard ELC*. (2024) Landing force reveals new form of motion-induced sound camouflage in a wild predator. *eLife*, 12: RP87775. [[link](#)]
*joint senior author
13. Santos CD, Sapir N, Becciu P, Granadeiro JP & Wikelski M. (2024) Risk-sensitive response of soaring birds to crosswind over dangerous sea highlights age-specific differences in migratory performance. *Proceedings of the Royal Society B*, 291: 20240454. [[link](#)]
12. 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](#)]
11. 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](#)]
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. [\[link\]](#)

OTHER SCIENTIFIC PUBLICATIONS

3. Becciu P, Schalcher K, Almasi B & Roulin A. (2026) Female melanin traits predict parental role division in barn owl pairs. *under review*.
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: Yesou P, Baccetti N & Sultana J. [\[link\]](#)

SKILLS

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

Data analysis: Bayesian modeling with `brms`, `rstan` and `rjags`. (G)LM, hierarchical (mixed-effects) models, GAM(M), time-to-event models (TTE, PAMM), data visualization, circular statistics, movement-based behavioural classification (HMM), utilization distribution estimation (AKDE), resource- and step-selection analysis (RSF, SSF). Supervised Machine Learning with `XGboost`.

SELECTED CONTRIBUTIONS AT CONFERENCES	29th International Ornithological Congress	Mexico, 30 Nov-5 Dec 2026
	Oral.	
	20th Int. Soc. Behavioral Ecology Congress	Italy, 20-24 July 2026
	Oral.	
	19th Int. Soc. Behavioral Ecology Congress	Australia, 29 Sept-4 Oct 2024
	Oral.	
	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 Congress	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 Congress	Canada, 19-26 Aug 2018
	e-Poster/Speed-Talk.	
	1st International Conference on Radar Aeroecology	Italy, 23-24 Feb 2017
	e-Poster/Speed-Talk.	

MEMBERSHIPS *International Society of Behavioral Ecology (ISBE) - International Bio-Logging Society - European Ornithologists' Union (EOU) - Society for Open, Reliable, & Transparent Ecology & Evolutionary Biology (SORTEE)*

SERVICE FOR
JOURNALS **Associate editor:** *New Zealand Journal of Zoology*
Reviewer (selected journals): *Proceedings of the Royal Society B - Movement Ecology - Journal of Applied Ecology - Behavioral Ecology and Sociobiology - Ecosphere - Journal of Avian Biology - Ibis - Bird Study - Journal of Ethology - Climate Change Ecology - PLoS ONE - Ecology and Evolution - Journal of Animal Ecology*
[[Web of Science profile](#)]

CITATION
METRICS Accessed on 12 October 2026:
Google Scholar: 372 citations, h-index = 9.
ResearchGate: 313 citations, h-index = 9.

MENTORED STUDENTS	Hannah McIntyre , Internship at Swiss Ornithological Institute	(2025-2026)
	Axel Bergsson , MSc project report at Univ. of Lausanne	(Dec. 2024)
	Kim Schalcher , PhD thesis at Univ. of Lausanne	(Aug. 2023)
	Kerrian Chauvière , MSc project report at Univ. of Lausanne	(Dec. 2023)
	Cédrine Siek , internship project report from ENVIT, France	(Aug. 2023)
	Quentin Fort , internship project report from Uni. Montpellier, France	(Jul. 2023)
	Arianna Longarini , MSc thesis at Univ. of Pavia	(Feb. 2023)
	Alexandre Roland , MSc thesis at Univ. of Lausanne	(Jan. 2023)

Clara Sand, MSc project report at Univ. of Lausanne (Dec. 2021)
Sara Lazzeri, MSc thesis at Univ. of Parma (Apr. 2021)
Sara Chiarello, MSc thesis at Univ. of Palermo (Mar. 2021)
Roxane Allemann, MSc thesis at Univ. of Lausanne (Feb. 2021)

TEACHING

Introduction to Conservation Biology - University of Lausanne 2023-2025
 Teaching assistant supervising undergraduate students 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 2022-2024
 Teaching assistant supervising undergraduate students 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 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 2021
 Practical assistance to undergraduate students dissecting and collecting data in the field.

Teachers: Tadeusz Kawecki, Alexandre Roulin.

Bird Migration Course - University of Haifa 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" 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

International Society of Behavioral Ecology Travel Grant 2024

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.

REFEREES

Dr. **Martin Gruebler**, Swiss Ornithological Institute. martin.gruebler@vogelwarte.ch

Prof. **Alexandre Roulin**, University of Lausanne. alexandre.roulin@unil.ch

Prof. **Nir Sapir**, University of Haifa. nirs@sci.haifa.ac.il

Dr. **Bettina Almasi**, Swiss Ornithological Institute. bettina.almasi@vogelwarte.ch

Dr. **Kamran Safi**, Max Planck Institute of Animal Behavior. ksafi@ab.mpg.de

Dr. **Letizia Campioni**, Marine and Environmental Sciences Centre, Lisbon. letizia-campioni@hotmail.com

Dr. **Giacomo Dell’Omo**, Technosmart Europe s.r.l. giacomo.dellomo@gmail.com