

David López-Idiáquez

Edward Grey Institute of Field Ornithology - Department of Biology - University of Oxford

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APPOINTMENTS

- 2023 - Postdoc: Edward Grey Institute for Field Ornithology, University of Oxford PI: Prof Ben C. Sheldon
- 2020 - 2023 Postdoc: Center for Functional and Evolutionary Ecology (CEFE-CNRS) & University of the Basque Country (EHU) Pls: Dr Claire Doutrelant and Prof Peter B. Pearman
- 2018 - 2019 Visiting researcher: Center for the Study and Conservation of Raptors in Argentina
6 months
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EDUCATION

- 2014 - 2017 PhD in Biology: Natural History Museum of Madrid (MNCN-CSIC) Supervisor: Dr Jesús Martínez-Padilla
- 2011 - 2013 MSc in Ecology: Universidad Autónoma de Madrid (UAM) Supervisor: Dr Pablo Vergara
- 2011 - 2013 BSc in Biology: University of the Basque Country & University of Parma
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PROJECTS

- 2022 Biodiversity and Evolution Group funding [170,400€]
Funder: Department of Education - Basque Country Government. Pls: Profs J. Loidi & I. Biurrun
- 2021 Environmental heterogeneity as a driver of the macro-evolutionary patterns of plumage colouration complexity [10,674€]
Funder: SYNTHESIS+ European Commission. PI: **Dr David López-Idiáquez**
- 2019 Eco-evolutionary dynamics and macro-evolutionary patterns of multiple signalling systems [105,000€ to cover salary]
Funder: Department of Education - Basque Country Government. PI: **Dr David López-Idiáquez**
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OTHER FUNDING

- Small research grants 2020: 1,610€ Departmental funding CEFE-CNRS
2019: 2,031€ Departmental funding CEFE-CNRS
1,500€ French Society of Ecology and Evolution
- Travel grants 2018: 8,400€ to visit the Centre for Study and Conservation of Raptors in Argentina from the Basque Country Government
- Travel grants for conferences c. 1,700€ from: British Ornithologist Union, International Society for Behavioural Ecology and Association for the Study of Animal Behaviour
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PEER-REVIEWED PUBLICATIONS

- 17. López-Idiáquez, D.**, Cole, E.F., Satarkar, D., Crofts, S.J., McMahon, K., Sheldon, B.C. *Not-so-great tit: early-life environment drives long-term decrease in adult body mass in a wild population.* Under review [Journal of Animal Ecology](#).
- 16. López-Idiáquez, D.**, Cole, E.F., Regan, C.E., Sheldon, B.C. *Phenological plasticity enables thermal homeostasis in a wild bird population.* Under review [Science Advances](#)
- 15.** Arrufat, P., Hidalgo-Triana, N., Keen, N., Perena-Ortiz, J.F., Pérez-Latorre, A. V., Leunda-Esnaola, A., García-Flórez, A., Kabardin, V.R., Kolar, F., **López-Idiáquez, D.**, Pearman, P.B. *Independent radiations onto serpentine habitats highlight species-specific evolutionary histories of lineage diversification.* Under review [Journal of Systematics and Evolution](#)
- 14.** Satarkar, D., **López-Idiáquez, D.**, Sepil, I., Sheldon, B.C. *Developmental stage-specific responses to extreme climatic events and environmental variability in great tit nestlings.* [Global Change Biology](#), in press
- 13.** Sandmeyer, L., **López-Idiáquez, D.**, Fargevieille, A., Giovannini, P., Perret, S., del Rey, M., Charmantier, A., Doutrelant, C., Gregoire, A. *Disentangling urbanisation, climate effects and their interaction on ornamental colourations.* [PCI Ecology](#) 5: e137.
- 12. López-Idiáquez, D.** [2025]. Digest: Direct benefits as a mechanism promoting the evolution of female ornamentation. [Evolution](#) *qraf251*

11. **López-Idiáquez, D.**, Doutrelant, C., Pearman, P.B. [2025]. *Global patterns of colouration complexity in the Paridae: Effects of climate and species characteristics across body regions.* Journal of Animal Ecology 94: 1461-1473
10. **López-Idiáquez, D.**, Teplitsky, C., Fargevielle, A., del Rey, M., Mercier-Gauthier, R., de Franceschi, C., Charmantier, A., Doutrelant, C., Réale, D. [2024]. *Sex-dependent integration of ornamentation, personality, morphology and life history.* Behavioural Ecology. arad085
9. Salmón, P., **López-Idiáquez, D.**, Capilla-Lasheras, P., Pérez-Tris, J., Isaksson, C., Watson, H. [2023]. *Urbanisation impacts plumage colouration in a songbird across Europe: evidence from a correlational, experimental and meta-analytical approach.* Journal of Animal Ecology 92: 1924-1936 *Journal of Animal Ecology top-viewed article in 2023*
8. Wheatcroft, D., Bliard, L., El Harouchi, M., **López-Idiáquez, D.**, Karkkainen, T., Kraft, F.-L., Muriel, J., Rajan, S., Tuvillo, T., Cantarero, A., Laaksonen, T., Martínez-Padilla, J., Visser, M., Qvarnstrom, A. [2022]. *Species-specific song responses emerge as a by-product of tuning to the local dialect.* Current Biology 32: 1-6
7. **López-Idiáquez, D.**, Teplitsky, C., Grégoire, A., Fargevielle, A., de Franceschi, C., del Rey, M., Charmantier, A., Doutrelant, C. [2022]. *Long-term decrease in colouration: a consequence of climate change?* The American Naturalist 200: 32-46
6. **López-Idiáquez, D.**, Canal, D., Calleja, I., Frade, A., Sarasola, J.H. [2019]. *First record of the Chimango Caracara (*Milvago chimango*) using shrimp as prey.* Journal of Raptor Research 53:436-437
5. **López-Idiáquez, D.**, Fargallo, J.A., López-Rull, I., Martínez-Padilla, J. [2019]. *Plumage colouration in early-life: sexual differences in signalling.* IBIS 161:216-221
4. **López-Idiáquez, D.**, Vergara, P., Fargallo, J.A., Martínez-Padilla, J. [2018]. *Providing longer post-fledgling dependence periods increases offspring survival at the expense of future fecundity.* PLoS One 13(9):e0203152
3. Martínez-Padilla, J*, **López-Idiáquez, D***, López-Perea, J.J., Mateo, R., Paz, A., Vinuela, J. [2017]. *A negative association between bromadiolone exposure and nestling body condition in common kestrels: management implications for vole outbreaks.* Pest Management Science 73:364-370 *Joint first authorship.
2. **López-Idiáquez, D.**, Vergara, P., Fargallo, J.A., Martínez-Padilla, J. [2016]. *Female plumage colouration signals status to conspecifics.* Animal Behaviour 121:101-106.
1. **López-Idiáquez, D.**, Vergara, P., Fargallo, J.A., Martínez-Padilla, J. [2016]. *Old males reduce melanin-pigmented traits and increase reproductive outcome under worse environmental conditions in common kestrels.* Ecology and Evolution 6: 1224-1235.

BOOK CHAPTERS

1. Martínez-Padilla, J., Fargallo, J.A., Carrillo-Hidalgo, F., López-Jiménez, N., **López-Idiáquez, D.** [2021]. *Cernícalo vulgar - Falco tinnunculus.* Libro Rojo de las Aves de España. SEO/BirdLife.

SCIENCE DISSEMINATION

8. **López-Idiáquez, D.** [2025]. *Las condiciones ambientales y la coloración de las aves.* Blog of the Spanish Association of Terrestrial Ecology (AEET) *In Spanish*
7. **López-Idiáquez, D.** [2025] *On how and why I took more than 22,500 colour measures in a month and survived.* Animal Ecology in Focus *In Spanish and English*
6. **López-Idiáquez, D.** [2024]. *The great tits in this Oxford wood are adapting their breeding times as climate changes - here's how.* The Conversation
5. **López-Idiáquez, D.** [2023]. *EOU Conferences: A perfect platform for sharing your research.* Blog of the British Ornithologist Union (BOU)
4. **López-Idiáquez, D.** et al. [2023]. *Tintes de ciudad: los efectos de la vida urbana sobre la coloración de las aves.* The Conversation. *In Spanish*
3. **López-Idiáquez, D.** [2022]. *El cambio climático está robando el color a las aves.* The Conversation. *In Spanish*
2. **López-Idiáquez, D.** [2019]. *La adolescencia de las aves.* Naturalmente - Journal of the Natural History Museum of Madrid *In Spanish*
1. **López-Idiáquez, D.** [2018]. *The dark side of the nestling: darker nestlings display bolder personalities, but only if they are female.* Blog of the British Ornithologist Union (BOU)

Appearances in media: My research has appeared in newspapers and news outlets of countries such as: Spain (e.g. RTVE and National Geographic España), United Kingdom (e.g. The Times or The Daily Telegraph), Germany (e.g. Süddeutsche Zeitung), Belgium (e.g. RTBF), US (e.g. Newsweek and Scientific American) or Argentina (e.g. La Nación).

INVITED SEMINARS

5. **López-Idiáquez, D.** [2025]. From colouration to phenology: bird responses to anthropogenic pressures. University of Bielefeld (Germany)
4. **López-Idiáquez, D.** [2023]. Temperature and precipitation are associated with plumage colour complexity in the Paridae. Edward Grey Institute Seminars. University of Oxford (UK)
3. **López-Idiáquez, D.** [2022]. Bird colouration in a changing world. Seminars in Biodiversity and Evolution. CIBIO-InBIO, Porto (Portugal)

2. López-Idiáquez, D. [2021]. Is climate change impacting blue tit colouration? Department of Behavioural and Evolutionary Ecology. CEFÉ-CNRS, Montpellier (France)

1. López-Idiáquez, D. [2019]. Signalling in the Common Kestrel: environmental regulation and function of the melanin-based traits. National University of La Pampa, Santa Rosa (Argentina)

COMMUNICATION AT CONFERENCES

27. López-Idiáquez, D. et al. [2025]. *Testing the phenological thermal tracking hypothesis across space and species.* Hole-nesting bird conference. Olomouc, Czechia. [Talk]

26. López-Idiáquez, D. et al. [2025]. *Long-term decrease in body mass: insights from a wild great tit population.* Hole-nesting bird conference. Olomouc, Czechia. [Poster]

25. López-Idiáquez, D. et al. [2025]. *Testing the phenological thermal tracking hypothesis across space and species.* International Congress of the Spanish Society for Behavioural and Evolutionary Ecology. Sevilla, Spain. [Talk]

24. Porras, G. et al. [2025]. *Feathers under pressure: linking contour feather structure and land use intensification in dippers.* International Congress of the Spanish Society for Behavioural and Evolutionary Ecology. Sevilla, Spain. [Talk] *Communication by a MSc Student

23. Orozco, P. et al. [2025]. *Earlier reproduction with increasing temperature in the American kestrel: a response to climate change?* Raptor Research Foundation Meeting. San Jose, Costa Rica. [Talk]

22. Arrufat, P. et al. [2025]. *Using ddRADseq to explore the genomic landscape of serpentine habitation in three diploid plant species from the Iberian Peninsula.* ESEB Conference. Barcelona, Spain. [Poster]

21. Sandmeyer, L. et al. [2025]. *Dressed for survival: Does plumage colour predict survival in blue tits?* ESEB Conference. Barcelona, Spain. [Talk]

20. Arrufat, P. et al. [2025]. *Genomic adaptation to serpentine soils in three diploid plant species from southern Spain: Insights from ddRADseq data analysis.* Evolution Conference. Athens, US. [Talk]

19. López-Idiáquez, D. et al. [2024]. *Phenological plasticity enables six decades of thermal homeostasis in a wild bird population.* BES Conference. Liverpool, UK. [Talk]

18. Orozco, P. et al. [2024]. *Adelanto de la reproducción con el incremento de la temperatura en el Halconcito colorado: ¿Una respuesta al cambio climático?* Reunión Argentina de Ornitología. Miramar de Ansenusa, Argentina. [Talk]

17. López-Idiáquez, D. et al. [2024]. *Optimal thermal niche-tracking buffers wild great tits against effects of climate change.* ISBE Conference. Melbourne, Australia. [Talk]

16. López-Idiáquez, D. et al. [2023]. *Temperature and precipitation are associated with plumage colour complexity in the Paridae.* EOU Conference. Lund, Sweden. [Talk]

15. Sandmeyer, L. et al. [2023]. *Temporal trends of breast colouration in urban and rural great tits (Parus major).* EOU Conference. Lund, Sweden. [Poster]

14. López-Idiáquez, D. et al. [2022]. *Long-term decrease in colouration: a consequence of climate change?* Trends in Biodiversity and Evolution: The Biology of Colour. Porto, Portugal. [Talk]

13. López-Idiáquez, D. et al. [2022]. *Sex-dependent integration of ornamentation, personality, morphology and life-history.* ISBE conference, Stockholm, Sweden. [Talk]

12. López-Idiáquez, D. et al. [2022]. *Long-term decrease in colouration: a consequence of climate change?* Hole-nesting bird conference. Oxford, UK. [Talk]

11. Fernandez-de-Simon et al. [2021]. *Robust interaction between predator pressure and disease prevalence during the peak phase of a rodent species with cyclic demography: a large-scale replicated experiment.* WDA & EWDA joint conference. Cuenca, Spain. [Talk]

6. López-Idiáquez, D. et al. [2016]. *Age and environmental influences on the melanin-based colouration in the Common Kestrel.* ChronoBird Network Meeting. Valencia, Spain. [Talk].

5. López-Idiáquez, D. et al. [2016]. *Longer post-fledgling periods increase juvenile survival reducing future parent reproduction.* ISBE conference. Exeter, UK. [Talk].

4. López-Idiáquez, D. et al. [2015]. *The use of bromadiolone to control vole outbreaks is passed on non-target species: implications for conservation policies.* European vertebrate pest management conference. Sevilla, Spain. [Talk]. *Selected as best student talk of the conference

3. López-Idiáquez, D. et al. [2015]. *The role of melanin-based colouration in female-female competition in the Common Kestrel.* EOU conference. Badajoz, Spain. [Talk].

2. López-Idiáquez, D. et al. [2014]. *Divergent patterns of age and environmental dependence in two melanin-based traits in male Common Kestrels.* SEO/Birdlife conference. Madrid, Spain. [Poster].

1. López-Idiáquez, D. et al. [2014]. *Within-individual age variation of two melanin-based traits convey different information in adults of Common Kestrel.* ASAB Easter meeting. Sheffield, UK. [Poster].

SMALL TALKS

7. **López-Idiáquez, D.** [2025]. *Phenological thermal tracking at the European level*. University of Oxford
 6. **López-Idiáquez, D.** [2023]. *Buffering the effects of change: phenotypic adjustment to climate change as a case of habitat selection*. University of Oxford
 5. **López-Idiáquez, D.** [2023]. *Environmental conditions and bird colouration*. University of Oxford
 4. **López-Idiáquez, D.** [2023]. *Environmental conditions as a driver of ornamental colourations: the role of climate change*. University of the Basque Country
 3. **López-Idiáquez, D.** [2021]. *Providing longer post-fledgling periods increases offspring survival at the expense of future fecundity*. CEFE-CNRS
 2. **López-Idiáquez, D.** [2016]. *Melanin-based colouration and personality during growth*. Natural History Museum of Madrid
 1. **López-Idiáquez, D.** [2013]. *Age effects in the expression of a melanin-based trait in the Common Kestrel*. Natural History Museum of Madrid
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STUDENT SUPERVISION

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| 2025 | <i>Coupar-Evans, J. MSc.</i> University of Oxford. <i>Co-supervision with B.C. Sheldon</i> <i>Porrás, G. MSc.</i> University of the Basque Country. <i>Co-supervision with I. de Guzman</i> |
| 2022-2026 | <i>Arrufat, P. PhD.</i> University of the Basque Country. <i>Co-supervision with P.B. Pearman</i> |
| 2022-2025 | <i>Sandmeyer, L. PhD.</i> University of Montpellier. <i>Main supervisors C. Doutrelant and A. Gregoire. I played an informal supervisor role, being involved in the development and design of two chapters of the thesis.</i> |
| 2021 | <i>Gonget, F. MSc.</i> University of Montpellier. <i>Co-supervision with C. Doutrelant and A. Gregoire</i> |

TEACHING

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| University of Oxford 2025-2026 | Tutorials: " <i>Animal personality and pace-of-life syndromes</i> ". (7 hours) " <i>On the function and evolution of bird (and animal) colouration</i> ". (3 hours) " <i>From genetic changes to phenotypic plasticity: changes in trait expression as a response to climate change and other human related stressors</i> ". (3 hours) Demonstration: " <i>Wytham MBiol introduction: Long-term population studies of birds</i> ". For: Prof Ben C. Sheldon. [6 hours] Demonstration: " <i>Avian morphology: feathers and comparative skeletal morphology</i> ". For Prof Sonya Clegg. [12 hours] |
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PEER REVIEW AND PROJECT EVALUATION

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| Reviewer for | Heredity, Journal of Animal Ecology, Behavioural Ecology and Sociobiology, Behavioural Ecology, Journal of Evolutionary Biology, Ibis, Journal of Zoology, Journal of Raptor Research, Ecosistemas, Revista Catalana d'Ornitologia, BMC Ecology and Evolution |
| Project evaluation | Member of the British Ecological Society review college since 2024 - 9 projects evaluated |

OTHER MERITS

Awards

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| 2021 | Winner of the British Ecological Society photo contest in the Individuals and Populations category. |
| 2020 | Shortlisted for the British Ornithologists Union blog awards: <i>The dark side of the nestling: darker nestlings display bolder personalities, but only if they are female</i> |
| 2015 | Best talk by a PhD student in the X European Vertebrate Pest Management Conference. |

Workshops and training

2015 SQuID: *How to use simulations to understand and study the biology of variance*. Hameau de l'Etoile, Montpellier, France.

Analytical experience

Extensive experience handling long-term ecological datasets, including the >75-year Wytham Woods great tit dataset and the >18-year Montpellier blue tit dataset.

Experience fitting multivariate, phylogenetic and animal models in a Bayesian framework (e.g. using MCMCglmm or brms)

Fieldwork experience

Extensive experience working with birds (passerines and raptors) in the wild, including nest-box population monitoring, adult capture and ringing (both in the nest and using mist nets). Experience drawing blood and other samples for physiological analyses.

Licences

Full driving license

Languages

Spanish: Mother tongue - English: Council of Europe level CEFR C2

Thesis external reviewer

2024 Daniel Parejo. *Empirical Challenges to Signalling Models of Nestling Begging Behaviour*. University of Castilla La Mancha.

2021 Justine Le Vaillant. *The Evolutionary Dynamics of Laying Date in the Pied Flycatcher*. University of Sevilla.

Conference organisation

2018 International congress of the Spanish Society for Behavioural and Evolutionary Ecology
Mieres (Spain)

2017 I Scientific Meeting of the National Natural History Museum of Madrid
Madrid (Spain)

PERSONAL INFORMATION

At the personal level, I consider myself an easy-going person. In addition to science, I also enjoy nature photography, natural history and science dissemination. Besides, I enjoy spending my free time road cycling, birding, running, climbing mountains and reading (mostly when it rains).