

CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	David		
Family name	Serrano Larraz		
Gender (*)	Male	Birth date (dd/mm/yyyy)	15/11/1971
Social Security, Passport, ID number	DNI 25157777D		
e-mail	serrano@ebd.csic.es	URL Web	
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-6205-386X		

(*) *Mandatory*

A.1. Current position

Position	Científico Titular		
Initial date	01/10/2009		
Institution	CSIC		
Department/Center	Conservation Biology	Estación Biológica de Doñana	
Country	SPAIN	Teleph. number	(34)600609534
Key words	Animal ecology, conservation biology, demography, population dynamics, ornithology		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
01/05/1998 - 28/02/2002	PhD student / EBD-CSIC / Spain
01/03/2002- 19/06/2002	Research activity interruption
20/06/2002 - 31/01/2004	Temporary contract / EBD-CSIC / Spain
01/05/2004 - 31/04/2005	Postdoctoral fellowship / IMEDEA (UIB-CSIC) / Spain
01/05/2005 - 31/03/2007	Hired doctor I3P / EBD-CSIC / Spain
01/04/2007- 30/04/2009	Hired doctor Excelencia Project Junta Andalucía/ EBD-CSIC / Spain
01/05/2009 - 30/09/2009	Ramón y Cajal / Universidad de Granada / Spain

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Graduate in Biology	Universidad de Navarra / Spain	1995
Doctor of sciences	Universidad Autónoma de Madrid / Spain	2003

(Include all the necessary rows)

Part B. CV SUMMARY (max. 5000 characters, including spaces)

I am a terrestrial ecologist that is interested in the generation, maintenance and conservation of biological diversity. My research has focused mainly on two major lines: (1) the consequences of environmental variation on population patterns, including spatial structure and distribution, habitat use and selection, demography and population dynamics of animals, almost always from an applied and conservation perspective; and (2) evolutionary ecology of host-symbiont associations, addressing multiple questions ranging from symbiont distribution within hosts to macroevolutionary patterns of symbiont diversification. My most applied work has dealt with conservation problems of steppe birds and birds of prey, especially in relation to dispersal, habitat loss and fragmentation and, more recently, aimed at mitigating the impact



of human infrastructures (renewable energy facilities, power lines). This implies a multidisciplinary perspective encompassing demography and population dynamics, behavioral ecology, spatial and movement ecology, conservation genetics, ecophysiology and ecotoxicology, so I routinely work with researchers from different fields. Overall, I have participated in 16 national or international projects and 18 contracts and agreements (15 as Principal investigator, totaling more than 400,000 euros). I have published 99 SCI papers (60% Q1) which have received more than 5055 citations (h-index 41, google scholar), 3 non-SCI articles, 20 book chapters, and 21 popular science articles. I have also contributed with 52 presentations at professional meetings, congresses and conferences, and I am author of 40 technical reports for companies, governments and NGOs (28 as first author). I have an extensive network of international collaborations that has involved 60 researchers from 21 countries. I am supervising or have supervised 6 PhD students, 10 MSC students and 2 post-docs. All of them are still engaged in research work today, and the two postdoctoral fellows have obtained a permanent position. I am member of the editorial board of *Scientific Reports* and *Population Ecology*. From 2008, I am professor in the Master and postgraduate program on Biodiversity and Conservation Biology at Universidad Pablo de Olavide, and I have been member of the tribunal of 19 PhD theses and 24 MSC final projects. Since 2016, I collaborate as reviewer of projects for the Ministry of Science (first for ANEP and then for AEI). I regularly review for 40 scientific journals and I am a member of the Scientific Committee of two LIFE programs of the European Union. I find important to emphasize my commitment to biodiversity conservation and the transfer of scientific information to managers and practitioners. In addition to the numerous agreements and contracts with administrations, I am part of the working group of steppe birds of the Junta de Andalucía and I have participated in advisory work on these birds for the Ministry of Environment. Moreover, for the last two years I have been heavily involved in advising environmental consultancies and companies, especially in relation to the development of renewables and the compensatory measures associated with their authorization. Finally, I have contributed to three audiovisual projects of scientific dissemination, and the repercussion of my work in the media includes interviews and reports in *The Guardian*, *ABC*, *El País*, *La Vanguardia*, *Público*, *Radio Nacional de España*, *La Cope*, *Radio Exterior*, *Quercus*, *National Geographic*, *Conservation Magazine* and *El Heraldo de Aragón*.

Part C. RELEVANT MERITS (*sorted by typology*)

C.1. Publications (*see instructions*)

Serrano, D. 2018. Dispersal in raptors. Pp 95-121, In JH Sarasola, JM Grande & JJ Negro (Eds.), *Birds of Prey. Biology and Conservation in the XXI Century*. Springer, Switzerland. ISBN 978-3-319-73744-7

Morant, J. (AC), Arrondo, E., Sánchez-Zapata, J.A., (...) Serrano, D. and Pérez-García, J.M. 2024. Fine-scale collision risk mapping and validation with long-term mortality data reveal current and future wind energy development impact on sensitive species. *Environmental Impact Assessment Review* 104: 107339. 15 authors (14/15)

Serrano, D. (AC), Margalida, A., Pérez-García, (...). and Donázar, J.A. 2020. Renewables in Spain threaten biodiversity. *Science* 370: 1282-1283. 23 authors (1/23)

Serrano, D. y Tella, J.L. 2012. Lifetime fitness correlates of natal dispersal distance in a colonial bird. *Journal of Animal Ecology* 81:97-107 doi: 10.1111/j.1365-2656.2011.01878.x

Serrano, D. y Tella, J.L. 2007. The role of despotism and heritability in determining settlement patterns in the colonial lesser kestrel. *American Naturalist* 169: E53-E67.

Serrano, D., Oro, D., Ursúa, E. y Tella, J.L. 2005. Colony size selection determines adult survival and dispersal preferences: Allee effects in a colonial bird. *American Naturalist* 166: E22-E31

Serrano, D., Forero, M.G., Donázar, J.A. y Tella, J.L. 2004. Dispersal and social attraction affect colony selection and dynamics of lesser kestrels. *Ecology* 85: 3438-3447.

Serrano, D., Tella, J.L., Donázar, J.A. y Pomarol, M. 2003. Social and individual features affecting natal dispersal in the colonial lesser kestrel. *Ecology* 84: 3044-3054.

Serrano, D. y Tella, J.L. 2003. Dispersal within a spatially-structured population of lesser kestrels: the role of spatial isolation and conspecific attraction. *Journal of Animal Ecology* 72: 400-410.



Serrano, D., Tella, J.L., Forero, M.G. y Donázar, J.A. 2001. Factors affecting breeding dispersal in the facultatively colonial lesser kestrel: individual experience vs. conspecific cues. *Journal of Animal Ecology* 70: 568-578

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

Morant, J., Arrondo, E., Sánchez-Zapata, J. A., Donázar, J. A., Cortés-Avizanda, A., De La Riva, M., Blanco, G., Martínez, F., Oltra, J., Carrete, M., Margalida, A., Oliva-Vidal, P., Martínez, J. M., Serrano, D., Pérez-García, J. M. Poster. Large-scale movement patterns in a social vulture are influenced by seasonality, sex, and breeding region. Congreso Español de Ornitología. Menorca, 9-13 noviembre 2022.

Serrano, D. Invited conference. Evaluación de impacto ambiental de renovables en Aragón en áreas con alondra ricotí. IV Workshop Grupo de Expertos en la Alondra Ricotí. Celebrado Online debido a COVID-19. 9 de julio de 2021.

Serrano, D., Álvarez, A. y Urmeneta, A. Invited conference. Agricultura y comunidades de aves: una aproximación experimental al uso del espacio. III Jornadas Técnicas de la Reserva de la Biosfera de Bardenas Reales de Navarra. Aguilares, Bardenas Reales, Febrero de 2013.

Serrano, D., Oro, D., Ursúa, E. y Tella, J.L. Oral presentation. The use of multistate capture-recapture models to estimate survival and dispersal within fragmented populations of steppe birds: the case of the Lesser kestrel. Internacional Symposium on Ecology and Conservation of Steppe-Land Birds. Lleida, 03-07 de Diciembre de 2004. Centre Tecnològic Forestal de Catalunya.

Serrano, D. Invited conference. Condicionantes de la dispersión en una población fragmentada de cernícalo primilla. XVI Jornadas Ornitológicas Españolas. Salamanca, 5-9 de Diciembre de 2002. SEO/BirdLife.

Negro, J.J., Tella, J.L., Donázar, J.A., Hiraldo, F. & Serrano, D. Oral presentation. Status and conservation of lesser kestrels populations in Spain. 4th Eurasian Congress of Raptors. Sevilla, 25-29 Septiembre de 2001. Estación Biológica de Doñana.

Serrano, D., Tella, J.L., Forero, M.G. y Donázar, J.A. Oral presentation. El Papel de la experiencia individual y de los indicadores coespecíficos en la dispersión del Cernícalo primilla. VIII Congreso Nacional y V Iberoamericano de Etología. Granada, 12-15 de Septiembre de 2000. Departamento de Biología Animal y Ecología, Universidad de Granada.

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

1. Energías renovables y biodiversidad: seguimiento de poblaciones de aves carroñeras y mantenimiento de servicios ecosistémicos en relación al desarrollo de parques eólicos.

IP: José Antonio Donázar and David Serrano.

Funding: 252.363,00€. Suproject within the Project I+D+I "Diseño, validación e implementación de una red de seguimiento del papel de la biodiversidad y los servicios ecosistémicos en ambientes antropizados en Andalucía", within the framework of the Complementary Biodiversity I+D+I plan, financed by the recovery and resilience mechanism (rrm).

Duration: 21/01/2024 - 30/09/ 2025.

2. Conciliando energía renovable y biodiversidad: análisis de rasgos vitales, patrones de vuelo y riesgo de colisión de fauna en parques eólicos (PID2020-113808RA-I00) "Proyectos I+D+i" 2020 - Modalidad "Retos investigación" -Proyecto tipo A (JIN)

Research team member. Responsible for: hypothesis formalization, mortality data curation, life history modelling, repowering analysis, flight pattern modelling, predictive crash risk modelling, model validation, dissemination of results.

Funding: 51.510 € IP: Juan Manuel Pérez García.

Duration: 01/06/2021 – 31/05/2023

3. The bird-feather mite ecological network: the role of phylogeny, diet and endosymbiotic bacteria (CGL2015-69650-P). Programa Estatal de Fomento de la Investigación Científica y Técnica de Excelencia, Subprograma Estatal de Generación de Conocimiento.

IP: David Serrano & Roger Jovani.



Funding: 127.400 €.

Duration: 2016-2019.

4. Efectos de la fragmentación del hábitat sobre la ecología y conservación de la avifauna esteparia andaluza: una aproximación multidisciplinar Proyecto de Excelencia RNM1274. Consejería de Innovación, Ciencia y Empresa, Junta de Andalucía. IP: José Luis Tella.
Research team member. Responsible for: formalization of hypotheses, fieldwork design, statistical analysis, manuscript writing, dissemination of results.
Funding: 124.000 €
Duration: 2006-2008

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any

1. Uso del espacio y selección del hábitat de caza del cernícalo primilla en la planta solar fotovoltaica La Isla. Entidades participantes:
Estación Biológica de Doñana, CSIC - Novasol Invest La Isla, S.L.
IP: David Serrano.
Funding: 12.230 €.
Duration: 30/10/2023 - 30/10/2024.
The purpose of this project is to examine the use of space by lesser kestrels in a small colony located in the vicinity of a solar photovoltaic plant in the province of Seville.
2. Obtención de bioindicadores sobre el estado de conservación de las poblaciones de aves esteparias de las Bardenas Reales de Navarra.
Estación Biológica de Doñana, CSIC - Comunidad de Bardenas Reales.
IP: David Serrano.
Funding: 19.724,21 €.
Duration: 01/01/2018 - 31/12/2018.
The objective of this project was to quantify patterns of territory use and habitat selection by the Dupont's lark, an endangered steppe bird, through radio-tracking.
3. Efectos ecológicos de la urbanización y del uso recreativo en espacios protegidos.
Referencia: CSIC 20162718.
Junta de Extremadura - Estación Biológica de Doñana.
IP: Alejandro Rodríguez
Funding: 467.246 €
Duration: 06/06/2016 - 05/06/2019
This contract with the Regional Government of Extremadura assessed the environmental effects of an urbanization on a protected area of the Natura 2000 Network.
4. Elaboración de un manual técnico sobre la biología, conservación y manejo del Cernícalo primilla.
Junta de Andalucía - Estación Biológica de Doñana.
IP: José Luis Tella and David Serrano
Duration: January 2002-December 2002
Under this contract I coordinated and partially wrote a manual on lesser kestrel biology and conservation (<https://www.juntadeandalucia.es/servicios/publicaciones/detalle/45576.html>)
5. Seguimiento, dinámica poblacional y propuestas de medidas de conservación para la población de Cernícalo primilla de Aragón.
Gobierno de Aragón – Estación Biológica de Doñana
IP: José Luis Tella y David Serrano
Duration: January 2000-December 2003
Collaboration agreement to monitor, diagnose the conservation status, and propose conservation measures for the lesser kestrel in the mid Ebro valley.