



CURRICULUM VITAE (CVA)

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

Part A. PERSONAL INFORMATION

CV date	21/11/ 2021
---------	-------------

First name	Juan Francisco		
Family name	Beltrán Gala		

(*) Mandatory

A.1. Current position

Position	Profesor Titular de Universidad (Permanent)		
Initial date	20/01/2004		
Institution	University of Seville		
Department/Center	Zoology	http://departamento.us.es/dfba/	
Country	Spain	Teleph. number	
Key words	Animal Ecology/Herpetology/Fauna conservation/Mammalogy		

A.2. Previous positions (research activity interruptions, art. 14.2.b))

Period	Position/Institution/Country/Interruption cause
2000-2003	Profesor Asociado/University of Seville

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed Biol. Sciences	University of Seville	1981
Ph.D. Biol. Sciences	University of Seville	1988

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

Awarded 6-year research terms: **4** (last in 2017)

Direction of doctoral thesis: **3** (2013, 2014 y 2020)

Total citations: **913** (44 documents in WOS); **1883** Google Scholar(636 since 2016), 104 documents.

Average citations/year: **100,7 (2012-2021)** in Google Scholar.

Average citations/paper: 22,3 (WOS)

Publications in first quartile (Q1): **18**

h-Index: **17 WOS** (in Google Académico: **22**; **i10-Index: 38**)

Scientific contributions and relevance

Selected from the four main research lines during my career: Conservation Biology of carnivores, Bioacoustics of anurans, Thermal physiology of amphibians and Evolutionary biology of anfibians.



- 1- **J.F. Beltrán**, J.E. Rice, and R.L. Honeycutt. 1996. Taxonomy of the Iberian lynx. **Nature** 379: 407-408. Impact Factor:

This work was conducted during the postdoctoral stay (Grants from NATO and Ministerio Ed. Ciencia) in Texas A&M University. It was proposed, led and financed in part thanks to the instalation grant of the Ministry of Education. In that momento was critical to determine if the Iberian Lynx was or not a species or just a subspecies, because that status had implications in its conservation. This study had a great relevance not only because of be published in perhaps the scientific journal of highest impact but because it helped to boosted a European strategy (including several LIFE Programs) for the recovery and conservation of the Iberian lynx populations.

- 2- H. Duarte, M. Tejedo, M. Katzenberger, F. Marangoni, D. Baldo, **J.F. Beltrán**, D.A. Martí, A.. Richter-Boix, and A. González-Voyer. 2012. Can amphibians take the heat? Vulnerability to climate warming in subtropical and temperate larval amphibian communities. **Global Change Biology**, 18: 412-421.

This paper was part of the Ph.Diss. of M. Katzenberger, predoctoral fellow from FCT Portugal, and financed in part by a National Project (Ministerio de Ciencia e Innovación, CGL2008-04814-C02-02, período 2008-2011) led by myself. It is one of the first published works, and surely the one with higher citations, from the research line on thermal physiology of amphibians.

- 3- R. Márquez, **J.F. Beltrán**, D. Llusia, M. Penna, and P.M. Narins. 2016. Synthetic rainfall vibrations evoke toad emergence. **Current Biology**, 26 (24): R1270-1271.

This part of the research line on Bioacoustics of anurans (with implications on their evolutionary biology too). This research was initaly driven with the Ph.Diss. of D. Llusia, predoctoral fellow of the Ministry of Education, asigned to a project). It was developped and continued through several national research project (TEMPURA (CGL2005-00092/BOS), ACOURA (CGL2008-04814-C02), TATANKA (CGL2011-25062, IP: R. Márquez), two of them in the las 10 years.

- 4- Rodríguez-Rodríguez, E., **J.F. Beltrán**, M. Tejedo, A.G. Nicieza, D. Llusia, R. Márquez, and P. Aragón. (2020). Niche models at inter and intraspecific levels reveal hierarchical niche differentiation in midwife toads. **Scientific Reports**, 10:10942. Impact Factor:

This paper is one of the outcomes of the research line on Evolutionary biology of amphibians. The approach was already suggested by, and use genetic information collected there, in a previous national research Project (POPURA: CGL2008- 04814-C02-02-BOS, IP: Juan F. Beltrán). This paper was part of the Ph.Diss. of E. Rodriguez-Rodriguez (Dec.2020, Universidad de Sevilla).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- 1- M. Katzenberger, H. Duarte, R. Relyea, **J.F. Beltrán**, and M. Tejedo (2021). Variation in upper thermal tolerance among 19 species from temperate wetlands. **Journal of Thermal Biology**, 96: 102856. <https://doi.org/10.1016/j.jtherbio.2021.102856>
- 2- I. Monedero, J. Barbancho, R. Márquez, and **J.F. Beltrán** (2021). Cyber-Physical System for Environmental Monitoring based on Deep Learning. **Sensors**, 96: 102856.
- 3.- Rodríguez-Rodríguez, E., **J.F. Beltrán**, M. Tejedo, A.G. Nicieza, D. Llusia, R. Márquez, and P. Aragón. (2020). Niche models at inter and intraspecific levels reveal hierarchical niche diferentiation in midwife toads. **Scientific Reports**, 10:10942. <https://doi.org/10.1038/s41598-020-67992-6>.
- 4.- Rodríguez-Rodríguez, E. **J.F. Beltrán**, E.H. El Mouden, T. Slimani, R. Márquez, and D. Donaire-Barroso (2020). Climate change challenges IUCN conservation priorities: A test with western Mediterranean amphibians. **Springer-Nature Applied Sciences**, 2 (2):1-11. <https://doi.org/10.1007/s42452-020-2002-2>)



- 5.- Rodriguez-Rodriguez, E. **J.F. Beltrán**, and R. Márquez (2020). Melanophore metachrosis response in amphibian tadpoles: effect of background color, light and temperature. **Amphibia-Reptilia**, 1-8. <https://doi.org/10.1163/15685381-bja10032>
- 6.- R. Márquez, **J.F. Beltrán**, I. Pita-Vaca, M.A. Samlali, A. S´Khifa, T. Slimani, H. El Mouden (2018). Release calls of Moroccan Spadefoot Toad, *Pelobates varaldii* (Anura, Pelobatidae). **Amphibia-Reptilia**, 39: 369-374.
- 7.- J. Jacob, J.Figuerola and **J.F.Beltrán** (2017). Vertebrate pest management: Research for science-based solutions. **Pest Management Science**, 73: 271-272.
- 8.- R. Márquez, **J.F. Beltrán**, D. Lluvia, M. Penna and P.M. Narins (2016). Synthetic rainfall vibrations evoke toad emergence. **Current Biology**, 26 (24): R1270-1271.
- 9.-A. Boscaini, DML. Alba, **J.F. Beltrán**, S. Moyá-Solá, and J. Madurell-Malapeira (2016). Latest Early Pleistocene remains of *Lynx pardinus* (Carnivora, Felidae) from the Iberian Peninsula: Taxonomy and evolutionary implications. **Quaternary Science Reviews**, 143: 96-106.
- 10.- G. Dias, **J.F. Beltrán**, M.Tejedó, M. Benítez, E. González-Miras,N. Ferrand and H. Gonçalves (2015). Limited gene flow and high genetic diversity in the threatened Betic midwife toad (*Alytes dickhilleni*): evolutionary and conservation implications . **Conservation Genetics**, 16: 459-476.
- 11.- D. Llusia, R. Márquez, **J.F. Beltrán**, M. Benítez, and J.P. Amaral. (2013). Calling behaviour under climate change: intraspecific and seasonal variation of calling temperatures in ectotherms. **Global Change Biology**, 19: 2655-2674.
- 12.- D. Llusia, R. Márquez, **J.F. Beltrán**, C. Moreira, J.P. do Amaral (2013). Environmental and social determinants of anuran lekking behaviour: intraspecific variation in populations at thermal extremes. **Behavioural Ecology and Sociobiology**, 67: 493-511.
- 13.-H. Duarte, M.Tejedó, M. Katzenberger, F. Marangoni, D. Baldo, **J.F. Beltrán**, D.A. Martí, A.. Richter-Boix, and A. González-Voyer (2012). Can amphibians take the heat? Vulnerability to climate warming in subtropical and temperate larval amphibian communities. **Global Change Biology**, 18: 412-421.
- 14- A. Arias, R. Márquez, D. Llusia, **J.F. Beltrán**, T. Slimani, M. Radi, A. Fattah and H. El Mouden. (2012). Effects of the temperature on the song parameters of the Moroccan bushcricket *Eugaster spinulosa* (Orthoptera, Tettigoniidae). **Bioacoustics**, 22: 1-14.
- 15- M. Katzenberger, M. Tejedó, H. Duarte, F. Marangoni, and **J.F. Beltrán** (2012). Tolerância e sensibilidade térmica em anfíbios. **Revista da Biologia**, 8:25-32.

C.2. Congress

I have presented communications in more than 70 international and national conferences. I have organized in collaboration with other researchers three international conferences:

- XIV Congreso Luso-Español de Herpetología –XV Congreso Español de Herpetología HERPETOLOGICA 2010 : <http://herpetologica2010.unicongress.org/>, 19 al 22 septiembre del 2012
- I Congreso Internacional de Innovación Docente Universitaria en Historia Natural INNATUR 2012: <http://congreso.us.es/innatur2012/>.
- X European Vertebrate Pest Conference (EVPMC 2015: <http://www.evpmc.org/>), : 21-25 septiembre del 2015.

C.3. Research projects

As Principal Researcher (PI): 6 (shown only those since 2011)
As part of research team. 17

As Principal researcher:

1- PROJECT: Intra and interspecific variations in the biology of anurans. Influence of climatic change. MICIN (Plan Nacional I+D+i, 2008-2011), CGL2008-04814-C02-02/BOS. 2008-2010. -90.750 euros



2- PROJECT: The bridge between Europe and Africa as determinant of the diversification processes of Iberian-Magrebian herpetofauna. Project FEDER, Junta de Andalucía. 2022-2023. 80.000 euros.

As researcher:

3-PROJECT: Adaptive value of the receptors for vibration of substrate in the vestibular acoustic system in amphibians. Ministerio de Ciencia e Innovación, Plan Nacional I+D+i , CGL2011-25062. 2012-2014. IP: Rafael Márquez (Museo Nal. Ciencias Naturales, CSIC, Madrid)

4-PROJECT. A macrophysiological evaluation of the vulnerability to global warming. Analysis of the thermal tolerances in amphibians along latitudinal and altitudinal gradients. Ministerio de Economía y Competitividad, Plan Nacional, Ref. CGL2012-4024-6-C02-01. 2013-2015. IP: Miguel Tejedo (E.B. Doñana, CSIC).

C.4. Contracts, technological or transfer merits

Outreach publications: some 15 (including publications in national magazines such as Quercus, Investigación y Ciencia, Trofeo, Panda, Froglog, etc).

I am the organizer and scientific director of an ongoing **exposition on “Natural History in Seville”** (Mammals and Human Evolution). Located in the Center of Research, Technology and Innovation (CITIUS I) building (University of Seville). To be inaugurated soon by the Rector of Univ. Seville, it is expected to be visited by students (elementary, high school, university) and general public interested in natural history.

Direction of doctoral thesis:

1- **“Intensity of anurans sound emissions and their transmission in natural environments. Implications for the acoustic monitoring systems”**. By: Diego Llusia Genique. Universidad Autónoma de Madrid. F. de Biología.: December 2013. (Co-director.: Rafael Márquez, CSIC). Ph.D. Extraordinary Award.

2- **“Comparative analysis of locomotor thermal performance in larval and juvenile stages in frogs. Implications of global warming”**. By_ Marco Katzenberger. Universidad de Sevilla. Facultad de Biología. December 2014 (Co-director Dr. Miguel Tejedo, CSIC)

3- **Evolution of environmental niche of amphibians in Western Mediterranean and conservation implications**. By: Eduardo J. Rodríguez Rodríguez .Universidad de Sevilla, Facultad de Biología. December 2020.

Reviewer of Scientific Journals

The Journal of Wildlife Management, Journal of Mammalogy, Ecoscience, Acta Zoologica Mexicana, Doñana Acta Vertebrata, Miscelánea Zoológica, Animal Conservation, Wildlife Research, The Science of the Total Environment, Land

Guest Editor

For “LAND” Special Issue: “Wildlife Protection and Habitat Management: Practice and Perspectives” [https://www.mdpi.com/journal/land/special_issues/wildlife_protection=](https://www.mdpi.com/journal/land/special_issues/wildlife_protection)

External reviewer of Research Projects for National agencies

External reviewer of research projects (2009 call) for the Foundation (FCT) from Portugal, Biological Sciences Commission (SubÁrea: Biodiversity, Ecology and Conservation). Since 2017 is expert reviewer for the Agencia Estatal de Investigación (Biología Fundamental y de Sistemas).