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www.paleobiogeography.org (under construction)

Biologist specialized in analyzing species distribution and extinction events during the Quaternary, using macroecological approaches, species distribution models, GIS tools and large palaeontological and current biodiversity data sets.

I am interested in studying the evolution of species and communities from a macroecological point of view. I have started my scientific career as a palaeontologist and I have done my thesis analysing the European distribution of the spotted hyenas during the Quaternary and the relationships between the former climatic and biotic changes and the large mammal's extinction event occurred at the end of the Pleistocene. I use Idrisi, Arc-view and Diva-GIS in my daily work and I use R and Statistica for doing my species distribution models and my analysis. I want to continue analyzing the impacts of climate changes and geographic constrains in the evolution of life systems, and for that reason, I think that working in your lab with your team would be a great opportunity for my scientific carrer.

Education

- 2010. Thesis: “Aplicación de los modelos de distribución de especies hacia el pasado. Análisis de la distribución y extinción las poblaciones europeas de hiena manchada (*Crocuta crocuta* (Erxleben, 1777)) durante el Pleistoceno” Universidad Autónoma de Madrid (deposited on December, 2010)
 - 2005. Master thesis: “Paleoecología de macromamíferos del yacimiento de Camino, Pinilla del Valle (Madrid)”. Universidad Complutense de Madrid. Maximum qualification.
 - 2003. Biology. Universidad de Vigo, Spain.
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Scientific career:

- 2009 - present: Museo Nacional de Ciencias Naturales – GBIF Spain.
 - 2008 - 2009: Predoctoral grant. Fundación Atapuerca/Fundación Duques de Soria
 - 2006: Two months research fellowship at the Museum d’Histoire Naturelle/Institut de Páleontologie Humaine, Paris.
 - 2005: Two months research fellowship at the Natural History Museum, London.
 - 2004 - 2008: Fellowship at the Museo Nacional de Ciencias Naturales, Madrid.
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Language skills

- iBT-TOEFL Calification: 107. January, 2010.
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Publications (peer reviewed papers)

- **Varela, S.**, Lobo, J. M., Hortal, J. (*in press.*) The use of species distribution model methodologies to predict the past distribution of species.
- **Varela, S.**, Lobo, J. M., Rodríguez, J. and Batra, P. (2010). Were the Late Pleistocene climatic changes responsible for the disappearance of the European spotted hyena populations? *Quaternary Science Reviews*, 29: 2027-2035.

- **Varela, S.**, Lobo, J. M. and Rodríguez, J. (2010). Are herbivores and spotted hyena extinctions at the end of the Pleistocene related? *Zona Arqueologica*, 13: 76-91
 - **Varela, S.**, Lobo, J. M. and Rodríguez, J. (2010). The influence of climatic changes on the extinction of the spotted hyena (*Crocuta crocuta* Erxleben 1777) in the Iberian peninsula. *Zona Arqueologica*, 13: 68-75.
 - **Varela, S.**, Rodríguez, J. and Lobo, J. M. (2009). Is current climatic equilibrium a guarantee for the transferability of distribution model predictions? A case study of the spotted hyena. *Journal of Biogeography*, 36(9): 1645-1655.
 - Bermúdez de Castro J.M., Carbonell E., Gómez A., Mateos A., Martín-Torres M., Muela A., Rodríguez J., Sarmiento S. and **Varela, S.**(2006). Paleodemografía del hipodigma de fósiles de homínidos del nivel TD6 de Gran Dolina (Sierra de Atapuerca, Burgos): estudio preliminar. *Estudios Geológicos*, 62: 145-154.
 - Rodríguez, J., **Varela, S.** and Nieto, M. (2004). Ecological structure of the Turolian (Upper Miocene) mammalian communities from Teruel (Spain). Actas de las XX Jornadas de la Sociedad Española de Paleontología.
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Book chapters:

- Nieto, M., Hortal, J., Martínez-Maza, C., Morales, J., Ortiz-Jaureguizar, E., Pelaez-Campomanes, P., Pickford, Prado, J. L., Rodríguez, J., Senut, B., Soria, D. and **Varela, S.** (2005) Historical determinants of mammal diversity in Africa: evolution of Mammalian body mass distribution in Africa and South America during Neogene and Quaternary times, pp. 287-295. *In: African Biodiversity-Molecules, Organism, ecosystems* (Bernhard A. Huber, Bradley J. Sinclair and Karl-Heinz Lampe, eds.). Springer Science.
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Conferences and Workshops (selection)

- 2009: 1ª Reunión de científicos sobre cubiles de hiena (y otros grandes carnívoros) en los yacimientos arqueológicos de la Península Ibérica. Alcalá de Henares, Spain.
 - 2008: Biodiversity Informatics and Climate Change Impacts on Life. Aarhus, Denmark.
 - 2007: III International Conference of the International Biogeography Society, Tenerife, Spain.
 - 2007: A New Research Agenda for Palaeoecology and Macroecology. Noudar, Portugal. 2007
 - 2007: Paleoecología humana: nuevos avances. II Seminario Internacional de la Cátedra Atapuerca. Burgos, Spain.
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Palaeontological field work

- 2008: El Caño, Uruguay. (Pleistocene palaeontological fossil site).
 - 2007: Maltravieso, Cáceres, Spain. (Pleistocene archaeopalaeontological fossil site).
 - 2006: Dmanisi, Republic of Georgia. (Pleistocene archaeopalaeontological fossil site).
 - 2004 - 2006: Atapuerca, Burgos, Spain. (Pleistocene fossil site).
 - 2003 - 2005: Pinilla del Valle, Madrid, Spain (Pleistocene fossil site).
 - 2003: Verdeña, Palencia, Spain. (Carboniferous site)
 - 2003: Valle del Río Martín, Teruel, Spain (Cretaceous site).
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Specialized courses (selection)

- 2010: Ecological Models. Sven Jørgensen. Universidad Pablo Olvide, Sevilla, Spain.
- 2009: Statistics with R. L. Carrascal. Museo Nacional de Ciencias Naturales, Madrid.
- 2009: Ecological Models. Paulo de Marco. U. Alcalá de Henares, Spain.
- 2009: Ecological Models. Jordi Bascompte. U. Alcalá de Henares, Spain.
- 2008: GIS. Universidad Politécnica de Madrid, Spain.

2008: Historical Biography. Daniel Brooks. MNCN, Madrid.

2007. Spatial Data Analysis in Macroecology. A. Diniz-Filho. Denmark.

References:

Jorge Miguel Lobo

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