

Curriculum Vitae

Personal information

First names / Surnames **Pedro Jorge Paixão Leitão**
Address Baerwaldstrasse 46, 10961, Berlin, Germany
Telephone Mobile: (+49-176) 67 34 69 00
E-mail p.leitao@geo.hu-berlin.de
Nationality Portuguese
Date of birth 09.11.1974
Gender Male

Occupational field **Academic / Researcher**

Work experience

Dates	February 2010 - present
Occupation or position held	Researcher
Main activities and responsibilities	Scientific activities and research within the Department, particularly in the project "EnMAP Toolbox - Weiterentwicklung einer Softwareumgebung zur Prozessierung und Analyse von Bilddaten des Satelliten EnMAP"
Name and address of employer	Geomatics Lab, Geography Department, Humboldt Universität zu Berlin, Germany
Type of business or sector	Academic / University
Dates	May 2009 - present
Occupation or position held	Researcher
Main activities and responsibilities	Scientific activities and research within the project "DIKO - Untersuchung der Dichte und Kohärenz von Landschaftselementen im Freistaat Sachsen"
Name and address of employer	Department of Conservation Biology Department, Biodiversity and Terrestrial Ecosystems Division, Helmholtz Centre for Environmental Research - UFZ, Germany Department of Computational Landscape Ecology, Computational Environmental Systems Division, Helmholtz Centre for Environmental Research - UFZ, Germany
Type of business or sector	Research Centre
Dates	September 1999 - present
Occupation or position held	Researcher
Main activities and responsibilities	Execution of several national and international research projects, including the European project "BioAssess - Biodiversity Assessment Tools, Identifying indicators to assess the impact of European policies on biodiversity" (EVK2-CT199-00041); "STEPPEBIRD - a multiscale study of habitat selection by steppe birds in Portugal" (NERC ARSF); and "BustardMap - Modelling the distribution of suitable habitat for Great Bustards in Europe"
Name and address of employer	Centre of Applied Ecology "Prof. Baeta Neves" (CEABN), Institute of Agronomy, Technical University of Lisbon, Portugal
Type of business or sector	Academic / Research Centre
Dates	July 2009 - January 2010
Occupation or position held	Visiting Researcher
Main activities and responsibilities	Scientific activities and research within the Department
Name and address of employer	Geomatics Lab, Geography Department, Humboldt Universität zu Berlin, Germany
Type of business or sector	Academic / University
Dates	March 2009 - July 2009
Occupation or position held	Researcher
Main activities and responsibilities	Postgraduate and undergraduate teaching; scientific activities and research within the Department
Name and address of employer	Geomatics Lab, Geography Department, Humboldt Universität zu Berlin, Germany

Type of business or sector	Academic / University
Dates	March 2008 - February 2009
Occupation or position held	Visiting Researcher
Main activities and responsibilities	Scientific activities and research within the project "Multi-scale remote sensing for describing steppe bird biodiversity"
Name and address of employer	Geomatics Lab, Geography Department, Humboldt Universität zu Berlin, Germany
Type of business or sector	Academic / University
Dates	2000 - 2003
Occupation or position held	Research Assistant
Main activities and responsibilities	Execution of several national and international research projects, including the project "LU-CES - Land Use - Coastal Ecosystem Study" in collaboration with the Skidaway Institute of Oceanography, University System of Georgia, Savannah, Georgia, U.S.A., funded by NOAA - National Oceanographic and Atmospheric Administration
Name and address of employer	Guia Marine Laboratory, Faculty of Sciences, University of Lisbon, Portugal
Type of business or sector	Academic / Research Centre
Dates	1999 - 2002
Occupation or position held	Researcher
Main activities and responsibilities	Execution of several research projects, including the project "Competition ability and resource dynamics in coastal dune ecosystems: invasive vs. native plant species" (POCTI/BSE/34689/2000)
Name and address of employer	Museum and Botanical Garden of the University of Lisbon, University of Lisbon, Portugal
Type of business or sector	Academic / Research Centre

Education and training

Dates	2005 - 2009
Title of qualification awarded	PhD in Environmental Sciences
Principal subjects/occupational skills covered	Applied ecology; ecological modelling; advanced statistics; remote sensing and spatial data analysis; laser scanning (LiDAR) and multispectral data analysis; field spectroscopy; teaching and demonstrating at the postgraduate level.
Name and type of organisation providing education and training	Centre for Environmental Sciences, University of Southampton, UK Funded by FCT - (Portuguese) Foundation for Science and Technology (SFRH/BD/12569/2003)
Dates	2003 - 2004
Principal subjects/occupational skills covered	Postgraduate studies in Applied Ecology; teaching and demonstrating at the undergraduate level.
Name and type of organisation providing education and training	School of Biological and Environmental Sciences, University of Stirling Funded by FCT - (Portuguese) Foundation for Science and Technology (SFRH/BD/12569/2003)
Dates	1999 - 2000
Title of qualification awarded	Master of Sciences (MSc) in Environmental Remote Sensing
Principal subjects/occupational skills covered	Geo-computation; advanced digital image processing; environmental management; landscape ecology
Name and type of organisation providing education and training	Department of Geography, University of Aberdeen, UK Funded by the European Social Fund (ESF) and through a partial fund from the Faculty of Social Sciences and Law
Dates	1992 - 1997
Title of qualification awarded	Licenciante degree in Biology Applied to Animal Resources
Principal subjects/occupational skills covered	Ecology; animal ecology; plant ecology; evolutionary ecology; numerical ecology; zoogeography; remote sensing; coastal management
Name and type of organisation providing education and training	Faculty of Sciences, University of Lisbon, Portugal
Dates	2nd - 7th of September 2007

Place	Superior Institute of Statistics and Management, New University of Lisbon, Lisbon, Portugal
Training course	Advanced Training Course in Land Remote Sensing
Principal subjects/occupational skills covered	Synthetic Aperture Radar (SAR); optical / thermal remote sensing
Name and type of organisation providing education and training	European Space Agency (ESA)
Dates	31st of October 2006
Place	SANA Lisboa Park Hotel, Lisbon, Portugal
Training course	Forest cover characterisation with satellite imagery
Principal subjects/occupational skills covered	Image classification; image segmentation
Name and type of organisation providing education and training	Remote Sensing Group, Portuguese Geographical Institute
Dates	30th of June - 2nd of July 1999
Place	SIGTE - Geographical information systems and remote sensing service, University of Girona, Girona, Spain
Training course	II Advanced course of Idrisi 2.0 - Integration of Idrisi with AutoCAD, ArcView, CartaLinx and graphic formats
Principal subjects/occupational skills covered	GIS data management and compatibility
Name and type of organisation providing education and training	Idrisi Resource Centre Spain; Idrisi Resource Centre Costa Rica; Clark Labs, Clark University, U.S.A.

Personal skills and competences

Mother tongue(s) **Portuguese**

Other language(s)/ Self-assessment

European level

English

Spanish

German

French

Italian

	Understanding		Speaking				Writing	
	Listening	Reading	Spoken interaction		Spoken production		Writing	
English	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user	C2 Proficient user	
Spanish	C2 Proficient user	C2 Proficient user	C1 Proficient user	C1 Proficient user	C2 Proficient user	C2 Proficient user	B1 Independent user	
German	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user	C1 Proficient user	B1 Independent user	
French	B2 Independent user	C1 Proficient user	B2 Independent user	C1 Proficient user	C1 Proficient user	C1 Proficient user	B1 Independent user	
Italian	B1 Independent user	B1 Independent user	A2 Basic user	A2 Basic user	A2 Basic user	A2 Basic user	A1 Basic user	

Social skills and competences

Communication skills: I have participated in several scientific meetings, national and international conferences, workshops and technical meetings, as well as delivered training and (undergraduate and postgraduate) teaching.

Intercultural skills: I have a large work experience in international projects and have conducted short missions (in several countries).

Participative skills: I have carried out volunteer work with various environmental and development institutions and non-governmental organisations (in several countries).

Associative skills: I am a member of several professional associations and non-governmental organisations (see below); and during my first degree I have been an active member of the elected students' association of the Faculty of Sciences of the University of Lisbon.

Adaptability skills: My professional background ensured me a good aptitude for fieldwork (in hard physical conditions) and for working in multidisciplinary teams.

Organisational skills and competences	<p>In the summer of 1994, I organised a student volunteer programme for nature vigilance at the Peneda-Gerês National Park, Portugal.</p> <p>From 2003 to 2008, during my doctoral studies, I was in charge of the work coordination between the Universities in the U.K. and the hosting institution in Portugal.</p> <p>During the spring of 2006, I co-organised several campaigns (field spectroscopy, ornithology, vegetation, etc.) to support the STEPPEBIRD airborne survey (NERC/ARSF, U.K.), including the CAE (Censo de Aves Estepárias), an extensive field survey on the steppe birds of Castro Verde, Portugal.</p>
Technical skills and competences	<p>Large experience in the analysis and processing of remote sensing data: multi-spectral and thermal satellite imagery at several resolutions; multi-spectral airborne imagery and laser altimetry data; stereoscopy and interpretation of aerial photography (b/w, false colour and true colour); digital terrain models; field spectroscopy and groundtruthing.</p> <p>Spatial data analysis: univariate and multivariate methods, non-parametric statistics, computer intensive and machine learning techniques.</p> <p>Good fieldwork skills in: remote sensing, ornithology, herpetology, vegetation cartography, coastal oceanography and intertidal ecology; all-terrain driving and navigational skills; Global Positioning System (GPS) and Differential GPS (DGPS)</p>
Computer skills and competences	<p>Operating systems: MS Windows, Ubuntu Linux, Unix and Sun Sparc</p> <p>Office: MS Office, Open Office, Adobe Acrobat</p> <p>GIS and DIP: ArcGIS, ArcView, ArcInfo, ArcExplorer, Clark Labs Idrisi, Erdas Imagine, RSI ENVI, ImageSVM, Clark Labs Cartalinx, Azimuth Systems Agzcorr, Transcoord Pro, GEONpoints2grid, Mobile Mapper Office, Map Source, Waypoint+</p> <p>Statistical analysis: R, S-Plus, SPSS, Statistica, Minitab, SigmaStat, Golden Software Surfer, MaxEnt, Biomapper, GeoDa, Fragstats, Geonamica Map Comparison Kit, ROC Plot</p> <p>Imaging, graphics and editing: Adobe Photoshop, Paint Shop Pro, Sigma Plot, Golden Software Grapher, Corel Draw Graphics Suite</p>
Artistic skills and competences	Capoeira teacher (Professor) with thirteen years of practice and ten years of teaching experience
Other skills and competences	Birdwatching
Driving licence / Sailing licence	Category B, since 1993 / Local Skipper, since 2002

List of publications

Thesis:

Leitão, P.J.P. (2008). Improving species distribution models to describe steppe bird occurrence patterns and habitat selection in southern Portugal. Doctoral Thesis. Faculty of Engineering, Sciences and Mathematics, University of Southampton.

Leitão, P.J.P. (2000). Ikonos and aerial photography scale landscape metrics for modelling farmland bird populations. Master of Sciences Thesis. Faculty of Social Sciences and Law, University of Aberdeen.

Leitão, P.J.P. (1997). Calculation of the tidal prism of the Mira estuary, through the use of remote sensing techniques. Licenciatura Report. Faculty of Sciences, University of Lisbon.

Books and chapters:

Osborne, P.E. & **Leitão, P.J.** (*in press*). Species approaches to conservation in biogeography, In Blumler, M., MacDonald, G., Millington, A. & Schickhoff, U. (Eds.) Handbook of Biogeography. Sage Publications, London, UK.

Articles in peer-reviewed scientific journals:

Leitão, P.J., Moreira, F. & Osborne, P.E. (*accepted*). Effects of data sampling bias on habitat models of species distributions: a case-study with steppe birds in southern Portugal. *International Journal of Geographical Information Science*.

Osborne, P.E. & **Leitão, P.J.** (2009). Effects of misregistered data on species distribution models. *Diversity and Distributions*, 15: 671-681.

Moreira, F., **Leitão, P.J.**, Morgado, R., Alcazar, R., Cardoso, A., Carrapato, C., Delgado, A., Galdes, P., Gordinho, L., Henriques, I., Lecoq, M., Leitão, D., Marques, A.T., Pedroso, R., Prego, I., Reino, L., Rocha, P., Tomé, T. & Osborn, P.E. (2007). Spatial distribution patterns, habitat correlates and population estimates of steppe birds in Castro Verde. *Airo*, 17: 5-30.

Trainor, C.R. & **Leitão, P.J.** (2007). Birds of Ataúro Island, Timor-Leste (East Timor): further significant records. *Forktail*, 23: 155-158.

Sousa, J.P., Gama, M.M. da, Pinto, C., Keating, A., Calhã, C., Lemos, M., Castro, C., Luz, T., **Leitão, P.** & Dias, S. (2004). Effects of land-use on Collembola diversity patterns in Mediterranean landscape. *Pedobiologia*, 48: 609-622.

Articles in peer-reviewed proceedings books from international scientific meetings:

Leitão, P.J., Osborne, P.E. & Moreira, F. (2006). The use of large scale remote sensing and map data to determine steppe-land bird distributions in Baixo Alentejo, Portugal. Proceedings of the 25th International Ornithological Congress. *Journal of Ornithology*, 147 (5, Suppl.1): 201-202.

Andrade, F., Ferreira, M.A., Gomes, N., Melo, J.J. de, **Leitão, P.** & Pinto, M.J. (2005). Strategic Environmental Assessment in Tróia (Portugal), In Gomes, F.V., Pinto, F.T., das Neves, L., Sena, A. & Ferreira, O (Eds.) Proceedings of the First International Conference on Coastal Conservation and Management in the Atlantic and Mediterranean.

Sousa, J.P., Dias, S., Gama, M.M. da, Keating, A., Máguas, C., Paiva, M.R., Rego, F., Rufino, R., Serrano, A., Aguiar, C., Boppré, M., Calhã, C., Castro, C., **Leitão, P.**, Lemos, M.F., Natal-da-Luz, T., Mesquita, S., Neves, R., Pereira, P.G., Pinto, C., Reis, S., Santos, C. & Silva, L. (2003). BIOASSESS project – developing tools to assess biodiversity change in terrestrial systems, In Proceedings of the 1^o Colóquio da Flora e Fauna dos Montados.

Keating, A., da Gama, M.M., Calhã, C., Castro, C., Lemos, M.F., Natal-da-Luz, T., **Leitão, P.**, Dias, S. & Sousa, J.P. (2003). Macro-fauna biodiversity in a land-use intensification gradient, In Encontro Anual da Sociedade Portuguesa da Ciência do Solo.

Sousa, J.P., da Gama, M.M., Pinto, C., Calhã, C., Lemos, M.F., Castro, C., Natal-da-Luz, T., **Leitão, P.**, Dias, S. & Keating, A. (2003). Land use change and edaphic collembola biodiversity in Quercus suber stands, In Encontro Anual da Sociedade Portuguesa da Ciência do Solo.

Melo, J.J., Andrade, F., Afonso, J.R., **Leitão, P.**, Piedade, J. & Santana, P. (2003). Infozee – Information System for Management and Surveillance of the Exclusive Economic Zone, In Pinto, F.T. (Ed.) Good Practices in Coastal Zone Management and Coastal Defence, EUCC International Workshop, Faculdade de Engenharia da Universidade do Porto, 7th - 8th of June 2002. pp: 81-96.

Leitão, P.J., Morgado, R., Delgado, A. & Moreira, F. (2002). Influence of landscape metrics on bird populations of arable farmland in southern Portugal, In Chamberlain, D. & Wilson, A. (Eds.) Avian Landscape Ecology – Pure and applied issues in the large-scale ecology of birds, Proceedings of IALE (UK) Conference, Norwich, 10th - 13th of September, pp: 318-321.

Reviewer for international, scientific journals

Global Ecology and Biogeography; Ecography; *International Journal of Geographical Information Science*

Scientific workgroups

Member of the European Bird Census Council (EBCC) Spatial Modelling Workgroup

Other publications

Leitão, P. (2007). Ambiente (Timor-Leste) - caderno temático, INDE, Lisboa, Portugal.

Carvalho, M., **Leitão, P.** & Fonseca, P. (2000). O meio ambiente, LPN, Lisboa, Portugal.

Additional Information

Membership of Professional Associations and Non-Governmental Organisations:

Ordem dos Biólogos - Biologists Order (Portugal)

Sociedade Portuguesa para o Estudo das Aves - Portuguese Society for the Study of Birds (Portugal)

Liga para a Protecção da Natureza - Nature Protection League (Portugal)

Gesellschaft für Ökologie - Ecological Society of Germany, Austria and Switzerland

Participation in advanced workshops:

Extracting the truth: testing methods that address collinearity in environmental data. Kohren-Sahlis, Germany, 10th - 14th of December 2007

Advances in statistical modelling of faunal distribution: Global and local applications. Justus-Liebig-Universität Giessen, Giessen, Germany, 19th - 21st of November 2006

Little Bustard conservation in Alentejo. SPEA - Portuguese Society for the Study of Birds, Évora, Portugal, 6th - 7th of November 2006

International Workshop: Bustard Conservation in Europe in the last 15 Years – current trends, best practice and future priorities. SPEA, Lisbon, Portugal, 23rd - 25th of November 2005

Environment Workshop: Predictive Modelling of Species Distribution – New Tools for the XXI Century. International University of Andalucia and Doñana Biological Station, Baeza, Spain, 2nd - 4th of November 2005

Spatial aspects in biodiversity management: the Landscape Ecology perspective. APEP - Portuguese Association of Landscape Ecology and CEABN, Lisbon, Portugal, 24th of May 1999

Short international visits to protected & wilderness areas

Brazil | Chapada Diamantina BA, Lagoa Encantada BA (2009)

England | Fox Hole Heath (2004), Norfolk Broads, Titchwell (2004, 2005, 2006), Farlington Marshes (2005, 2006), Cley, Falkham, Keyhaven/Pennington, New Forest (2005, 2006, 2007), Holme (2007)

Germany | Schwarzwald (2003, 2004), Rheintal (2004), Lüneburger Heide (2006), Spreewald (2007), Märkische Schweiz (2008, 2009), Müggelsee (2008, 2009)

Hungary | Bükk, Hortobágy, Kiskunság (2006)

Morocco | Rif (2005, 2006), High-Atlas, Erg Chebbi, Hamada du Draa, Medium-Atlas, Ouarzazate, Valée du Dades (2006)

Norway | Øygarden, Voss (2004)

Scotland | Abernethy, Dinnet, Glenshee, Glen Tanar, Isle of Skye, Loch of Strathbeg, Orkney, Sands of Forvie / Meikle Loch, Ythan estuary (1999, 2000), Vane Farm (2003), Isle of Mull, Loch Leven, Loch Lommond, Shetland (2004)

Spain | Gredos (1995), Pirinéus, Marismas del Odiel, Tablas de Daimiel (1996), Monfragüe (1998, 2004), Picos de Europa (1999), Cabañeros, Doñana (2003), Cabo de Gata, Cazorla, Sierra Nevada (2005)

Timor-Leste | Ataúro, Ira lalaro, Jaco, Loré / Iliomar, Tasi Tolo, Tutuala (2005)

Turkey | Bosphorus, Cappadocia, Erciyes, Kocaçay Delta, Iznik Gölü, Manyas Gölü, Marmara Sea, Sultan Marshes, Uludağ (2004)

United States of America | Skidaway Island GA, Okefenokee Swamp FL (2002)

Wales | Dovey estuary, Gower, Ynys-hir (2005)

Berlin, 1st of February 2010