

# Curriculum vitae

## **Filipe Eduardo Parreiras Silva Dias**

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## **EDUCATION**

### **PhD in Forestry and Natural Resources**

2011 – 2015 Centro de Ecologia Aplicada "Prof. Baeta Neves", Instituto Superior de Agronomia, Universidade de Lisboa

Title: The role of forest certification for the conservation of biodiversity and sustainability of cork oak woodlands

Advisors: Doctor Miguel N. Bugalho (Center for Applied Ecology, Instituto Superior de Agronomia, Universidade de Lisboa) and Professor Jorge Orestes Cerdeira (Departamento de Matemática e Centro de Matemática e Aplicações, Faculdade de Ciências e Tecnologia, Universidade Nova de Lisboa)

### **Approved with Distinction and Honours**

### **MSc in Conservation Biology**

2007 – 2008 Faculty of Sciences of the University of Lisbon.

Final grade - "19 valores" (19/20).

Dissertation entitled "Multi-scale Analysis of Carnivores' Road Mortality Patterns: a Case Study with the Stone Marten and the Common Genet", analyses the influence of local and landscape scale variables on the patterns of road mortality of two carnivore species, the stone marten and the common genet.

Advisor: Professor Margarida Santos-Reis

### **Degree in Environmental Biology (Terrestrial variant),**

2003 – 2007 Faculty of Sciences of the University of Lisbon.

Final grade - “16 valores” (16/20).

## **PUBLICATIONS**

### **Published**

Acácio, V., **Dias, F.S.**, Catry, F. X., Rocha, M., Moreira, F., Landscape dynamics in Mediterranean oak forests under global change: understanding the role of anthropogenic and environmental drivers across species, *Global Change Biology*, Accepted, DOI: 10.1111/gcb.13487

**Dias, F. S.**, David L. Miller, Tiago A. Marques, Joana Marcelino, Maria C. Caldeira, J. Orestes Cerdeira, and Miguel N. Bugalho, 2016 “Conservation Zones Promote Oak Regeneration and Shrub Diversity in Certified Mediterranean Oak Woodlands.” *Biological Conservation* 195: 226–34.

Bugalho, M.N., **Dias, F.S.**, Briñas, B., Cerdeira, J.O., 2015. Using the high conservation value forest concept and Pareto optimization to identify areas maximizing biodiversity and ecosystem services in cork oak landscapes. *Agroforestry Systems*. \*Bugalho, M.N., Dias, F.S. **joint first authorship**

**Dias, F.S.**, Bugalho, M.N., Rodríguez-González, P.M., Albuquerque, A., Cerdeira, J.O., 2015. Effects of forest certification on the ecological condition of Mediterranean streams. *Journal of Applied Ecology* 52, 190–198.

**Dias, F.S.**, Bugalho, M.N., Orestes Cerdeira, J., João Martins, M., 2013. Is forest certification targeting areas of high biodiversity in cork oak savannas? *Biodiversity and Conservation* 22, 93–112.

### **In preparation**

Wenceslay, J.F., **Dias, F.S.**, Miller, D.L., Marques, T.A., The effects of bauxite mining on a population of chimpanzees in Guinea-Bissau. *American Journal of Primatology*

### **Reports**

Branco, O., Bugalho, M.N., Silva, L.N., Barreira, R., Vaz, P., **Dias, F.S.**, 2010. Hotspot Areas for Biodiversity and Ecosystem Services in Montado. WWF Mediterranean – Portugal/Centre for Applied Ecology Prof. Baeta Neves (CEABN), Lisbon.

## **STUDENT SUPERVISIONS**

**Berta Briñas García**, Erasmus Mundus MSc in Mediterranean Forestry and Natural Resources Management with Doctor Miguel N. Bugalho (CEABN/ISA). Thesis title: **“Mapping and identification of hotspots for biodiversity and ecosystem services in cork oak woodlands in Portugal”**.

## **INVITED LECTURES**

2012 - **“HABEaS WebGIS: Practical applications”** during the course “Evaluating ecosystem services for decision-making” in Instituto Superior Técnico, taught by Greg Verutes, Emily Mckenzie and Stacy Wolny from the Natural Capital Project

2014 - **“QGIS/Processing – How to use R in QGIS?”**, University of Évora

## **EMPLOYMENT HISTORY**

**Postdoctoral researcher at the Centro de Ecologia Aplicada Prof. Baeta Neves, Instituto Superior de Agronomia, Universidade de Lisboa**

July 2016 - Present

I am currently working 1) on developing models for matching ecosystem services' providers (forest managers practising sustainable forest management) with private companies that decided to invest on ecosystem services, 2) on developing biodiversity metrics to the developpment of sustainable management plans for Eucalyptus plantations and 3) on a literature review on the impacts of forest certification on the conservation of biodiversity and ecosystem services.

**Consultant at World Wide Fund for Nature (WWF) - Mediterranean Programme**

2010 – Present

I work as a GIS analyst and I am involved in the HABEaS Project ([www.habeas-med.org](http://www.habeas-med.org)). HABEaS stands for Hotspot Areas for Biodiversity and Ecosystem Services and is an online geographic information system that provides free access to data on biodiversity and ecosystem services. Currently it covers two countries, Portugal and Bosnia and Herzegovina. My responsibilities include processing and analysing GIS data and seeking partnerships with other entities.

I am also involved in other WWF projects, such as the “Green Heart of Cork project” which seeks to implement payments for ecosystem services in the Tagus river basin and “Promoting responsible forest management in Bosnia and Herzegovina”, which is funded by IKEA and seeks to implement Forest Stewardship Council (FSC) certification and map High Conservation Value Forests in Bosnia and Herzegovina. In both these projects I am responsible for identifying areas with high conservation value, both in terms of biodiversity and ecosystem services.

## **Research assistant at Faculty of Sciences of the University of Lisbon**

2008 – 2009

I worked as a research assistant in the project "Effectiveness of mitigation actions to reduce the negative impacts of highways", that was funded by BRISA "Auto-estradas de Portugal, SA". I was responsible for trapping and capturing stone martens (*Martes foina*) and used radio-tracking to monitor their movements in relation to a major highway in South Portugal. I was also responsible for building a geographic information system with the gathered data and for conducting the statistical analysis of the data (habitat selection and movement pattern analysis).

## **SHORT COURSES**

2008 - Workshop “**iSigll Introduction to Geographic Information Systems**” in the Department of Geology of the Faculty of Sciences of the University of Lisbon, using software Arcgis 9.2 (21 hours).

2008 – Course “**Introduction Geographic Information Systems**” in the Department of **Animal Biology of the** Faculty of Sciences of the University of Lisbon, using software Arcgis 9.2 (16 hours).

2008 – “**Mini-Course on Landscape Genetics**” in the National Museum of Natural History taught by Gilles Guillot (8 hours).

2008 - “**Workshp on Estimating Animal Abundance**” in the University of Évora, taught by Prof.Kenneth Pollock, Prof.Teodore Simmons e Prof.Jean-Dominique Lebreton (24 hours).

2012 - “**Introduction to linear mixed effects models and GLMM in R**”, Faculty of Sciences of the University of Lisbon, taught by Alain Zuur and Elena Ieno from Highland Statistics (40 hours)sass.

2012 - “**GIS analysis using QGIS**”, Faculty of Sciences of the University of Lisbon, taught by Giovanni Manghi of Faunalia Portugal.

## **SKILLS**

**Statistical analysis and programming in R** – I am familiar with GLM, GAM and mixed-effects models

**Mathematical optimization in R**, namely Pareto optimization

**Geographic Information Systems** data analysis (geoprocessing and raster analysis) using **free and open source software**, e.g. QGIS, GRASS GIS, SAGA GIS, GDAL/OGR and R (via rgdal, sp and geos packages). I also have some experience with PostGIS.

**Fieldwork experience** - I worked with mammal carnivores (trapping and radiotracking), conducted vegetation surveys (assessment of tree regeneration and forest structure) and assessed the ecological condition of streams using the Stream Visual Assessment Protocol (SVAP).

**Experience in working in international contexts**, acquired while working for WWF, specifically in the project “Promoting responsible forest management in Bosnia and Herzegovina” where I have had the opportunity of working with representatives from IKEA, from WWF Balkans and the University of Sarajevo.

I am a **Linux user** and aim to use only **free and open source for work**

## **LANGUAGES**

Portuguese: native speaker

English: fluent (speaking, reading, writing)

Spanish: intermediate (speaking, reading)

## **HOBBIES**

I enjoy hiking, bird watching and exercising.