

Melanie Köbel

Curriculum Vitae

Completo

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MELANIE KÖBEL

1. PERSONAL DETAILS AND CONTACTS

Full name: Melanie Köbel Batista

Citizen card: 13621585 8 ZY0 | **Emission:** Portuguese Republic

Nationality: Portuguese

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2. CURRENT POSITION AND SHORT DESCRIPTION

I'm a PhD student at the Centre for Ecology, Evolution and Environmental Changes, at the Faculdade de Ciências, Universidade de Lisboa, working in the eChanges group. Currently I'm collaborating in the projects [ChangeTracker](#), [AdaptForChange](#) and [LTER](#). My interests rely, in broad terms, in understanding the response of ecosystems to human-induced and environmental drivers, hopefully contributing to the knowledge on how ecosystems function and what are the effects of management. In particular, I have been studying plant communities, using a functional approach, in response to climate (mainly aridity) and management (such as grazing or reforestation practices). Most of these works have been conducted in the Montado ecosystem (an open oak woodland) in the southern, dryland, regions of Portugal. Recently, I have also participated in projects more related with pollution: using lichens to monitor levels of pollutants, and assessing the effects nitrogen deposition in the plant community of a bog ecosystem. In the future, I would like to further study the effects of aridity and grazing, as a source of nitrogen inputs in the Montado ecosystem. This would combine the study of climate, management and pollution impacts.

3. EDUCATION

3.1 ACADEMIC QUALIFICATIONS

MSc in Ecology and Environmental Management

Institution: Faculdade de Ciências, Universidade de Lisboa

Classification 16/20 | 120 ECTS

Date: September 2010 – February 2013

Thesis: *Searching for an ecological indicator based on plant functional diversity along a climatic gradient* – classification 18/20. <http://hdl.handle.net/10451/7837>

Degree in Biology

Institution: Faculdade de Ciências e Tecnologia, Universidade do Algarve

Classification 14/20 | 180 ECTS

Date: September 2007 – July 2010

Final project: *Avaliação do efeito de contaminantes na costa algarvia* – classification 17/20.

3.2 TRAINING

cE3c Advanced Course “Introduction to R”

cE3c Advanced Course “Soil Ecology”

cE3c Advanced Course “Applied methods in Community Ecology and Functional Ecology”

Date: June 2018 | Duration: 36 hours

Organized by: Centre for Ecology, Evolution and Environmental Changes

cE3c Advanced Course “Global and long-term effects of nitrogen on ecosystems”

Threats of nitrogen to air, greenhouse gases balance, ecosystems and soil, and long-term ecological studies.

Date: May 2017 | Duration: 88 hours

Organized by: Centre for Ecology, Evolution and Environmental Changes

cE3c Advanced Course “Hands On Functional Diversity: From Ecological Indicators to Ecosystem Services”

Theoretical bases; practical training in R software using own database; field demonstration on sampling methods.

Date: February 2017 | Duration: 36 hours

Organized by: Centre for Ecology, Evolution and Environmental Changes

Discipline “Numerical Ecology”

A statistics course of the Biology degree. 6 ECTS. Classification 14/20.

Date: September 2014 to January 2015 | 1 semester

Ministered by: Prof. Henrique Cabral and Prof. Filomena Magalhães, Faculdade de Ciências, Universidade de Lisboa.

CBA Advanced Course “Measuring Biodiversity: Obtaining data, assessing its quality and generating measures of different aspects of diversity”

Date: February 2014 | 36 hours.

Organized by: Centro de Biologia Ambiental, Faculdade de Ciências, Universidade de Lisboa

4. RESEARCH EXPERIENCE

4.1 PARTICIPATION IN R&D PROJECTS

LIFE Desert-Adapt - Preparing desertification areas for increased climate change

URL: <http://www.desert-adapt.it/index.php/en/>

Financed by: European Commission, LIFE Climate Change Adaptation, (Project N° LIFE16 CCA/IT/000011)

Project leader: Cristina Branquinho

Host institution: Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências da Universidade de Lisboa

Duration: 2017-2022

My role: Researcher

Environmental monitoring of dioxins, furans and metals in the vicinity of a hospital incinerator

URL: <http://ce3c.ciencias.ulisboa.pt/research/projects/ver.php?id=45>

Financed by: AmbiMed

Project leader: Cristina Branquinho

Host institution: Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências da Universidade de Lisboa

Duration: 2014-2019

My role: Researcher

ChangeTracker - Tracking climate change in drylands based on ecological indicators

URL: <http://ce3c.ciencias.ulisboa.pt/research/projects/ver.php?id=66>

Financed by: Fundação para a Ciência e Tecnologia (PTDC/AAG-GLO/0045/2014).

Coordinated by: Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências da Universidade de Lisboa

Duration: ongoing

My tasks: collaborate in the sampling of vegetation and soil of reforestations, laboratory analyses, data treatment, communications and manuscript preparation.

ILTER Montado - Long-term socio-ecological research and monitoring in a Mediterranean cultural landscape.

URL: <http://www.ltsermontado.pt/>

Financed by: Fundação para a Ciência e Tecnologia (LTER/BIA-BEC/0048/2009)

Coordinated by: Sociedade Portuguesa de Ecologia

Duration: ongoing

My tasks: in one core R&M station: vegetation sampling; decomposition experiments; data analysis; communication of results. and currently preparing a manuscript.

AdaptForChange – Improve the success of reforestation in semi-arid areas: adaptation to climate change scenario

URL: <http://echanges.fc.ul.pt/projetos/adaptforchange/index.html?id=42>

Financed by: EEA Grants – Program AdaPT

Coordinated by: Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências da Universidade de Lisboa

Duration: 2015-2016

My tasks: collaborate in the field sampling of vegetation and soil of reforestations, laboratory analyses of samples, data treatment, communications and manuscript preparation.

Soils remediation and impacts on human public health

Financed by: Private entity

Coordinated by: Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências da Universidade de Lisboa

Duration: 2013-2015

My tasks: conducting greenhouse and in-field experiments with pastures; laboratory elemental analysis of soil and plants.

DesertWarning - Modelling ecosystem structure and functional diversity as early-warning indicator of desertification and land-degradation – from regional to local level

URL: . <http://echanges.fc.ul.pt/projetos/DeserWarning/index.html>

Financed by: Fundação para a Ciência e Tecnologia (PTDC/AAC-CLI/104913/2008).

Coordinated by: Centre for Ecology, Evolution and Environmental Changes, Faculdade de Ciências da Universidade de Lisboa

Duration: 2012-2015

My tasks: vegetation and soil sampling; plant identification; traits measurements; communication of results, collaborate in manuscript preparation.

RED CONTAMAR – Red científica para la caracterización de los niveles de contaminación y la gestión sostenible de marismas de la región transfronteriza Portugal–España

Financed by: Program INTERREG (SP5. E101 /03 Interreg IIIA).

Coordinated by: Centre for Marine and Environmental Research

Duration: 2006-2008

My tasks: evaluation of the effects of contaminants in the Ria Formosa lagoon system using bioindicators: antioxidant enzymes and lipid peroxidation in two mollusk species.

4.2 GRANTS AWARDED FOR PROJECTS

PhD student grant with the Project “Tracking climate change impacts in Mediterranean ecosystems using ecological indicators of ecosystem structure and functioning”

Institution: Centre for Ecology, Evolution and Environmental Changes, Universidade de Lisboa

Supervisor: Doctor Cristina Branquinho; Co-supervisor: Doctor Alice Nunes

Date: March 2018 – February 2022

Funding: FCT Grant SFRH/BD/130274/2017

MSc Research Fellow for the Project AdaptForChange – Improve the success of reforestation in semi-arid areas: adaptation to climate change scenario

Institution: Centre for Ecology, Evolution and Environmental Changes, Universidade de Lisboa

Supervisor: Doctor Cristina Branquinho

Date: March 2015 – January 2017

MSc Research Fellow for the Project Soils remediation and impacts on human public health

Institution: Centre for Environmental Biology, Faculdade de Ciências, Universidade de Lisboa

Supervisor: Doctor Cristina Branquinho,

Date: October 2013 – January 2015

MSc Research Fellow for the Project DesertWarning- Modelling ecosystem structure and functional diversity as early-warning indicator of desertification and land-degradation – from regional to local level

Institution: Centre for Environmental Biology, Faculdade de Ciências, Universidade de Lisboa

Supervisor: Doctor Cristina Branquinho

Date: March – September 2013

Under-graduate Research Fellow for the Project RED CONTAMAR – Red científica para la caracterización de los niveles de contaminación y la gestión sostenible de marismas de la región transfronteriza Portugal–España

Institution: Centre for Marine and Environmental Research, Faculdade de Ciência e Tecnologia, Universidade do Algarve

Supervisor: Doctor Maria João Bebianno

Date: September 2008 – August 2009

4.3 MOBILITY GRANTS

Transnational Access to eLTER site Whim Bog, Scotland

Host: Centre for Ecology & Hydrology, Edinburgh, UK

Grant given by: eLTER H2020 – European Long-Term Ecosystem and Socio-Ecological Research Infrastructure

Objectives of the grant: conduct research with the project “Combined Nitrogen and Ozone deposition: plant community and physiology responses in a Scottish peat bog.”

Date: 16 July 2017 | 12 days

Transnational Access to eLTER site Whim Bog, Scotland

Host: Centre for Ecology & Hydrology, Edinburgh, UK

Grant given by: eLTER H2020 – European Long-Term Ecosystem and Socio-Ecological Research Infrastructure

Objectives of the grant: conduct research with the project “Plant community change and physiological stress in response to nitrogen deposition: a field fumigation experiment on a Scottish peat bog.”

Date: 18 July 2016 | 18 days

For an informal description of the visit, see the blog post:

<https://ssalter.blog/2016/12/07/plants-and-nitrogen-a-love-hate-relationship/>

COST ES 1104 “Desert Restoration Hub” Final Conference: “Restoration of Arid Lands and Combat of Desertification: From Science to Practice”, held in the University of Greenwich, London, UK

Grant given by: COST Action ES 1104, supported by the EU Framework Program Horizon2020

Objectives of the grant: cover the expenses to participate in the conference

Date: 30 March 2016 | 2 days

If you would like to see my talk:

<http://gre.cloud.panopto.eu/Panopto/Pages/Viewer.aspx?id=43ae1fa8-4061-4c39-b5f0-d949e19ac489>

COST ES 1104 “Desert Restoration Hub” Working Groups Meeting in Antalya, Turkey

Grant given by: COST Action ES 1104, supported by the EU Framework Program Horizon2020

Objectives of the grant: cover the expenses to participate in meeting

Date: 8 September 2015 | 3 days

COST ES 1104 “Desert Restoration Hub” Working Groups Meeting in Thessaloniki, Greece

Grant given by: COST Action ES 1104, supported by the EU Framework Program Horizon2020

Objectives of the grant: cover the expenses to participate in meeting

Date: 28 April 2015 | 3 days

Short-Term Scientific Mission

Host: Centre for Ecology and Hydrology, University of Freiburg, Germany

Grant given by: COST Action ES 1104, supported by the EU Framework Program Horizon2020

Objectives of the grant: learning a methodology to measure Isotopic Signature of soil water, with the project “Measurement of soil water balance with fast track Isotope field methods along a desertification gradient in the SE of Portugal”.

Date: 13-17 May 2013 | 5 days

5 PUBLICATIONS

Published papers with IF

- 6 Nunes A, Köbel M, Pinho P, Matos P, Costantini EAC, Soares C, de Bello F, Correia O & Branquinho C. 2019. Local topographic and edaphic factors largely predict shrub encroachment in Mediterranean drylands. *Science of the Total Environment* 657: 310-318
- 5 Soares C, Príncipe A, Köbel M, Nunes A, Branquinho C, Pinho P. 2018. Tracking tree canopy cover changes in space and time in High Nature Value Farmland to prioritize reforestation efforts. *International Journal of Remote Sensing* 39: 14, pp 4714-4726, DOI: [10.1080/01431161.2018.1475777](https://doi.org/10.1080/01431161.2018.1475777)
- 4 Listopad MCSC, Köbel M, Príncipe A, Gonçalves P, Branquinho C. 2018. The effect of grazing exclusion over time on structure, biodiversity, and regeneration of high nature value farmland ecosystems in Europe. *Science of The Total Environment* 610–611: 926-936, ISSN 0048-9697, DOI: [10.1016/j.scitotenv.2017.08.018](https://doi.org/10.1016/j.scitotenv.2017.08.018).

- 3 Teixeira D, Carrilho M, Mexia T, Köbel M, Santos MJ, Santos-Reis M, Rosalino, LM. 2017. Management of Eucalyptus plantations influences small mammal density: evidence from Southern Europe. *Forest Ecology and Management* 385: 25-34.
DOI: 10.1016/j.foreco.2016.11.009

- 2 Serrano HC, Köbel M, Palma-Oliveira J, Pinho P, Branquinho C. (in press) Mapping human exposure to multi-pollutants and from multiple sources using environmental biomonitors. *Journal of Toxicology and Environmental Health, Part A: Current Issues*, 80:13-15
DOI: 10.1080/15287394.2017.1286930

- 1 Nunes A, Köbel M, Pinho P, Matos P, de Bello F, Correia O, Branquinho C. 2017. Which plant traits respond to aridity? A critical step to assess functional diversity in Mediterranean drylands. *Agricultural and Forest Meteorology* 239: 176-184. DOI: 10.1016/j.agrformet.2017.03.007

Book chapters

Concostrina-Zubiri L, Molla I, Nunes A, Köbel M, Matos P, Bianconi N, Costantini E, Branquinho C. 2015. Responses and effects of Biological Soil Crusts in Drylands: the case study of Portugal. in Abreu, M. M., Figueiro, D., Santos, E. S. (Eds.). *O Solo na Investigação Científica em Portugal*. Lisboa, ISAPress, pp. 25-28.

Pinho P, Nunes A, Ramos A, Batista M, Mimo S, Cordovil C, Branquinho C. 2015. Mapping production of biomass by annual plants in Mediterranean evergreen woodlands: Portuguese woodlands. In: Barredo et al. *Mapping and assessment of forest ecosystems and their services – Applications and guidance for decision making in the framework of MAES*, Science for Policy report by the Joint Research Centre, EC. doi: 10.2788/720519

ebook

Nunes A, Köbel M, Príncipe A, Serrano HC, Soares C, Pinho P, Matos P, Vizinho A, Bastidas M, Roxo, MJ, Branquinho C. 2016. *Boas Práticas de reflorestação – Sector das Florestas em zonas semiáridas*. Fundação da Faculdade de Ciências da Universidade de Lisboa, Lisboa. 37pp.

Dissertation

Searching for an ecological indicator based on plant functional diversity along a climatic gradient. 2013. Dissertation for MSc in Ecology and Environmental Management. Faculdade de Ciências da Universidade de Lisboa. <http://hdl.handle.net/10451/7837>

Manuscripts in preparation

Mexia T, Jucker M, Paoli L, Köbel M, Nunes A, Felde V, Luna L, Essefi B, Karatas Y, Milliken S, Kotzen B. Priorities, difficulties and challenges of restoration in drylands: young researchers' perspectives.

Submitted to Journal of Applied Ecology - Köbel M, Listopad C, Príncipe A, Branquinho C. Long-term effects of grazing exclusion on shrub diversity and functional groups.

Nunes A, Köbel M, Tápiá S, Pinho P, Matos P, Ramos A, Pereira MJ, de Bello F, Correia O, Branquinho C. Functional diversity responds more consistently than species diversity to aridity.

6 COMMUNICATIONS IN SCIENTIFIC MEETINGS

6.1 AS 1ST AUTHOR

Oral communications

Köbel M, Nunes A, Príncipe A, Branquinho C, Alloza JA, Duguy B, Vallejo VR. 2019. *Land use, ecosystems and fire in the Mediterranean Basin*. 8th World Conference on Ecological Restoration, September 24–28, Cape Town, South Africa

Köbel M, Listopad C, Príncipe A, Nunes A, Branquinho C. 2019. *Is grazing exclusion an effective measure to improve tree regeneration and plant functional diversity in a cork oak woodland?* 15th European Ecological Federation Congress, July 29 – August 2, Lisbon, Portugal.

Köbel M, Nunes A, Príncipe A, Vizinho A, Serrano H, Soares C, Pinho P, Branquinho C. 2018. *Evaluating reforestations in drylands as an adaptation measure to a climate change scenario*. SER Europe Conference 2018 - Restoration in the Era of Climate Change, 9-13 September, Reykjavik, Iceland.

Köbel M, Nunes A, Banze A, Guambe G, Ribeiro N, Ribeiro-Barros A, Branquinho C. 2018. *Efeito das queimadas em 5 espécies arbóreas típicas do Miombo*. Conferência Internacional de Ambiente em Língua Portuguesa, XX Encontro da Rede de Estudos Ambientais de Países de Língua Portuguesa, XI Conferência Nacional do Ambiente, 8-10 May, Aveiro, Portugal.

Köbel M, Nunes A, Príncipe A, Vizinho A, Serrano H, Soares C, Pinho P, Branquinho C. 2017. *Evaluating past reforestations success to use forest as an adaptation strategy to a climate change scenario in Alentejo*. Encontro Nacional de Ecologia, 9-10 November, Lisbon, Portugal.

Köbel M, Listopad C, Gonçalves P, Príncipe A, Santos-Reis M, Branquinho C. 2016. *Plant functional traits after grazing exclusion in cork oak Montado*. World Congress Silvo-Pastoral Systems, Silvo-Pastoral Systems on a changing world: functions, management and people. 27-30 September, Évora, Portugal.

-Invited Speaker- Köbel M, Nunes A, Bianconi N, Külls C, Costantini E, Branquinho, C. 2016. *Plant diversity along a desertification gradient: the importance of soils*. COST Action ES1104

“Desert Restoration Hub” Final Conference “Restoration of Arid Lands and Combat of Desertification: From Science to Practice”. 30-31 March, London, UK.

Köbel M, Listopad C, Gonçalves P, Príncipe A, Santos-Reis M, Branquinho C. 2015. *Functional traits after grazing exclusion in the Montado*. 4º Congresso Ibérico de Ecologia – A Ecologia e os Desafios Societais, 16-19 June 2015, Coimbra, Portugal.

-Invited Speaker- Köbel M, Nunes A, Bianconi N, Costantini E, Külls C, Branquinho C. 2014. *Integrated use of soil physical and water isotope methods for ecohydrological characterization of desertified areas*. COST ES1104 Working Groups Meeting, Faculdade de Ciências, Universidade de Lisboa.

Posters

- 6 Köbel M, Nunes A, Príncipe A, Soares C, Pinho P, Branquinho C. 2016. *Evaluating the success of the reforestations with native species performed during last 50 years along a desertification gradient in Alentejo*. World Congress Silvo-Pastoral Systems, Silvo-Pastoral Systems on a changing world: functions, management and people. 27-30 September, Évora, Portugal.
Winner of the Best Poster Award.
- 7 Batista M, Nunes A, Tápia S, Pinho P, Correia O, Branquinho C. 2013. *Plant functional response along a climatic gradient in Mediterranean open woodland*. 14º Encontro Nacional de Ecologia SPECO / Encontro da Primavera APEP. 17-19 July, Bragança, Portugal.

6.2 AS CO-AUTHOR

Oral communications

Nunes A, Köbel M, Pinho P, Matos P, Correia O, Branquinho C. 2018. *Plant functional trait response to climate in Mediterranean drylands: contribution to restoration and combat Desertification*. SER Europe Conference 2018 - Restoration in the Era of Climate Change, 9-13 September, Reykjavik, Iceland.

Serrano HC, Köbel M, Jones M, van Dijk N, Dagosits U, Pinho P, Oliveira MA, Matos, P, Branquinho, C, Sutton MA. *Plant species performance along an ammonia gradient: uncovering the future of plant communities in a nitrogen-rich world*. International Long Term Ecological Research Network (ILTER) & 12th International Long-Term Ecological Research -East Asia and Pacific Regional Network (ILTER-EAP) Joint Conference, 14-17 Oct 2018.

Serrano HC, Príncipe A, Köbel M, Pinho P, Santos-Reis M, Branquinho C. *Pausa para o chá no Montado – decomposição da folhada em regimes diferentes de exclusão e de pastagens*. 16º ENE - Encontro Nacional de Ecologia da SPECO, ULisboa, Portugal. 9-10 Nov 2017.

Nunes A, Oliveira G, Mexia T, Köbel M, Pinho P, Correia O, Branquinho C (2016) *Restoration efforts across the Mediterranean Basin: from a silvicultural to an ecological restoration approach*; Ecological Restoration in Portugal. SER Europe Conference: Best Practice in Restoration, 22-26 agosto 2016, Freising, Germany

Serrano HC, Köbel M, Palma-Oliveira J, Pinho P, Branquinho C. 2016. *Mapping Environmental human exposure integrating multipollutants base dom biomonitors – a methodological approach*. International Conference on Occupational Environmental Toxicology, 21-23 June, Porto, Portugal.

Branquinho C, Príncipe A, Nunes A, Köbel M, Soares C, Pinho P. 2016. *Increasing the effectiveness of native forest regeneration and reforestation: towards climate-change adaptation in drylands*. European Geosciences Union General Assembly 2016, 17 – 22 April, Vienna, Austria.

Concostrina-Zubiri L, Molla I, Nunes A, Köbel M, Matos P, Bianconi N, Costantini E, Branquinho C. 2015. *Responses and effects of Biological Soil Crusts in Drylands: the case study of Portugal*. Symposium “O solo na Investigação Científica em Portugal”. 27 Novembro, Lisboa, Portugal.

Nunes A, Batista M, Príncipe A, Matos P, Pinho P, Mexia T, Oliveira G, Correia O, Branquinho C. 2015. *Improving the success of reforestation with native species on drylands*. Ecosystem services in Semiarid Transboundary Basins. Internacional Workshop, 24 June 2015, Universidade de Lisboa, Lisbon, Portugal.

Nunes A, Batista M, Príncipe A, Matos P, Pinho P, Branquinho C. 2015. *AdaptForChange project: identifying past good practices to adapt semiarid areas to the future*. 4º Congresso Ibérico de Ecologia (SPECO-AEET) - A Ecologia e os Desafios Societais. 16-19 June, Coimbra, Portugal.

Nunes A, Batista M, Tápia S, Pinho P, Matos P, Correia O, de Bello F, Branquinho C. 2015. *Drivers of plant taxonomic and functional diversity along an aridity gradient in savanna-like Mediterranean woodlands*. 4º Congresso Ibérico de Ecologia (SPECO-AEET) - A Ecologia e os Desafios Societais. 16-19 June, Coimbra, Portugal.

Listopad C, Batista M, Silva A, Branquinho C. 2014. *LiDAR-derived structural diversity indices as ecological indicators for managing semi-arid ecosystems at risk of desertification*. IUFRO 2014 World Congress “Sustaining forests, Sustaining people: The role of research”, 5-11 October, Salt Lake City, Utah, USA.

Nunes A, Batista M, Tápia S, Pinho P, Matos P, De Bello F, Correia O, Branquinho C. 2014. *Linking plant functional diversity to the provision of ecosystem services in Mediterranean drylands*. 1st CAPERmed meeting (Committee on Air Pollution Effects Research on Mediterranean Ecosystems), 3-4 July 2014, Lisboa, Portugal.

Nunes A, Batista M, Tápia S, Pinho P, Matos P, De Bello F, Correia O, Branquinho C. 2014. *Results of plant functional diversity*. COST ES1104 Training School 4 - Indicators of Desertification: early warning signs, 19 – 23 May 2014, Lisboa, Portugal.

Külls C, Nunes A, Köbel-Batista M, Branquinho C, Bianconi N, Costantini E. 2014. *Integrated use of soil physical and water isotope methods for ecohydrological characterization of desertified areas*. European Geosciences Union General Assembly 2014. 27 April - 02 May, Vienna, Austria.

Branquinho C, Pinho P, Ramos A, Pereira MJ, Nunes A, Batista M, Matos P, Silva A, Ferreira A, Rosário L & O. Correia. 2014. *Identifying tipping points in Mediterranean woodland ecosystem based on early warning ecological indicators*. CIRCLE-2 Conference on European Climate Change Adaptation. 10 - 12 March, 2014, Lisbon, Portugal.

Nunes A, Batista M, Tápia S, Matos P, Pinho P, de Bello F, Correia O, Branquinho C. 2014. *Plant functional diversity along a desertification gradient*. Workshop Desertification & Restoration. 25 February, Faculdade de Ciências da Universidade de Lisboa, Portugal.

Gonçalves P, Batista M, Listopad C, Silva A. 2014. *O sítio LTER Montado na Companhia das Lezírias: primeiros resultados*. Jornadas Companhia das Lezírias, 5 May 2014, Coruche, Portugal.

Branquinho C, Nunes A, Pinho P, Matos P, Batista M, Tápia S, Rosário L, Correia O. 2013. *Searching for early-warning indicators of global change: nitrogen pollution and climate change*. IUFRO 2013 - International Conference "Vegetation Response to Climate Change and Air Pollution – Unifying Evidence and Research across Northern and Southern Hemisphere, Jointly organized by: IUFRO Research Group 7*01*00 - "Impacts of air pollution and climate change on forest ecosystems" and 7*01*02 - Mechanisms of action and indicator development, 1-6 September 2013, Ilhéus, Bahia, Brazil.

Branquinho C, Pinho P, Nunes A, Matos P, Batista M, Silva A, Ferreira A, Rosário L. 2013. *Searching for universal early-warning indicators of desertification: anticipating tipping points at ecosystem level*. UNCCD 2nd Scientific Conference, Economic assessment of desertification, sustainable land management and resilience of arid, semi-arid and dry sub-humid areas, 9 - 12 April 2013 - Bonn, Germany

Posters

POSTER ÉVORA?

Branquinho C, Príncipe A, Nunes A, Köbel M, Soares C, Pinho P. 2016. Increasing the effectiveness of native forest regeneration and reforestation: towards climate-change adaptation in drylands. European Geosciences Union General Assembly, 17-22 April, Vienna, Austria.

Nunes A, Batista M, Tápia S, Pinho P, Correia O, Branquinho C. 2013. Plant functional response to desertification in semi-arid Mediterranean woodlands. IUFRO 2013 - International

Conference Vegetation Response to Climate Change and Air Pollution – Unifying Evidence and Research across Northern and Southern Hemisphere. Jointly organized by: IUFRO Research Group 7*01*00 - “Impacts of air pollution and climate change on forest ecosystems” and 7*01*02 - Mechanisms of action and indicator development, 1-6 September 2013, Ilhéus, Bahia, Brazil. **Winner of the Best Poster Award.**

Nunes A, Batista M, Tápia S, Pinho P, Correia O, Branquinho C. 2012. Plant functional response to desertification and land degradation in Mediterranean woodlands – contribution to restoration strategies. 4th International Ecosummit – Ecological Sustainability: restoring the planet’s ecosystem services. 30 September-5 October 2013, Columbus, Ohio, USA.

6.3 MEDIA

Appearance on television program “Biosfera”, episode 517, aired on RTP2, to talk about leguminous plants and climate change.

Date: 27 May 2016

The full episode: <https://vimeo.com/168324784>

7 OTHER SCIENTIFIC ACTIVITIES

Member of SPECO – Sociedade Portuguesa de Ecologia (Portuguese Society for Ecology)

Date: since 2015.

Co-lecture to two 8th grade classes

A 45’ lecture about climate change scenarios and impacts in the Montado ecosystem.

Location: Escola Secundária de Mértola, Portugal.

Date: 8 April 2016

Support in field classes of the Plant Ecology course

Discipline of the MSc of Ecology and Environmental Management, ministred by Prof Otilia Correia, Prof Cristina Máguas and Prof Cristina Branquinho.

Location: Faculdade de Ciências, Universidade de Lisboa

Date: 8 hours during 2013/2014 and 8 hours during 2014/2015.

Monitoring a Green Roof

Part of the team responsible for periodical monitoring of plant diversity, soil moisture and temperature in a green roof with Sedum spp.

Location: Faculdade de Ciências, Universidade de Lisboa

Date: since February 2013

8 SKILLS

8.1 LABORATORY SKILLS

- **Spectrophotometric** techniques to quantify elements (ex. trace metals) and cellular damage indicators (enzymes and lipid peroxidation)
- Measurement of **soil pH and organic matter content** (Lost On Ignition method).
- I have large experience in common laboratory procedures such as **sample drying, grinding, centrifuging, acid digestion**.
- **Plant Identification** of Mediterranean herbs and shrubs

8.2 FIELD SAMPLING SKILLS

- **GPS manipulation**
- Measurement of **soil water content** (using Theta probe Soil Moisture Sensor)
- **Vegetation sampling** using Point-line intercept and Line intercept methods
- Extraction of **soil cores** and sampling in **soil profiles**
- Driving license - Vehicles of category B, B1

8.3 DATA MANIPULATION AND ANALYSIS

For statistical analysis of data I am familiar with **Statistica 11** and **R** with R Studio interface.

For spatial visualization and photography analysis (e.g. plant cover assessment) I use **ArcMap10**.

For daily data manipulation I use Microsoft Excel.

8.4 LANGUAGES

	Writing	Reading	Speaking
English	Good	Very good	Good
German	Reasonable	Reasonable	Reasonable