1. PERSONAL DATA

First name: M. Teresa
Family name: Boquete Seoane
Date of birth: 15th of October 1985
Place of birth: Santiago de Compostela (Spain)
ORCID ID: orcid.org/0000-0002-5886-7374
Researcher ID: B-7504-2015
URL Google Scholar profile: https://goo.gl/7NfD7Y
h-index: 7; **nº total cites**: 191
Current position: Marie S. Curie Postdoctoral researcher within the group of Ecology, Evolution and Plant-Animal Interactions at the Estación Biológica de Doñana (CSIC), and within the group of Ecological Genomics and Epigenetics in the Department of Integrative Biology at the University of South Florida (USF), USA, since July 2016.
Email address: teresa.boquete@gmail.com; teresaboquete@ebd.csic.es; boqueteseoan@mail.usf.edu

2. EDUCATION

2015. PhD Thesis. "*A critical evaluation of the use of the moss technique to monitor air pollution*" Final qualification: Outstanding Cum Laude. University of Santiago de Compostela (USC), Spain.

2010. Diploma of Advanced Studies. "*Analysis of the temporal variability of the concentrations of some elements in the terrestrial moss Pseudoscleropodium purum*" Final qualification: Outstanding. University of Santiago de Compostela (USC), Spain.

2008. Degree in Biology (Specialised in Environmental Biology). University of Santiago de Compostela (USC), Spain.

3. BRIEF SUMMARY

My research career begun in 2007 within the group of Ecophysiology and Ecotoxicology (Department of Cellular Biology and Ecology) at the University of Santiago de Compostela (Spain). I was awarded with a grant from the Xunta de Galicia (regional government) which enabled me to collaborate with research tasks related to air and water quality monitoring. I finished my degree in Biology in 2008, and continued my research career in the same department under the guidance of Professors Jesús R. Aboal and Ángel J. Fernández. I began my doctorate studies receiving a grant (again from Xunta de Galicia) that lasted from October 2008 until September 2009. During this year, I published my first article focused in the use of terrestrial mosses to monitor the atmospheric deposition of heavy metals (*Sci.Tot. Environ., 2009, 408: 153-162*). Afterwards, I received a grant from the Spanish Ministry to carry out my Doctoral Thesis (FPU fellowship: between October 2009 - September 2013) focused in the evaluation of the use of the passive moss biomonitoring technique to assess atmospheric heavy metals deposition. During the first half of this 4 years period I obtained my Diploma of Advanced Studies and published 3 new articles (*Sci.Tot.Environ., 2010, 408; 6291-6297; Environ. Exp. Bot., 2011, 72: 210-216; Atmos. Environ., 2011, 45: 2704-2710*). During this stage, I became a highly motivated, organised and enthusiastic researcher and received an intensive training in designing field and laboratory experiments, chemical determination of heavy metals and nutrients by means of atomic absorption spectrometry, basic use of geographic information systems, etc.

My predoctoral mobility consisted of two secondments abroad. The first one was in the Department of Biología Vegetale of the Universitá degli Studi di Napoli Federico II (Naples, Italy), under the supervision of Prof. Simonetta Giordano. I was awarded with a grant from the Spanish Ministry (FPU grant for short stays abroad) to make a 3-month stay where I was trained in the use of AFLP markers for the molecular characterization of bryophyte populations. My predoctoral mobility was complemented in 2014 with a 4 month stay developed under the supervision of Prof. Jonathan A. Shaw from the Department of Biology at Duke University (North Carolina, USA). In this case, I gained a grant from the Fundación Barrié de la Maza to make short stays abroad and I developed my own project to assess the existence of intraspecific morphological differences in terrestrial mosses as a result of pollution.

Between November 2013 – March 2015, I was hired by means of the Mossclone collaborative project (FP7-ENV.2011.3.1.9-1: Eco-innovation!) at the USC collaborating in the achievement of the goals of this project, in parallel with the development of my PhD.

I earned my PhD (April 2015), at the USC with which I have significantly contributed to science with the publication of 10 scientific manuscripts in international indexed journals ranked in the 1st quartile within Environmental Sciences, as well as with several contributions to international congresses. I have also contributed as a reviewer for several international indexed journals.

4. PUBLICATIONS IN INTERNATIONAL INDEXED JOURNALS

Nº	Year	Title	Short URL	Journal	Imp. Fact.	Journal Rank
16	2017	Do mosses exist out of Europe? A biomonitoring reflection	https://goo.gl/0Onvzk	Sci. Tot. Environ.	3.976	32/225
15	2017	Quantification of the overall measurement uncertainty associated with the passive moss biomonitoring technique: sample collection and processing	https://goo.gl/BmFF8H	Environ. Poll.	4.839	17/225
14	2016	Genetic structuring of the moss *Pseudoscleropodium purum* sampled at different distances from a pollution source	https://goo.gl/d5IDpQ	Ecotoxicology	2.329	81/225
13	2016	Trace element concentrations in the moss *Hypnum cupressiforme* growing in a presumably unpolluted area	http://goo.gl/LgRi2a	Chemosphere	3.340	39/223
12	2016	Significance of the intraspecific morphological variability in biomonitoring studies with mosses: among-populations and between-sexes approach	http://goo.gl/g2VbTv	Environ. Exp. Bot.	3.359	38/223
11	2016	Best options for the exposure of traditional and innovative moss bags: a systematic evaluation in three European countries	http://goo.gl/IDizKD	Environ. Poll.	4.143	17/221
10	2015	Response to comments on "A critical review of protocols for moss biomonitoring of atmospheric deposition: Sampling and sample preparation"	http://goo.gl/ZIeEhn	Sci. Tot. Environ.	4.099	18/221
9	2015	Relationship between trace element concentrations in the terrestrial moss *Pseudoscleropodium purum* and in bulk deposition	http://goo.gl/vnZEXt	Environ. Poll.	4.143	17/221
8	2015	A critical review of protocols for moss biomonitoring of atmospheric deposition: Sampling and sample preparation	http://goo.gl/IzDYIL	Sci. Tot. Environ.	4.099	18/221
7	2014	Effect of age on heavy metal concentration in segments of *Pseudoscleropodium purum* and the biomonitoring of atmospheric deposition of metals	http://goo.gl/dWqQtb	Atmos. Environ.	3.281	42/221
6	2014	Assessing the effects of heavy metal contamination on the proteome of the moss *Pseudoscleropodium purum* cross-transplanted between different areas	http://goo.gl/GyVeBo	Env. Sci. Poll. Res.	2.828	54/221
5	2013	Assessing the tolerance of the terrestrial moss *Pseudoscleropodium purum* to high levels of atmospheric heavy metals: A reciprocal transplant study	http://goo.gl/LdJERx	Sci. Tot. Environ.	3.163	40/216
4	2011	Are terrestrial mosses good biomonitors of atmospheric deposition of Mn?	http://goo.gl/5WnPLG	Atmos. Environ.	3.465	25/205
3	2011	Analysis of temporal variability in the concentrations of some elements in the terrestrial moss *Pseudoscleropodium purum*	http://goo.gl/YvBuCl	Environ. Exp. Bot.	2.985	40/205
2	2010	Is it possible to estimate atmospheric deposition of heavy metals by analysis of terrestrial mosses?	http://goo.gl/HWf9q3	Sci. Tot. Environ.	3.190	26/193

1	2009	Spatial structure of trace elements in extensive biomonitoring surveys with terrestrial mosses	http://goo.gl/BsFw8C	Sci. Tot. Environ.	2.905	32/179

5. PUBLICATIONS IN NATIONAL INDEXED JOURNALS

Nº	Year	Title	Short URL	Journal	Imp. Fact.	Journal Rank
1	2017	Empleo de criptógamas como herramienta ecológica de biomonitorización del depósito de nitrógeno en la península ibérica	https://goo.gl/wzAm6M	Ecosistemas		

6. PARTICIPACION IN RESEARCH PROJECTS

8. Title of research activity: Caracterización de metales pesados y análisis espaciotemporal de su distribución en la Red Autonómica de Biomonitorización de la Contaminación por Metales Pesados de La Rioja.
Main researcher: Javier Martínez-Abaigar
From: Gobierno de La Rioja
Quantity: 32,313€
Nº of participant researchers: 10
Lasting: 25/04/2014-15/12/2015
Kind of activity: Contract with a regional government
Participation: researcher

7. Title of research activity: Creating and testing a method for controlling the air quality based in a new biotechnological tool. Use of a devitalized moss clone as passive contaminant sensor
Main researcher: J. Ángel Fernández
From: VII PM-Cooperation
Quantity: 423,117 €
Nº of participant researchers: 6
Lasting: 1/04/2012-31/03/2015
Kind of activity: International Program
Participation: researcher

6. Title of research activity: ECOTOX. Consolidación e estruturación de unidades de investigación competitivas 2012
Main researcher: Alejo Carballeira
From: Consellería de Cultura, Educación e Ordenación Universitaria
Quantity: 200,000 €
Nº of participant researchers: 18
Lasting: 17/06/2012-31/11/2015
Kind of activity: Regional Plan
Participation: researcher

5. Title of research activity: Biomonitorización de la calidad del aire con musgos terrestres: estandarización y optimización metodológica
Main researcher: J. Ángel Fernández
From: 6 PN-Biología vegetal, animal y ecología
Quantity: 130,680 €
Nº of participant researchers: 7
Lasting: 1/01/2012-31/12/2014
Kind of activity: National Plan
Participation: researcher

4. Title of research activity: Caracterización y análisis dentro de la red autonómica de biomonitorización de metales pesados de La Rioja
Main researcher: Javier Martínez-Abaigar

From: Gobierno de La Rioja
Quantity: 30,600 €
Nº of participant researchers: 11
Lasting: 31/05/2012-15/12/2013
Kind of activity: Contract with a regional government
Participation: researcher

3. Title of research activity: Biocontrol de flúor 2012. Diversos estudios de valoración en los terrenos próximos a la planta que la empresa tiene en San Cibrao (año 2012) (2012-CE218)
Main researcher: Alejo Carballeira
From: Aluminio Español S.A
Quantity: 13,320 €
Nº of participant researchers: 6
Lasting: 13/06/2012-30/12/2012
Kind of activity: Contracts with companies
Participation: researcher

2. Title of research activity: Diseño integral de un briocaptador para o control da calidade da auga dos ríos
Main researcher: Alejo Carballeira
From: Biovía Consultor Ambiental
Quantity: 25,450 €
Nº of participant researchers: 8
Lasting: 1/02/2011-30/09/2012
Kind of activity: Contracts with companies
Participation: researcher

1. Title of the research activity: Adecuación del musgo como biomonitor de la calidad del aire ambiente: Efecto del crecimiento, adaptación al medio y relación deposición-bioconcentración
Main researcher: Alejo Carballeira
From: 6 PN-Biología vegetal, animal y ecología
Quantity: 109,868 €
Nº of participant researchers: 11
Lasting: 1/09/2009-31/12/2011
Kind of activity: National Plan.
Participation: researcher

7. PARTICIPATION IN CONGRESSES

International Congresses:

5. Spatial variation of life history traits in *Pseudoscleropodium purum* (Hedw.) M. Fleish: a sex expression and sex ratios study. Boquete M.T., Aboal J.R., Martínez-Abaigar J., Núñez-Olivera E., Fernández J.A. Madison, Florida (USA), 21-23 October 2016. **43rd South Eastern Population Ecology and Evolutionary Genetics (SEPEEG)**. **Poster**.

4. Growth rates and the evolution of heavy metals concentrations in segments of different ages of the terrestrial moss *Pseudoscleropodium purum*. Boquete M.T., Aboal J.R., Fernández J.A. and Carballeira A. Las Palmas de Gran Canaria (Spain), 24-28 June **2013**. **XIX Simposio de Botánica Criptogámica**. **Oral Comunincation**.

3. Assessment of adaptations to high heavy metal deposition rates by means of cross-transplants of the terrestrial moss *Pseudoscleropodium purum*. Boquete M.T., Fernández J.A., Carballeira A. and Aboal J.R. Çesme-Izmir (Turkey), 15-19 October of **2012**, **6th International Workshop on Biomonitoring of Atmospheric Pollution**. **Oral Comunication**.

2. Is it possible to estimate atmospheric deposition of heavy metals by analysis of terrestrial mosses? Aboal, J.R., Boquete, T, Fernández, J.A. and Carballeira A. Tomar (Portugal), 23-26 September **2009**, **XVII Simposio de Botánica Criptogámica**. **Oral comunication**.

1. Analysis of temporal variability in the concentrations of some elements in the terrestrial moss *Pseudoscleropodium purum*. Boquete,M.T., Aboal, J.R., Fernández, J.A. y Carballeira A. Tomar (Portugal), 23-26 September **2009**, **XVII Simposio de Botánica Criptogámica**. **Poster**.

National Congresses:

1. Life organisms: an environmental monitoring tool. Noya M., Boquete M.T., Varela Z., Romero J.S antiago de Compostela (A Coruña), 25-27 June **2009**, **VI Xornadas Galegas de Educación Ambiental**. **Poster**.

8. GRANTS AWARDED

5. **Marie S. Curie postdoctoral Fellowship (2016).** From: European Commission. To develop the project: "BRY"O"MICS. Application of high-sensitive and high-throughput molecular tools to disentangle the mechanisms of heavy metals accumulation and tolerance in mosses: epigenetic and transcriptomic approaches" within the H2020-MSCA-IF-2015, at the University of South Florida (USA) and the Estación Biológica de Doñana – CSIC (Spain). From **July 1st 2016 until June 30th 2019. 239,191.20€**.
4. **Grant to carry out short predoctoral stays abroad (2013)**. From: Fundación Barrié de la Maza. Stay at the Department of Biology, Duke University (North Carolina). From **February 1st 2014 until May 31rd 2014. 5,400€**.
3. **Grant for graduate students to train university professors (FPU) (2009)**. From: Spanish Ministry of Education (General Direction of University Policy). At the University of Santiago de Compostela. From **October 1st 2009 until September 30th 2013. 60,252€**.
2. **Grant for graduate students to carry out 3rd cycle studies (2008)**. At the University of Santiago de Compostela. From the Xunta de Galicia (regional government). From **October 1st 2008 until September 30th 2009. 7,200€**.
1. **Grant to collaborate in departments of the University of Santiago de Compostela (2007)**. From: Xunta de Galicia (regional government). From **September 2007 until July 2008. 3,000€**.

9. PREDOCTORAL SECONDMENTS

2. **Assessment of the accumulation heavy metals and the possible development of tolerance/adaptations to the presence of these pollutants in terrestrial mosses**. Developed with Prof. Jonathan A. Shaw (Department of Biology, Duke University) **from February 1st until May 31th 2014**.
1. **Learning of AFLP technique for molecular characterization of terrestrial bryophytes**. Developed with Prof. Simonetta Giordano (Department of Biología Vegetal de la Facoltá di Scienze Matematiche, Fisiche e Naturali de la Universitá degli Studi di Napoli Federico II, Italy) **from March 15th until June 15th 2012**.

10. LANGUAGES

Language	Oral comprehension	Writing comprehension	Oral expression
Spanish	Native	Native	Native
Galician	Native	Native	Native
English	Level B2 (EOI[1])	Level B2 (EOI)	Level B2 (EOI)
Italian	Level B2 (CILS[2])	Level B2 (CILS)	Level B2 (CILS)

11. TRAINING COURSES RECEIVED

9. University of California Conservation and Genomics Consortium **(2016)**. Title: Conservation and Gene Expression Workshop. **From 19-23 September of 2016, Asilomar, California (30 hours)**.

[1] EOI: Escuela Oficial de Idiomas (Official Language School)
[2] CILS: Certificazione di Italiano come Lingua Straniera dell´Università per Stranieri di Siena

8. University of A Coruña **(2015)**. Title: Science Xpression. **From 21-25 September of 2015, Santiago and A Coruña (15 hours)**.

7. University Rey Juan Carlos **(2015)**. Title: Basic Methodologies in Evolutionary Ecology. **From 6-10 July of 2015, Madrid (32 hours)**.

6. Barrié de la Maza Foundation **(2012)**. Title: GRADSchool competence training program for researchers. **From 12-15 November of 2012, A Coruña (42 hours)**.

5. Erudite Institute **(2009)**. Title: Environmental Educator. **During the course 2008/2009, Santiago de Compostela (300 hours, 240 theoretical, 60 practical)**

4. Institute of Sciences of Education (USC) **(2009)**. Title: Official National Teacher Certificate (C.A.P. "Curso de Aptitud Pedagógica"). **Santiago de Compostela (164 hours)**.

3. Association of Biologists **(2008)**. Title: Evaluation of Environmental Impact. **Santiago de Compostela (45 hours)**.

2. Health Care Service of the University of Santiago de Compostela **(2008)**. Title: First Aid for Emergency Equipment. **Santiago de Compostela (3 hours)**.

1. Week of Science at the University of Santiago de Compostela **(2007)**. Title: The double impact of Alzheimer: disease and dependency. **Santiago de Compostela (30 hours)**.

12. TEACHING AND SCIENTIFIC OUTREACH ACTIVITIES

Assistant professor in the Grade in Biology at the University of Santiago de Compostela. As part of the teaching and research staff (PDI) in the department of Cellular Biology and Ecology during the **courses 2011/2012 and 2012/2013 (120 hours in total**).

Participation as a teacher in the "Summer Scientific Camps" organised by the Spanish Ministry of Education, Culture and Sport together with the Spanish Foundation for Science and Technology, in order to introduce high school students into scientific research. **University of Santiago de Compostela, 1-28 of July of 2012 (87.5 hours)**.

13. MENTORING

Co-tutoring of Undergraduate Students in their end of course projects to obtain their degree in Biology:

Student: **Ismael Olveira Montes.** Title of the project: "Sex ratios in the terrestrial moss *Pseudoscleropodium purum* and their relationship with environmental conditions". **February 2016, University of Santiago de Compostela, Spain.**

Student: **Aitor Rodríguez Casanova.** Title of the project: "Study of the spatial variability of N concentrations in *Fucus vesiculosus* to its use as a biomonitor". **Course 2015/2016, University of Santiago de Compostela, Spain.**

Student: **Brais Cendán Riveiros.** Title of the Project: "Biomonitoring of Hg using *Fucus vesiculosus* in the north coast of Galicia. Determination of natural variability". **Course 2015/2016, University of Santiago de Compostela, Spain.**

Student: **Pablo Rodríguez Rodil.** Title of the Project: "Determination of mercury level in marine species of Galician coast, and its possible use as a tool for environmental monitoring of the ecosystem". **Course 2015/2016, University of Santiago de Compostela, Spain.**

Student: **Lidia Ferreras Ferrol.** Title of the project: "Study of the spatial variability of Hg in *Fucus vesiculosus* at small scale in the ría de Muros e Noia". **Course 2015/2016, University of Santiago de Compostela, Spain.**

14. ACADEMIC DISTINCTIONS

2015. **Positive evaluation for** "Profesor Contratado Doctor" (**Assistant Professor**) by the National Agency for Quality Assessment and Accreditation (ANECA), Ministry of Education, Spanish Government (**September 2105**).

2015. **Positive evaluation for** "Profesor Ayudante Doctor" (**Lecturer**) by the National Agency for Quality Assessment and Accreditation (ANECA), Ministry of Education, Spanish Government (**September 2105**).

2015. **Positive evaluation for** "Profesor de Universidad Privada" (**Lecturer of private University**) by the National Agency for Quality Assessment and Accreditation (ANECA), Ministry of Education, Spanish Government (**September 2105**).

15. MEMBERSHIP IN SCIENTIFIC SOCIETIES

Spanish Bryological Society (SEB).

16. PARTICIPATION AS A REVIEWER

I have revised several articles for high-quality international indexed journals such "*Science of the Total Environment*", "*Atmospheric Environment*", "*Journal of Hazardous Materials*", "*Ecological Indicators*", "*Journal of Bryology*".

17. UNIVERSITY SERVICE

Representative of non- permanent assistant professors and research trainees at the board of the Faculty of Biology (University of Santiago de Compostela), **from 24/05/2013**.

Representative of non-doctor lecturers and research trainees at the board of the Department of Cellular Biology and Ecology (University of Santiago de Compostela) **from 24/05/2010 to 29/05/2012**.

Representative of students at the board of the Department of Cellular Biology and Ecology (University of Santiago de Compostela) **from 12/05/2008 to 12/05/2009**.