

Personal Data

Name and Surname	Prof. dr. Mónica Boscaiu		
National ID		Age	
Researcher's identification	Researcher ID	H-7878-2015	
	Scopus Author ID		
	Código ORCID	0000-0002-9691-4223	

Current professional status

Organism	UNIVERSITAT POLITÈCNICA DE VALÈNCIA		
Department / Centre	D. Ecosistemas Agroforestales / E.T.S.I. Agronómica y Medio Natural		
Address	Camino de Vera s.2, 46022, Valencia, Spain		
Phone number		Email:	mobosnea@eaf.upv.es
Professional Category	Full Professor	Starting date	2019
UNESCO code	2417		
Key words	Plant ecology, abiotic stress, halophytes, salt tolerance		

Academic Qualifications

Degree/Doctorate	University	Year
Doctor in Biology	University of Vienna, Austria	1996
Graduated in Biology	University Babes Bolyai, Cluj-Napoca, Romania	1986

General indicators of the quality of scientific production

4 research tranches (last date: call 2023)

Theses (last 10 years): 7 (two directors), 3 in progress (co-director)

Publications in Web of Science Core Collection: 127

Total citations (Web of Science): 2400

Average citations per item 18.67

h-index: 26

Books and book chapters: 4

Conference papers: 70

Summary

Monica Boscaiu graduated in Biology at the Faculty of Biology at the Babes-Bolyai University in Cluj-Napoca, Romania and performed her PhD thesis in Botany at the University of Vienna on a problematic taxonomic group of species of the genus *Cerastium* (Caryophyllaceae) present in the Alps and the Carpathian Mountains. She received during 1997 and 1998 a post-doctoral fellowship from the Spanish Ministry of Science and Culture, when she joined the Botanical Garden of the University of Valencia. There she developed cytotaxonomical studies and research on the reproductive biology of endemic taxa. One of the results obtained has a particular significance in the management of the extremely endangered *Cistus heterophyllus* subsp. *carthaginensis*. In 1999-2002 she performed molecular analysis of species of interest. In 2002 she joined the Polytechnic University of Valencia where she is since 2019 Full Professor at the Department of Agroforest Ecosystems. In the last 20 years her research has focused on halophytes. Besides the scientific interest of the study of this remarkable stress tolerant taxa, such studies are also important for the conservation programs of endangered halophytes, as reflected in several publications in collaboration with managers of protected areas in the

Valencian Community. Another line of her research is focused on responses to drought and salinity in crops and forest species. Recently she is collaborating in the study of the effects of biostimulants on crops with other groups from UPV and other institutions.

Monica Boscaiu's scientific production can be summarized as follows: Factor H = 26, more than 170 papers in international journals, 127 included in the Web of Science. Her research was very active especially in the last 10 years when several papers were published in well-known journals in the field of Plant Sciences, such as *Front Plant Sci*, *Env Exp Bot*, *Plant Soil*, *Plant Physiol Biochem*, or in the field of Agronomy (*Sci Hort*, *Agronomy*). She participated in 24 competitive projects, being Project leader in two of them. Her updated number of citations is 2000.

Regarding her teaching activities, Monica Boscaiu has a long experience as she started as assistant professor at the Faculty of Biology of the University Babes-Bolyai in Cluj-Napoca, Romania (1991-1994). Since 2002, she joined the Department of Agroforest Ecosystems, becoming in 2010 associate professor (Profesor Titular de Universidad) and in 2019 full professor (Catedrático de Universidad). She supervised 7 PhD Theses already presented (5 in the last five years) and other 3 are in development. She also supervised 76 Bachelor's and Master's degree Theses, as well as the work of a large number of exchange Erasmus students. Monica Boscaiu is also actively involved in international teaching in frame of the Erasmus mobility programmes and participated in two EU Erasmus+ KA2 projects (Cooperation partnerships in higher education. In the period 2011-2015 she has been a Member of the Plant and Animal Resources Engineering Commission of the National Council for the Accreditation of Degrees, Diplomas and University Certificates CNATDCU (equivalent of ANECA in Spain).

Selected Publications

1. Sapiña-Solano A, Gambera AP, **Boscaiu M**, Vicente O, Ruiz-González MX (2024) Does the soil microbial community facilitate *Mimosa pudica*'s biological performance under abiotic stress? Growth, tolerance mechanisms, and seismonastic behaviour. *Plant Physiol Biochem* **215**, 108971
2. Zuzunaga-Rosas J, Calone R, Mircea DM, Shakya R, S Ibáñez-Asensio S, **Boscaiu M**, Fita A, Moreno H, Vicente O (2024) Mitigation of salt stress in lettuce by a biostimulant that protects the root absorption zone and improves biochemical responses. *Front Plant Sci* **15**, 1341714
- 3 Zuzunaga-Rosas J, **Boscaiu M**, Vicente O (2024) Agroindustrial By-Products as a Source of Biostimulants Enhancing Responses to Abiotic Stress of Horticultural Crops. *Int J Mol Sci* **25**(6), 3525
4. Mircea DM, Calone R, Estrelles E, Soriano P, Sestras R, **Boscaiu M**, Sestras A, Vicente O (2023) Responses of different invasive and non-invasive ornamental plants to water stress during seed germination and vegetative growth. *Sci Rep* **13**. Doi: 10.1038/s41598-023-40517-7
5. González-Orenga S, Leandro Meda, A., Tortajada L, Grigore M-N, Llorens JA, Ferrer-Gallego PP, Laguna E, **Boscaiu M**, Vicente O (2021) Comparative studies on the stress responses of two *Bupleurum* (Apiaceae) species in support of conservation programmes. *Environ Exp Bot* **191**, 104616
- 6 González-Orenga S, Donat-Torres MP, Llinares JV, Navarro A, Collado F, Ferrer-Gallego PP, Laguna E, Vicente O, **Boscaiu M** (2021) Multidisciplinary studies supporting conservation programmes of two rare, endangered *Limonium* species from Spain. *Plant Soil* **466**, 505-524
7. González-Orenga S, Grigore MN, **Boscaiu M**, Vicente O (2021) Constitutive and induced salt tolerance mechanisms and potential uses of *Limonium* Mill. species. *Agronomy* **11**, 413
- 8 González-Orenga S, Trif C, Donat-Torres MP, Llinares JV, Collado F, Ferrer-Gallego PP, Laguna E, **Boscaiu M**, Vicente O (2020) Responses to increased salinity and severe drought in the Eastern Iberian endemic species *Thalictrum maritimum* (Ranunculaceae), threatened by climate change. *Plants* **9**, 1251
9. González-Orenga S, Llinares JV, Al Hassan M, Fita A, Collado F, Lisón P, Vicente O, **Boscaiu M** (2020) Physiological and morphological characterization of *Limonium* species in their natural habitats: Insights into their abiotic stress responses. *Plant Soil* **449**, 267-284

10. Plazas M, Nguyen HT, González-Orenga S, Fita A, Vicente O, Prohens J, **Boscaiu M** (2019) Comparative analysis of the responses to water stress in eggplant (*Solanum melongena*) cultivars. *Plant Physiol Biochem* **143**, 72-82

Participation in Projects

- 1 Comparación de las respuestas a estrés entre especies amenazadas y la flora exótica invasora en un escenario de aumento de la temperatura global (CIAICO/2022/091). Generalitat Valenciana. PI Mónica Boscaiu y Antonio Lidón. 01/01/2023-31/12/2025. 90.000 €.
- 2 Agroecological strategies for sustainable weed management in key European crops (101084084). Commission of the European Community. PI Mercedes Verdeguer. 01/06/2023-31/07/2027. 386750.0 €.
- 3 Development of improved ecotypes of pepper (*Capsicum annum* L.) of high quality and disease resistant adapted to organic farming in SE Spain (PID2019-110221RR-C32). State Research Agency (Agencia Estatal de Investigación). PI Adrián Rodríguez Burruezo (Universitat Politècnica de València). 01/06/2020-01/06/2023. 111,199.0 €.
- 4 Tomato and eggplant nitrogen utilization efficiency in Mediterranean environments (PCI2019-103375). State Research Agency (Agencia Estatal de Investigación). Jaime Prohens Tomás (Universitat Politècnica de València). 01/03/2020-30/04/2022. 150,000.0€
- 5 Improve performance of organic agriculture by boosting organic seed and plant breeding efforts across Europe (727230). Commission of the European Community. PI Adrián Rodríguez Burruezo (Universitat Politècnica de València). 01/03/2018-01/10/2021. 99,000.0 €.
- 6 Linking genetic resources, genomes and phenotypes of Solanaceous crops (677379) Commission of the European Community. PI M^a José Díez Niclós. (Universitat Politècnica de València). 01/03/2018-01/01/2022. 484,248.75 €.
- 7 Development and Preparation of Eggplant Pre-Bred Materials for Adaptation to Climate Change (CROP/SC-310-03) The Global Crop Diversity Trust. PI Jaime Prohens Tomás. (Universitat Politècnica de València). 01/03/2018- 01/07/2019. 87,290.51 €.
- 8 Mechanisms of tolerance to water and salt stress in endemic, rare or threatened plants, and implications for their maintenance or reintroduction in the Natural Park of Albufera. Generalitat Valenciana (AICO/2017/039). PI Mónica Boscaiu (Universitat Politècnica de València). 01/12/2017-01/01/2022. 40,000.00 €.
- 9 European Plant Breeding College (2015-1-FR01-KA203-015095) Commission of the European Community. PI Ana María Fita Fernández. (Universitat Politècnica de València). 01/09/2015-01/09/2017. 49,766.0 €.