



**CURRICULUM VITAE (CVA)**  
**IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.**

<b>Part A. PERSONAL INFORMATION</b>	<b>CV date</b>	14/01/2022
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First name

	Enrique	
Family name	Mateos Naranjo	
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**A.1. Current position**

Position	Full Professor
Initial date	03/12/2020
Institution	Universidad de Sevilla
Departament/Center	Biología Vegetal y Ecología/Facultad de Biología
Country	Spain
Key words	Abiotic stress, Ecophysiology, Climatic change, Halophytes, Phyto-tools, Phytomicrobiome, Plant-microbial interactions applications

**A.2. Previous positions (research activity interruptions, art. 45.2.c)**

Period	Position/Institution/Country/Interruption cause
2017-2020	Lecturer / Universidad de Sevilla / Spain
2009-2017	Hired teacher / Universidad de Sevilla / Spain

**A.3. Education**

PhD, Licensed, Graduate	University/Country	Year
Licensed in Biology	Universidad de Sevilla / Spain	2004
PhD in Biology	Universidad de Sevilla / Spain	2008
University Expert in Plant Ecophysiology Methods	Universidad Islas Baleares	2014

**Part B. CV SUMMARY (max. 5000 characters, including spaces)**

In the year 2004 I obtained an FPI scholarship (Junta de Andalucía) for the realization of my PhD Thesis, which I finished in 2008, obtaining the University of Seville Award for the Best Doctoral Thesis. From the beginning of my research career, I have developed studies with a multidisciplinary approximation, through the use of eco-physiological, biochemical and molecular techniques focused, and designed to deepen into the knowledge of the ecology of the marshes, the biology of the halophytes and their tolerance mechanisms with special attention in modelling their photosynthetic response and limitations under environmental stresses. In recent years, I have focused on the study of the response of plants to environmental synergistic interactions and the role of plant growth promoting bacteria in their modulation and its application in the improvement of traditional and cash crop halophytes to climatic change scenarios. Thus, the research lines that I am contributed to developed in our research group, Applied Functional Ecology (RNM035), are: **i)** Ecophysiology of halophytes and crops. **ii)** Interactions plant-microorganism. **iii)** Conservation Ecophysiology. **iv)** Phytoremediation. I have published 120 research papers since 2006, 100 of them in scientific journals with impact indexes included in JCR in the highest impact journals of their category (Q1), among which are: Bioresource

Technology, Environmental and Experimental Botany, Journal of Experimental Botany, Journal of Ecology, New Phytologist, Marine Pollution Research. This scientific production has generated indicators of quality of: **i)** Average n° of publications last five years: 8.2 (85% Q1; 14% Q2 and 1% Q4). **ii)** Total publications in Q1: 67 (60 last ten years). **iii)** Total D1: 23. **iv)** Total n° of citations / average last five years: 2484 / 311 (Scopus). **v)** h-index: 29 and M-index: 1.8. In addition, I have made 91 contributions to scientific congresses (64 international and 27 national), member of the Organizing Committee of “VII Coloquio de Ecofisiología Forestal”. 2017 (El Rocío, Huelva). Furthermore, I have published 12 book chapters. I have participated continuously, in 14 research projects (12 since 2012) obtained in competitive calls, being IP of 6 of them highlighted the projects PDC2021-120951-I00 NextGenerationEU, CGL2016-75550-R AEI / FEDER, UE, FEDER US-1262036 and 2 International Cooperation, 15 research project of teacher innovation, being IP of 5 of them (PPID, US). I have also participated in 11 research contracts with the Public Administration or Companies. On the other hand, I am part of 4 international networks, one of which was constituted for the European COST Action FA0901 project, and others formed to apply the project of the European Union, PRIMA, ERA-CAPS, and BiodivERSa. Also I am member of the University Institute of Studies on Latin America, research line: Biodiversity, Ecosystems and Natural Resources. I am also member of the editorial committee of “PeerJ” and guest editor of a special issue of the journal “Applied Sciences”. Reviewer more than 50 times for publications of 40 journals. And on June 2015, I won Young Research Award for Excellence in Research in Biological Sciences. (Real Academia Sevillana de Ciencias). And on February 19, 2020, I won the VII Losada Villasante Award for Excellence in Research in the Agrifood area. In the field of transfer and relationship with companies, I have participated in 10 research contracts with the Public Administration, with Institutions or Companies and 2 collaborations agreements. These activities allowed me to obtain a *Sexenio de Transferencia* of the CNEAI in 2019. I am currently responsible of the project of the call „proof of concept“, PDC2021-120951-I00 NextGenerationEU, mentioned above, is the direct transfer of the results obtained in a previous project (CGL2016-75550-R) to the companies. And I am IP for Andalucía regional Transference Actions Call (Conv. 2021 submitted). Regarding the dissemination of the results of my research, I participate in several activities such as *Noche Europea de los Investigadores*, *Café con Ciencia*, *Ciencia en Bulebar*”; as well as press releases on newspapers and interviews on television and radio programs (El País, Diario de Sevilla, Huelva buenas noticias, Condadovisión, La Cadena Ser, etc.). I have directed 5 Doctoral Theses, 4 of them with the International Doctorate Mention and two also with Extraordinary Doctorate Award. I currently direct one more. I have also directed 11 master's theses, 1 DEAs and more than 30 degree students. In addition, I have been evaluator of the programs: i) Calls for Excellence and Challenges of the State Plan since 2012, member of the Commission of the Environmental science and technology (CTM-TECNO), 2018. ii) PhD formation FPU call. iii) Research mobility programme Salvador Madriagaro and José Castillejo mobility Call. And actually I am Coordinator of PhD Program “Integrative Biology” of the University of Seville.

## **Part C. RELEVANT MERITS (sorted by typology)**

### **C.1. Publications (see instructions)**

1- **Mateos-Naranjo E**, López-Jurado J, Mesa-Marín J, Luque CJ, Castellanos EM, Pérez-Romero JA, Redondo-Gómez S (2021) Understanding the impact of a complex environmental matrix associated with climate change on the European marshes engineer species *Spartina maritima*. Environmental and Experimental Botany 182:104304. DOI:10.1016/j.envexpbot.2020.104304

2- **Mateos-Naranjo E**, López-Jurado J, Redondo-Gómez S,..., Mesa-Marín J (1/9) (2020). Uncovering PGPB *Vibrio spartinae* inoculation-triggered physiological mechanisms involved in the tolerance of *Halimione portulacoides* to NaCl excess. Plant Physiology and Biochemistry 154, 151-159. DOI: 10.1016/j.plaphy.2020.05.034

3- López-Jurado J, **Mateos-Naranjo E**, Balao F (2019). Niche divergence and limits to expansion in the high polyploid *Dianthus broteri* complex. New Phytologist 222, 1076-1087. DOI: 10.1111/nph.15663

4. **Mateos-Naranjo E**, Pérez-Romero JA, Redondo-Gómez S, Mesa-Marín J, Castellanos EM, Davy AJ (2018). Salinity alleviates zinc toxicity in the saltmarsh zinc-accumulator *Juncus acutus*. *Ecotoxicology and Environmental Safety* 163, 478-48. DOI: 10.1016/j.ecoenv.2018.07.092
- 5- Navarro-Torre S, Barcia-Piedra JM, Caviades MA, Pajuelo E, Redondo-Gómez S, Rodríguez-Llorente ID, **Mateos-Naranjo E** (2017) Bioaugmentation with bacteria selected from the microbiome enhances *Arthrocnemum macrostachyum* metal accumulation and tolerance. *Marine Pollution Bulletin* 117, 340-347. DOI: 10.1016/j.marpolbul.2017.02.008
- 6- Mesa J, Rodríguez-Llorente ID, Pajuelo E, Barcia-Piedras JM, Caviades MA, Redondo-Gómez S, **Mateos-Naranjo E** (2015) Moving closer towards restoration of contaminated estuaries: Bioaugmentation with autochthonous rhizobacteria improves metalrhizoaccumulation in native *Spartina maritima*. *Journal of Hazardous Materials* 300, 263-271. DOI: 10.1016/j.jhazmat.2015.07.006
- 7- **Mateos-Naranjo E**, Mesa j, Pajuelo E, Pérez-Martín A, Caviades MA, Rodríguez-Llorente ID (2015). Deciphering the role of plant growth-promoting rhizobacteria in the tolerance of the invasive cordgrass *Spartina densiflora* to physicochemical properties of salt-marsh soils. *Plant and Soil*, 394:45-44. DOI: 10.1007/s11104-015-2504-7
8. **Mateos-Naranjo E**, Castellanos E, Perez-Martín A (2014). Zinc tolerance and accumulation in the halophytic species *Juncus acutus*. *Environmental and Experimental Botany*, 100:114-121. DOI: 10.1016/j.envexpbot.2013.12.023
9. **Mateos-Naranjo E**, Perez-Martin A (2013). Effects of sub-lethal glyphosate concentrations on growth and photosynthetic performance of non-target species *Bolboschoenus maritimus*. *Chemosphere*, 93:2631-2638. DOI: 10.1016/j.chemosphere.2013.09.094
10. **Mateos-Naranjo E**, Andrades-Moreno L, Redondo-Gómez S (2012) Tolerance to and accumulation of arsenic in the cordgrass *Spartina densiflora* Brongn. *Bioresource Technology* 104, 187-194. DOI: 10.1016/j.biortech.2011.11.006.

## C.2. Congress

- 1- Mesa-Marín J, **Mateos-Naranjo E**, Perez-Romero JA, Mariscal V, Molina-Heredia FP, Pajuelo E, Rodríguez-Llorente ID, Redondo Gómez S (2021) PGPR biofertilizers from halophytes for agriculture in a climate change scenario. 11th Symposium of the International Society of Root Research ISRR11/Rooting2021. 2021. University of Missouri, Columbia, USA (Type of participation: oral, virtual communication).
- 2- Mesa-Marín J, **Mateos-Naranjo E**, Rodríguez-Llorente ID, Redondo Gómez S (2018) Halophyte – rhizobacteria for crop adaptation to Climate Change. 10th Symposium of the International Society of Root Research (ISRR10). 8-12 July 2018, Israel (Type of participation: oral communication).
- 3- Duarte B, **Mateos Naranjo E**, Redondo Gómez S, Marques JC, Caçador I. The tale continues: ecophysiological fitness of non-indigenous versus native *Spartina* species in Mediterranean salt marshes. XIV MEDECOS & XIII AEET meeting. Human driven scenarios for evolutionary and ecological changes. Sevilla (Spain). 2017 (Type of participation: oral communication).

## C.3. Research projects

- 1- TITLE: Proof of concept, with end users, of a bio-tool (generated in CGL2016-75550-R AEI/FEDER, EU) for the improvement of intensive agricultural practices (BIOFERSA) (PDC2021-120951-I00) Funded by the European Union. FINANCIAL ENTITY AND CALL: R+D+i Projects, Proof of Concept within the framework of the State R+D+i Program oriented to the Challenges of Society, the State Plan for Scientific and Technical Research and Innovation. Call 2021. MAIN RESEARCHER AND AFFILIATION: **Enrique Mateos Naranjo** and Susana Redondo Gómez, US. DURATION: 01/12/2021–30/11/2023. BUDGET: 92.000 €. TYPE OF PARTICIPACION: Principal researcher.
- 2- TITLE: MESEM-BOLOMA Valorization of the halophyte from the Andalusian coasts *Mesembryanthemum crystallinum* as a source of bioproducts of pharmaceutical and nutraceutical interest. From the microbiome to the metabolome (Ref. P20\_00682). FINANCIAL ENTITY AND CALL: R+D+i projects, Andalusian Research, Development and Innovation Plan (PAIDI 2020). Junta de Andalucía. MAIN RESEARCHER AND AFFILIATION: Eloisa Pajuelo Domínguez, US.

DURATION: 04/10/2021–31/12/2022. BUDGET: 80.000 €. TYPE OF PARTICIPACION: Researcher.

3- TITLE: Improving the sustainability of strawberry cultivation using bio-tools (FEDER US-1262036). FINANCIAL ENTITY AND CALL: Competitive participation in R+D+i projects within the framework of the FEDER Andalusia Operational Program 2014-2020. MAIN RESEARCHER AND AFFILIATION: **Enrique Mateos Naranjo** and Ignacio D. Rodríguez Llorente, US. DURATION: 01/02/2020–31/01/2022. BUDGET: 79.701 €. TYPE OF PARTICIPACION: Researcher.

4- TITLE: The halophytes and their rhizospheric relationships: tools for the adaptation of traditional agriculture to Climate Change (CGL2016-75550-R AEI/FEDER, UE). FINANCIAL ENTITY AND CALL: Ministry of Economy and Competitiveness / Call Challenges, National Plan. MAIN RESEARCHER AND AFFILIATION: **Enrique Mateos Naranjo** and Susana Redondo Gómez, US. DURATION: 30/12/2016–29/12/2019. BUDGET: 215380 €. TYPE OF PARTICIPACION: Principal researcher.

5- TITLE: Improvement of the tools for the conservation and management of the Patagonia marshes, Argentina. FINANCIAL ENTITY AND CALL: International Cooperation Research Projects (Development Cooperation Office-US). MAIN RESEARCHER AND AFFILIATION: **Enrique Mateos Naranjo** US. DURATION: 01/01/2015-30/10/2017. BUDGET: 12.079,02 €. TYPE OF PARTICIPACION: Principal researcher.

6- TITLE: Low cost ecological strategies for the recovery of Andalusian estuaries contaminated with heavy metals. Rhizostabilization with native plants and inoculants (P11-RNM-7274). FINANCIAL ENTITY AND CALL: Counseling of Innovation, Science and Business, Junta de Andalucía / Projects of Excellence. MAIN RESEARCHER AND AFFILIATION: Eloísa Pajuelo Domínguez, US. DURATION: 16/05/2013-15/05/2016. BUDGET: 185847 €. TYPE OF PARTICIPACION: Researcher.

7- TITLE: Evaluation of the desalination capacity of *Arthrocnemum macrostachyum* (RTA2012-00006-C03-02). FINANCIAL ENTITY AND CALL: Ministry of Economy and Competitiveness / Subprogram of Fundamental Research Projects Oriented to Agricultural Resources and Technologies in Coordination with the Autonomous Communities. MAIN RESEARCHER AND AFFILIATION: Susana Redondo Gómez, US. DURATION: 13/05/2013-12/05/2016. BUDGET: 31000.8 € TYPE OF PARTICIPACION: Principal researcher.

8- TITLE: Phytodesalination assisted by microorganisms: a new strategy for the recovery of arid zones in the Mediterranean area (AP/039614/11). FINANCIAL ENTITY AND CALL: Spanish Agency for International Cooperation for Development (AECID) / Interuniversity Cooperation and Scientific Research Program. MAIN RESEARCHER AND AFFILIATION: Susana Redondo Gómez, US. DURATION: 01/01/2012-31/03/2013. BUDGET: 9500 €. TYPE OF PARTICIPACION: Principal researcher.

9- TITLE: Putting halophytes to work: from genes to ecosystems (FA0901). FINANCIAL ENTITY AND CALL: European Union / COST Action. MAIN RESEARCHER AND AFFILIATION: Timothy John Flowers, University of Sussex. DURATION: 15/10/2009–30/05/2014. BUDGET: 507936 €. TYPE OF PARTICIPACION: Researcher.

10- TITLE: Weak points for the knowledge of the carbon cycle in estuary systems: sink-emission relationships (CTM2008-04453). FINANCIAL ENTITY AND CALL: Ministry of Science and Innovation / State Plan. MAIN RESEARCHER AND AFFILIATION: Xavier Niell Castanera, Univ. Málaga. DURATION: 01/01/2009 – 31/12/2015. BUDGET: 350000 €. TYPE OF PARTICIPACION: Researcher.

#### **C.4. Contracts, technological or transfer merits**

**1- Contract:** ALBEDO, agreement for the realization of a scientific application. Financial entity: Company Esasur Energía Eficiencia e Instalaciones, S.L. Duration: 01/07/2021-01/06/2023. Main researcher: Susana Redondo Gómez. Budget: 25.000 €.

**2- Contract:** Conservation project of *Dianthus inoxianus* in the Macía quarry: Translocation and reinforcement of populations. Financial entity: Áridos la melera, S.L. Duration: 23/04/2014-22/11/2017. Main researcher: Francisco Balao Robles. Budget: 28.748 €.