

Part A. PERSONAL INFORMATION		CV date	05/12/2020
First and Family name	RAQUEL ESTEBAN TERRADILLOS		
Social Security, Passport, ID number	72398695P	Age	38
Researcher codes	Open Researcher and Contributor ID (ORCID**)	C-4241-2008	
	SCOPUS Author ID (*)	22955408800	
	WoS Researcher ID (*)	orcid.org/0000-0003-2560-3310	

(*) *Optional*

(**) *Mandatory*

A.1. Current position

Name of University/Institution	Universidad del País Vasco (UPV/EHU)		
Department	Biología Vegetal y Ecología / Facultad de Ciencia y Tecnología		
Address and Country	Sarriena s/N		
Phone number	636436078	Correo electrónico	raquel.esteban@ehu.es
Current position	Profesora adjunta	Fecha inicio	2020
Key words	Plant physiology, secondary metabolism, traits, ecophysiology		

A.2. Education

PhD, Licensed, Graduate	University	Year
Biology Degree	University of Basque Country (UPV/EHU)	01/07/2005
Advanced Studies Diploma	University of Basque Country (UPV/EHU)	15/06/2007
Biology PhD	University of Basque Country (UPV/EHU)	18/09/2009

A.3. General Indicators of quality of scientific production (see instructions)

41 peer-reviewed manuscripts +5 international book chapters +4 national book chapters; Mean ISI impact factor: 3.22 (9 articles with IF>4); Accumulative IF of 125; 68% articles in Q1; 8 articles in D1; H-index: 20; i-index: 30; Total Citations: 1233, Citations2019: 180; average citation per publication: 30; 160 citations/year (last 5 years); 3 theses supervised (*international and cum laude*) and 1 thesis ongoing; 17 Master thesis supervised; 9 undergraduate students' training+7 grade works supervised (3 ongoing).

Part B. CV SUMMARY (max. 3500 characters, including spaces)

I am plant ecophysiologicalist, broadly interested in understanding how plants interact with their environment and what mechanisms at different scales are responsible for this acclimation/adaptation of plants. During my research track, I have acquired a wide expertise in the study of plant tolerance to several environmental constraints in a wide number of species, tracking plants responses from a holistic view that encompasses disciplines across diverse scales (ecology, anatomy, physiology, biochemistry, molecular biology, nutrition, and health). **Academic achievements:** PhD with European Mention (Cum laude and Special Doctorate Extraordinary Award) at UPV/EHU. **Career employments** at UPV/EHU, CSIC, and Basque Center for Climate Change. **Scientific publications:** 41 peer-reviewed manuscripts: 81% of them I acted as first, second, corresponding or senior author. 9 book chapters: 4 national and 5 international (3 as first author, 1 as senior author); 87 presentations at national and international conferences (9 proceeding, 18 oral communications, 1 invited communication) and 1 online- manuscript (wikiprotocols). **Project participation** in 30 R&D projects (including 4 as PI). **International activity:** More than 80 co-authors in scientific publications; Experience in outstanding international institutions: Forschungszentrum Jülich (3 months, Germany), Universidad Nacional Autónoma Nicaragua (UNAN, 2 months),



University of Minnesota (2 months, USA) and Italian National Research Council (3 months, Italy), 40 presentations at international conferences. Member of the EuroCaroten COST action network. **Leadership capacity:** 4 projects as PI. Peer-reviewer for more than 19 high-impact journals being top reviewer in 2018 by Publons. Guest associate editor of *Frontiers in Plant Science*. Reviewer and panel member of 3 thesis defence and in master and grade defense committee. Evaluator of AEET young projects in 2019. Teaching/supervision of 2 post-docs, 4 PhD students (3 completed, 1 at the end of 2022), 2 visiting PhD students, 17 MSc students, 10-grade dissertations, and 3-practices mentoring. Director of two summer courses, Director committee member of BASOTEK. Multidisciplinary network regarding forest health. Director of 2 summer courses in the Public University of Navarre and UPV/EHU. **Grants:** my research has been competitively funded amounts to a total of 250000€ (e.g., Jae Doctor, Juan de la Cierva...). **Teaching activities** Teaching Plant Physiology in 7 different degrees at UPV/EHU. Participated in 3 University Summer Courses. Coordination of a subject of Food Technology degree. **Transfer.** A patent under development in collaboration with the UPNA. **Outreach:** Rich outreach activities with newspaper publications, articles in “The conversation”, open doors days, week of science, radio programs. **Other merits:** Co-organizer of the “I Ecophysiology Symposium”.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

1. Ruiz-Larrinaga L, Resco de Dios V, Fabrikov D, Guil-Guerrero JL, Becerril JM, García-Plazaola JI, **Esteban R** (AC). 2019. Life after harvest: circadian regulation in photosynthetic pigments of rocket leaves during supermarket storage affects the nutritional quality. *Nutrients* 11: 1519: Impact Factor (IF). 4.546; Position 17/81; Q1
2. Buezo J, Sanz-Saez A, Moran JF, Soba D, Aranjuelo I, **Esteban R**(AC). 2018. Drought tolerance response of high yielding soybean varieties to mild drought: physiological and photochemical adjustments. *Physiologia Plantarum* 66: 88-104. IF 4.148; Position 24/234; D1; *timed cited: 9*.
3. **Esteban R**(AC)., García-Plazaola JI, Hernández A, Fernández-Marín B. 2018. On the recalcitrant use of Arnon’s method for chlorophyll determination. *New Phytologist* 217: 474-476, IF 8,512; 7/234; D1; *timed cited: 4*
4. Fini A, Massimiliano T, **Esteban R**(AC). 2017. Plant responses to novel environmental pressures. *Frontiers in plant science* 8:2000 IF 4.402; 19/234; D1; *timed cited: 3*
5. **Esteban R** (AC)., Ariz I, Cruz C, Moran JF. 2016. The mechanisms of ammonium toxicity and the quest for tolerance. *Plant Science* 248; 92–101 *Impact factor: 3.6; Q1, timed cited: 124*.
6. **Esteban R**(AC)., Royo B, Urarte E, Zamarreño AM, García-Mina JM, Moran JF. 2016. Both free indole-3-acetic acid and the photosynthetic performance are important players in the response of *Medicago truncatula* to urea and ammonium nutrition under axenic conditions. *Frontiers in Plant Science* 7: 140 *Impact factor: 3.9; 19/200; Q1. timed cited: 8*.
7. **Esteban R**(AC)., Barrutia O, Artetxe U, Fernández Marin B, Hernandez A, García-Plazaola JI. 2015 Internal and external factors affecting photosynthetic pigment composition in plants: a meta-analytic approach. *New Phytologist* 206: 268–280 *IF: 7.672; 6/200; D1; times cited: 8*.
8. **Esteban R**(AC)., Moran JF, Becerril JM, García-Plazaola JI. 2015. Versatility of carotenoids: an integrated view on diversity, evolution, functional roles and environmental interactions. *Environment Experimental Botany* 119: 63–75 *IF: 3.359; 30/200, Q1, times cited: 112*.
9. **Esteban R**(AC)., Balaguer L, Manrique E, (1/ 15).2009. Alternative methods for sampling and preservation of photosynthetic pigments and tocopherols in plant material from remote locations. *Photosynthesis Research* 101: 77-88. *Impact factor: 3.5; Position: 29/200;Q1; times cited: 22*
10. **Esteban R**(AC)., Olano JM, Castresana J, Fernández-Marín B, Hernández A, Becerril JM, García-Plazaola JI. 2009. Distribution and evolutionary trends of photoprotective isoprenoids (xanthophylls and tocopherols) within the plant kingdom. 2009. *Physiologia plantarum* 135: 379-389. ISSN: 0031-9317; *Impact factor: 2.708; Position: 28/172; times cited:53 Q1*

C.2. Research projects



1. El papel de las Interacciones planta-microBiota En la Resiliencia Y Colapso ante el cAmbio climático de encinares Mediterráneos. CGL2017-84723-P. Spanish Ministry of Economy and Competitiveness (MINECO). PROYECTOS I+D Excelencia 2017. 01/01/2018 -31/12/2020. IP Jorge Curiel. BC3. 66.550€. Participante en el grupo de trabajo.
2. Uncovering the volatile nature of bryophytes (VolNaBry). Ayudas a proyectos de investigación en ecología liderados por jóvenes investigadores. AEET. 01/01/2018-31/12/2018. 3000€ **IP Raquel Esteban.**
3. Ecología global: efectos del cambio climático en bosques forestales boreales y templados desde una perspectiva botton-up. Ayuda de movilidad UPV/EHU. Universidad del País Vasco. MOV18/13. 26-06-2018/ 30-09-2018. 2740€ **IP.Raquel Esteban.**
4. Compuestos orgánicos volátiles biogénicos. Explorando su relación con procesos oxidativos. MMEJC17/03. Estancias José Castillejo. Ministerio de Educación, Cultura y Deporte. 01-07-2017/ 30-09-2017. 10.317€. **IP.Raquel Esteban.**
5. Ecofisiología del estrés y de la contaminación en plantas (EKOFISCO). Grupos consolidados Gobierno Vasco. GIC15/44. 01-01-2015/31-12-2018. IP. José María Becerril. 345.758€. Tipo de participación. **Grupo de Investigación**
6. Bases mecánicas para la compensación entre fotosíntesis y tolerancia al estrés: completando lagunas de conocimiento para la Biología Evolutiva y la Biotecnología de Plantas. (CTM2014- 53902-C2-1-P). Ministerio de Economía y Competitividad 01/01/2015-31/12/2018. 120.000€ IP. JI García-Plazaola. Tipo de participación. **Equipo de Trabajo.**
7. Vías de oxidación de aminoácidos como origen de las especies de nitrógeno reactivo en plantas crecidas con amonio y su relación con la señalización en la respuesta vegetal. (AGL2014-52396-P). 80.000€ Ministerio de Economía y Competitividad. 01/01/2015-31/12/2018. IP. JF Moran. Tipo de participación. **Equipo de Trabajo.**
8. Creación de una diplomatura de Biología Vegetal en la Universidad Nacional Autónoma de Nicaragua- León. Spanish Cooperation Agency (B/032065/10) Ministerio de asuntos exteriores. 01/01/2011-31/12/2011. 19.300€ JI García-Plazaola Tipo de participación. **Grupo de investigación.**
9. Zeaxantina y condiciones ambientales extremas: nuevas funciones, papel bioindicador y nutriceutico. Ministerio de Educación y Ciencia(BPU2010-18021). 01/01/2011-31/12/2013. 96.800€ IP. JI García-Plazaola. Tipo de participación. **Grupo de investigación.**
10. Salud del suelo y contaminación química: desarrollo y aplicación de tecnologías para la identificación, diagnóstico y terapia(IE09242). Dpto. Industria, Comercio y Turismo. Gobierno Vasco. 01/01/09 - 31/12/11. 152.482€ IP. José María Becerril. Tipo de participación. **Grupo de investigación.**

C3. Supervision of pH thesis

-J. Buezo (2016-2021) Title of the work: Vías de oxidación de aminoácidos como origen de las especies de nitrógeno reactivo en plantas crecidas con amonio y su relación con la señalización en la respuesta vegetal. Sobresaliente cum Laude.International. *3 research papers*

-C. Dolmus (2012-2020) Respuestas fotoprotectoras (xantofilas y tocoferoles) en especies de interés del bosque seco de Nicaragua. Sobresaliente cum Laude. *1 research paper*

-B. Royo (2012-2016). An integrated view of changing nutrient availability in model species: The role of signaling in the plant response Sobresaliente cum Laude. *3 research papers.*

C4.International and national Research stays

2018 Department of Forest Resources, University of Minnesota, Research: 45days

2017 IPSP, National Research Council, CNR, Italy. Research: 3 months

2014 Wageningen. UR horticulture: The Netherlands. Technical visit

C5. Fellowships

2014.Juan de la Cierva postdoctoral fellowship. Granting agency: Spanish Government

2012. JAE-Doctor postdoctoral fellowship funded by CSIC and cofinanced by European Social Funds.

2011. Postdoctoral fellowship funded by Basque Country University.

2010. Postdoctoral fellowship funded by Basque Country University.

2010. Grant for early-career development: Basque Government.



C6. Distinctions and awards

2020. Coordination of the subject “raw material production in “science and technology” degree.
2020/ 2010 Agrobiotechnology Master defense committee as secretary
2020 Grade defense committee in Biotechnology/Biology grade
2019. External assessor of University of Free State (South Africa)
2019. Grade defense committee (2019) in Medicine grade as president.
2018. Top Reviewer 2018 by publons.
2017. Membership of thesis defense committee of E. Fleta at Univ. of Barcelona
2016. Member of the committee to evaluate candidates of a researchers´ selective process in UPNA
2016 Guest associate editor of Frontiers in Plant Science
2016. Membership of thesis defense committee of A. León at Univ. of Seville
2012. Membership of thesis defense committee of B. Fernández Marin at UPV/EHU.
2011 Special award of doctoral thesis “Ph.D. with distinction” by UPV/EHU.

C7. Career/employments

2019-date. Teacher (professor adjunto) in the University of Basque Country (UPV/EHU)
2019-2019 Researcher at Basque Center for Climate Change (BC3)
2016-2019: Researcher Juan de la Cierva at the UPV/EHU
2013-2016: Researcher at the Spanish National Research Council (CSIC).
2010-2013: Researcher and Teacher in the University of Basque Country (UPV/EHU)

C8. Memberships

2018. Member of **BASOTEK**. Multidisciplinary network regarding forestry and bioeconomy sector
2017-now. Member of **Eurocaroten red COST**
2015-now. Member of the **Spanish plant biology society**
2012-now. Member of the **AETT Tropical ecology group**
2010-now. Member of the **Spanish Ecological Society (AEET)**
2008. Member of the **International Society of Photosynthesis Research**

C9. Organisation of Scientific meetings and courses.

2015, 2017 Summer course organisation and Director, UPV/EHU, Spain
2011 Organiser, “I Coloquio de primavera de Ecofisiología”, Espejo, Basque Country, Spain
2007 Organiser, “Young researchers conference”, Bilbao Basque Country, Spain

C10. Evaluation and direction activities

2019. AEET young projects ‘evaluator
2017 Direction of the summer course (12h). ¿qué importancia tienen en nuestra alimentación) UPV/EHU”
2015 Direction of the summer course (12h) “Un viaje por la actualidad de las plantas” UPNA.

C11. Grade Teaching and PhD student research stay supervising.

2020. Training of Antonio De Agostini (Italy) during 3 months of his research stay at UPV/EHU
2019 Training of Antonio De Agostini during 3 months of his research stay at UPV/EHU
2019-date. Teaching Plant Physiology in 7 degrees (Pharmacy, Biology, Biotechnology, Food Science, Biochemistry, Environmental Science and Nutrition) UPV/EHU.
2016 Training of Mariana Rockenback (Brasil) during 6 months of his research stay at CSIC
2011-2012 Teaching botany, degree of Biology, Pharmacy and Environmental Science, UPV/EHU, Spain (136h).

C12. CAREER BREAKS

November 2010-April 2011. Maternity leave
May 2016- January 2017. Maternity leave