

Part A. PERSONAL INFORMATION

CV date

03/07/2024

First and Family name	Julio Marcial Arrontes Junquera		
Social Security, Passport, ID number	xxxxxS	Age	xx
Researcher codes	Open Researcher and Contributor ID (ORCID**)	https://orcid.org/0000-0003-3240-2373	
	SCOPUS Author ID (*)	6602783506	
	WoS Researcher ID (*)		

(*) Optional

(**) Mandatory

A.1. Current position

Name of University/Institution	University of Oviedo		
Department	Biología de Organismos y Sistemas		
Address and Country	Catedrático Valentín Andrés Álvarez s/n, 33006-Oviedo, Spain		
Phone number	985104791	E-mail	arrontes@uniovi.es
Current position	Profesor Titular de Ecología	From	1993
Key words	Population Ecology, Invasion, Experimental Field Ecology, Intertidal Macroalgae, Distributional boundary		

A.2. Education

PhD, Licensed, Graduate	University	Year
Licensed	U. of Oviedo	1982
PhD	U. of Oviedo	1987

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

Research period acknowledged (*Sexenios*): 5. Date of last: June 2022

h-index (Scopus): 17

Average number of citations per year for the period 2015-2019 (5 years) (Scopus): 56.

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

Research activity. My research activity has been centred almost exclusively in marine environments. However, the processes and topics might be extrapolated to other systems without any difficulty as they are mostly general processes affecting most systems. During my first years of my scientific career (PhD research period), my interest was in the plant-herbivore interactions in the marine benthos, particularly the interactions between mesoherbivores and algae. After that, my interest derived to the processes related to the expansion of distributional boundaries of intertidal species. As a consequence, I paid attention to the factors responsible for the structure of macroalgal dominated communities in the intertidal zone at different temporal and spatial scales. Coinciding with the retreat of a large number of macroalgal species from the rocky shores of northern Spain, my interest changed to the causes for the retraction of the distributional ranges,

In addition to my first interest in shallow benthos and intertidal communities, I have collaborated with other groups of the University of Oviedo in the study of the deep benthos in the Central Biscay Bay, as well as in the study of planktonic communities. As a consequence of my postdoctoral formation at the University of Sydney, I developed an interest in Experimental Design, both from theoretical and practical points of view. All my contributions have an



eminently experimental approach. I tried to care all formal aspects of the design of experiments.

Since 2012, I have been interested in the development of computer applications for the practical teaching of Population Ecology, both for undergraduate and Master courses. I have developed scalable applications capable of teaching basic concepts of Population Ecology but also of training in management-oriented Ecology.

Teaching experience. Type 3 associate teacher in Animal Biology from 1991 to 1993. Lecturer of Ecology (*Profesor titular de escuela universitaria*) from 1991 to 1993. At present and from 1993, Lecturer of Ecology at the Department of Biology of Organisms and Systems of the University of Oviedo. Six teaching periods acknowledged. Courses taught: General Ecology, Ecology of Populations and Communities and Ecology of Aquatic Systems (at the Faculty of Biology); Ecology and Environmental Impact (at the school of Civil Engineering); Management of Protected Areas (at the school of Forestry and Natural Environment); management of Wild Populations, Sampling Methods and Data Analysis (Erasmus Mundus Master in Marine Biodiversity and Conservation).

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (from 2018)

Arrontes, J. (2018). Pop-Inference: An educational application to evaluate statistical differences among populations. *Ecology and Evolution*, 8: 5220-4230. <https://doi.org/10.1002/ece3.4010>

García, A; Olabarría, C; Arrontes, J; Álvarez, O; Viejo, RM (2018). Spatio-temporal dynamics of *Codium* populations along the rocky shores of N and NW Spain. *Marine Environmental Research* 140: 394-402. <https://doi.org/10.1016/j.marenvres.2018.07.008>

Álvarez-Losada, Ó., Arrontes, J., Martínez, B., Fernández, C., Viejo, R.M. (2020). A regime shift in intertidal assemblages triggered by loss of algal canopies: a multidecadal survey. *Marine Environmental Research*, 160, 104981. <https://doi.org/10.1016/j.marenvres.2020.104981>

Arrontes, J. (2020). Comparison of asymptotic population growth rates with heterogeneous variances. *Population Ecology*, 2202: 1:10. In press. <https://doi.org/10.1002/1438-390X.12070>

Arrontes, J. (2021). Demography_Lab: an educational application to evaluate population growth. Unstructured and matrix models. *Ecology and Evolution* 11: 1940-1956. <https://doi.org/10.1002/1438-390X.12070>

Geiger, K.J., Rivera, A., Aguión, A., Álvarez, J., Arrontes, J., y 26 más (2022). Coping with poachers in European stalked barnacle fisheries: Insights from a stakeholder workshop. *Marine Policy*, 135, 104826. <https://doi.org/10.1016/j.marpol.2021.104826>

Parrondo, M., Morán, P. Ballenghien, M., Acuña, J.L., Aguión, A., Arrontes, J. y 11 más (2022). Chaotic genetic patchiness in the highly valued Atlantic stalked barnacle *Pollicipes pollicipes* from the Iberian Peninsula: implications for fisheries management. *Frontiers in Marine Science*, 9, 801780. <https://doi.org/10.3389/fmars.2022.801780>



Izquierdo, P., González-Taboada, F., González-Gil, R., Arrontes, J., Rico, J.M. (2022). Alongshore upwelling modulates the intensity of marine heatwaves in a temperate coastal sea. *Science of Total Environment*, 835, 155478. <http://dx.doi.org/10.1016/j.scitotenv.2022.155478>

Izquierdo, P., Rico, J.M., González-Taboada, F., González-Gil, R., Arrontes, J. (2022). Characterization of marine heatwaves in the Cantabrian sea, SW Bay of Biscay. *Estuarine, Coastal and Shelf Science*, 274, 107923. <https://doi.org/10.1016/j.ecss.2022.107923>

Geiger, K.J., Arrontes, J., Rivera, A., Fernández, C., Álvarez, J., Acuña, J.L. (2024). Effect of stalked barnacle harvest on rocky shore intertidal community. *Journal of Experimental Marine Biology and Ecology* 570, 151962. <https://doi.org/10.1016/j.jembe.2023.151962>

C.2. Research projects (from 2018)

Title: Poblaciones de macroalgas en peligro de desaparición local: una evaluación multiescalar (PERSIST)

Organism: PN-Proyecto Plan Nacional. Ministerio de Ciencia e Innovación

Amount: xxx €

From: 01/12/2022 **To:** 31/12/2024

Principal researcher: Rosa María Chefaoui Díaz (Universidad Rey Juan Carlos)

Type of participation: Researcher

Title: Preservación de poblaciones marginales de macroalgas intermareales generadoras de hábitat a través de datos digitales y prácticas de restauración in situ (InterMaRest)

Organism: Ministerio de Ciencia e Innovación

Amount: xxx €

From: 01/12/2022 **To:** 31/12/2024

Principal researcher: Rosa María Chefaoui Díaz (Universidad Rey Juan Carlos)
Type of participation: Researcher

Title: Herramientas para la transición hacia la gestión espacial de recursos costeros: la pesquería de percebe en el suroeste de Europa (MINECO-17-PCIN-2016-120)

Organism: PN-Proyecto Plan Nacional

Amount: xxx €

From: 01/12/2016 **To:** 31/12/2020

Principal researcher: José Luis Acuña Fernández (Universidad de Oviedo)

Type of participation: Researcher

C.3. Contracts, technological or transfer merits

C.4. Patents

C.5, C.6, C.7...