

CURRICULUM VITAE ABREVIADO (CVA)

IMPORTANT – The Curriculum Vitae cannot exceed 4 pages. Instructions to fill this document are available in the website.

Part A. PERSONAL INFORMATION

First name	Mercedes		
Family name	Conradi Barrena		

A.1. Current position

Position	Catedrática		
Initial date	05-08-2025		
Institution	University of Sevilla		
Department/Center	Fac. Biology	Department of Zoology	
Country	Spain		
Key words	Ecotoxicology, CO ₂ , climate change, plasticity, invertebrates simbiosis Copepoda		

A.2. Previous positions (research activity interruptions, indicate total months)

Period	Position/Institution/Country/Interruption cause
1988/90 Beca de colaboración	I.N.A.P.E.
1991/95	Beca de F.P.D.I Junta de Andalucía
1995/97	Beca Postdoctoral en el extranjero Ministerio de Educación
January- March 1998	Postdoctoral fellow Plymouth Environmental Center
5-10-98/10-02-00	Ayudante de Facultad Universidad de Jaén
11-02-00/15-03-00	Profesora Asociada tipo-II Universidad de Sevilla
16-03-00/15-01-04	Profesora Asociada tipo-III Universidad de Sevilla
16-01-04/04-08-2025	Profesora Titular de Universidad
05-08-2025-actualidad	Catedrática de Universidad

A.3. Education

PhD, Licensed, Graduate	University/Country	Year
Licensed in Biology	University of Sevilla	06/1990
PhD In Marine Science	University of Cádiz	07/1995

(Include all the necessary rows)

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

Her research includes over 66 articles, 7 book chapters, and 33+ congress contributions (Sexenios: 4). Of the 66 articles, 83% are indexed in JCR, with 71% published in first- (17) and second-tercile (22) journals. Fifteen are in first-quartile journals, 10 of which are also in the first decile. Notably, 10 first-quartile articles were published in the last decade, 8 in the first decile. She has developed two research lines: "Taxonomy of symbiotic copepods in marine invertebrates" (43 papers, fewer citations due to a niche audience) and "Ecotoxicology in marine invertebrates" (23 papers). The latter began during her postdoc at Plymouth Environmental Center (UK) and has faced challenges due to her mobility (5 institutions) and limited access to specialized equipment in Spanish research teams. Her leadership is evidenced by her being the first author on 40% of her articles, second on 31%, and last on 20% (7 articles with 2 authors, 7 with 3). She has received regional (5 tramos CAECA 2019), national (4 CNEAI sexenios, latest 2020), and international recognition (referee for <100 articles in 13 JCR journals- 2018–2024-, including *Science of the Total Environment*: 21, *Chemosphere*: 13, and *Environmental Pollution*: 9). She was principal investigator of "Biodiversity of Aquatic Systems (BEIM)" RNM-331 at the University of Seville (2007–2009, Andalusian Research Plan). She has participated in 12 competitive projects (international,

national, and regional), 5 of which were in the last decade, focusing on marine biodiversity conservation. Recent projects addressed climate change (ocean acidification and temperature rise) and emerging contaminants. Unfortunately, in recent years, she has consistently applied as IP for projects under national or regional funding programs that, despite receiving favourable evaluations, were not granted. Due to current scientific policies on project incompatibility, this has hindered her ability to participate in other research projects during this period. She has contributed to 13 consultancy projects, including the creation of the "Guidelines for the Characterization of Dredged Material and Its Relocation in Public Maritime Waters" (Interministerial Commission for Marine Strategies, 2014). These guidelines established mechanisms to evaluate dredging operations and environmental management practices. Her work has been recognized with the International Marine Environment Award (UNESCO) as a member of the research team studying benthic communities in the Bay of Algeciras. She currently leads "Evaluation and Validation of Port Dredging Purification by Evaporation and Crystallization (ASE&C)" within the European project ASEC in collaboration with WATER CHALLENGER S.L.

She has teaching experience at four Spanish universities (UCA, UJA, US, and USC), where she has taught 17 subjects across two different fields of knowledge in four degree programs at both undergraduate and postgraduate levels (*Quinquenios*: 6). She designed and taught a course (2 ECTS) in the ERASMUS MUNDUS WACOMA Master's program (2 years) awarded by the Andalusian Forum for European Communication (FACE). She has supervised three doctoral theses, which resulted in 11, 5, and 4 research articles, respectively, 1 master's thesis (with 2 papers), and 21+ undergraduate projects. Two of the PhDs received International Doctorate recognition. She has been IP for two projects on Innovation and Teacher Improvement. Additionally, she organized the "First International Congress on University Teaching Innovation in Natural History," held in Seville in 2012, and served as the editor of the book resulting from the congress. She has published nine diverse teaching materials. Her dissemination efforts include organizing exhibitions, talks, and educational activities such as memory games, food chain magnets, and marine gymkhanas (3 *Acciones complementarias de divulgación científica y tecnológica del Plan nacional*). She has also developed educational materials for ecotoxicology research and published two outreach articles in *Investigación y Ciencia*.

Part C. RELEVANT MERITS (sorted by typology)

C.1. Publications (see instructions)

- 1.- **Conradi M**, Sánchez-Moyano JE, Bonnail E, DelValls TA Riba I. 2025. Toxicological Efficiency Evaluation of the ASEC Technology for Contaminated Mining Water Using *Lemna minor*. *Water*, 17, 2175. <https://doi.org/10.3390/w17152175>
- 2.- **Conradi, M.**; Sánchez-Moyano, J.E.; Rodríguez-Martín, F.J.; Bayo, J. 2024. Can *Hediste diversicolor* Speed Up the Breakdown of Cigarette Butts in Marine Sediments? *Appl. Sci.*, 14, 4409. doi.org/10.3390/app14114409.
- 3.-Campos, S Leite C, Pinto J, Henriques B, Soares AMVM, **Conradi M**, Pereira E, Freitas R. 2023. Behavioural and biochemical responses of the sea snail *Tritia reticulata* to lithium concentration gradient. *Aquatic Toxicology*, 261, 106629 doi.org/10.1016/j.aquatox.2023.106629
- 4.- Bonnail E., Vera S., Blasco J., **Conradi M.**, DelValls T.A. 2023. Metal pollution and mining in the Iberian Pyrite Belt: new remediation technologies to improve the ecosystem services of the river basins. *Water* 15 (7), 1302. doi.org/10.3390/w15071302.
- 5.- Riba I., Bonnail E, Salamanca M.J., **Conradi M.**, Costa MH. Integrative assessment of sediment quality in the São Francisco River (Mina Gerais, Brazil). *Applied Science* 13(6), 3465; doi.org/10.3390/app13063465.
- 6.- **Conradi M.**, Sánchez-Moyano J.E. 2022. Toward a sustainable circular economy for cigarette butts, the most common waste worldwide on the coast. *Science of the Total Environment*, 847, 157634 1-13 pp. doi.org/10.1016/j.scitotenv.2022.157634.
- 7.- **Conradi M.** 2022. Chapter Ten. Phenotypic plasticity under CO₂ scenarios, 155-182 pp. In: CO₂ acidification in aquatic systems: An integrative approach to Risk Assessment T.A DelValls & I. Rivas (eds), Elsevier, 305pp. ISBN: 978-0-12-823552-2. doi.org/10.1016/B978-0-12-823552-2.00001-0.

- 8.- **Conradi M.**, Ribas I. 2022. Chapter Six. Addressing the effects of CO₂ acidification under “in situ” conditions: Laboratory against field surveys, 93-103 pp. In: CO₂ acidification in aquatic systems: An integrative approach to Risk Assessment T.A DelValls & I. Rivas (eds), Elsevier, 305pp. ISBN: 978-0-12-823552-2. doi.org/10.1016/B978-0-12-823552-2.00003-4.
- 9.- Bhuiyan MKH, Masum Billah Md, DelValls TA, **M. Conradi**. 2022. Intergenerational reproductive response of an estuarine copepod to ongoing ocean acidification. *Journal of Experimental Marine Biology and Ecology*, 557, 151799, 1-13 pp. doi.org/10.1016/j.jembe.2022.151799.
- 10.- Bhuiyan MKH, Marín Rodríguez B, Masum Billah Md, Pires, A., R., Freitas, **M. Conradi**. 2022. Effects of ocean acidification on the biochemistry, physiology and parental transfer of *Ampelisca brevicornis* (Costa, 1853). *Environmental Pollution*, 293, 118549. doi.org/10.1016/j.envpol.2021.118549.
- 11.- Marín Rodríguez B, Coppola F, **Conradi M**, R., Freitas. 2022. The impact of temperature on lithium toxicity in the gastropod *Titria neritea*. *Environmental Science & Pollution Research*, 29, 64745–64755. doi.org/10.1007/s11356-022-20258-2

C.2. Congress, indicating the modality of their participation (invited conference, oral presentation, poster)

C.3. Research projects, indicating your personal contribution. In the case of young researchers, indicate lines of research for which they have been responsible.

- 1.- An integrative approach in Huelva and its associated mining ecosystems to obtain Critical Raw Material (CPP2024-011342).) *Project scope:* National *Program Name:* Proyectos De Colaboración Público-Privada, Del Plan Estatal De Investigación Científica, Técnica y De Innovación 2024-2027 *Duration:* 2025-2028 *Amount:* 570.001,65 € *IP:* Water Challenger SL
- 2.- Characterization of the environmental quality of coastal ecosystems affected by oil (88887.469743/2019) *Project scope:* International *Program Name:* Ministerio de Educación de Brasil, CAPES. Entre Mares *Duration:* Marzo 2020-Febrero 2023 *Grant Amount:* 99998 Brazilian reais *IP:* Camilo Dias Seabras.
- 3.- Evaluation of toxicity of crack/cocaine to marine organisms exposed to different scenarios of acidification by enrichment of CO₂ (CO₂caineTOX). *Project scope:* Internacional *Program Name:* Sao Paulo Research Foundation (FAESPEP)(2018/18546-4) *Duration:* Marzo 2019- Febrero 2022 *Grant Amount:* 18.368,19 *IP:* Ángel Del Valls Casillas.
- 4.- Environmental impacts of leakage from sub-seabed CO₂ storage (254777 /E20). *Project scope:* Internacional *Program Name:* Research Council of Norway, Programme CLIMATIC del Institutt for kjemi, NORGES TEKNISKNATURVITENSKAPELIGE UNIVERSITET NTNU *Duration:* 01/01/2016 -31/12/2018 *Grant Amount:* 1000 (in NOK 1 000) *IP:* Marie-Laure Olivier.
- 5.- Diseño y optimización de tecnologías ambientales mediante simulaciones de laboratorio de efectos crónicos y de ciclo de vida de especies bentónicas y planctónicas (CTM2012-36476-C02-02) *Project scope:* National *Program Name:* Plan Nacional I+D *Duration:* 01/01/2013-31/12/2016 *Grant Amount:* 92.000 euros *IP:* Gema Parra Anguita.
- 6.- Efectos de fugas de CO₂ almacenado en formaciones geológicas marinas: cinética de toxicidad de metales en sedimentos marinos (CTM2011-28437-C02-02) *Project scope:* National *Program Name:* Plan Nacional I+D, *Duration:* 01/10/2011- 31/10/2014 *Grant Amount:* 78.000 euros *IP:* Inmaculada Riba López.
- 7.- Análisis y modelado del comportamiento de lixiviación en condiciones de equilibrio de la movilidad de metales de sedimentos marinos en contacto con fugas de CO₂ de procesos CS-SSGS (CTM2008-06344-C03-03) *Project scope:* National *Program Name:* Ministerio de Educación y Ciencia *Duration:* 01/01/2009 - 31/12/2011 *Grant Amount:* 83.474 euros *IP:* T.Ángel Delvalls Casillas

C.4. Contracts, technological or transfer merits, Include patents and other industrial or intellectual property activities (contracts, licenses, agreements, etc.) in which you have collaborated. Indicate: a) the order of signature of authors; b) reference; c) title; d) priority countries; e) date; f) Entity and companies that exploit the patent or similar information, if any.

1.- Evaluación y Validación de Purificación de dragados portuarios mediante evaporación y cristalización (ASE&C) en el marco del proyecto Europeo *The first energy and cost-efficient disruptive ZLD Technology for dredged material management, allowing circular economy and zero pollution (ASEC)*, Referencia: 4964/2035 Funding company: WATER CHALLENGER S/A Participating organizations: Universidad de Sevilla Duration: 19/10/2023- 18/10/2025 Grant Amount: 135.350€ IP: Mercedes Conradi Barrena.

2.- Ejecución de campañas de trabajo en el río San Francisco (Tres María, Brasil) para determinar la calidad de sus sedimentos, Referencia: OT2010/149 Funding company: VOTORANTIM METAIS ZINCO S/A Participating organizations: Universidad de Unisanta (Brasil), Universidad de Sevilla Duration: 10/2010- 10/2012 Grant Amount: 1.16000 IP: T. Ángel del Valls Casillas

3.- Evaluación de la contaminación y efectos adversos asociados con explotaciones mineras en cuencas fluviales, Referencia: OT2008/133 Funding company: GOLDER ASSOCIATES GLOBAL IBERICA SLU Participating organizations: Universidad de Cádiz Duration: 10/2008- 09/2010 Grant Amount: 26680 IP: T.A. Del Vals Casillas.

C.5. Management experience

1.- Project title: Microscopía básica para la investigación de individuos, población y sistemas: Adquisición y análisis de imágenes. Ministerio de Ciencia e Innovación. *Financed by* Subprograma de proyectos de infraestructura científico-tecnológica cofinanced by FEDER (UNSE10-1E-260), Duration: 15/12/2011-31/12/2012, Grant Amount: 77.066 €. IP: Mercedes Conradi Barrena.

2.- Project title: Modelos integrados de evaluación de los efectos asociados con la acidificación por enriquecimiento de CO₂ en sistemas acuáticos. *Financed by* Universidad de Sevilla. Duration: 2017. Grant Amount: 5.000 €. IP: Mercedes Conradi

3.-Project title: Ayuda de consolidación a grupos de investigación. PAIDI. *Financed by* Junta de Andalucía (RNM-3300-2009), Duration: 01/01/2010-31/12/2010, Grant Amount: 7.427,63 €, IP: Mercedes Conradi Barrena.

3.-Project title: Ayuda de consolidación a grupos de investigación. PAIDI. *Financed by* Junta de Andalucía (RNM-300-2008), Duration: 01/01/2009- 31/12/2009, Grant Amount: 5.598,41 €, IP: Mercedes Conradi Barrena.

4.-Project title: Ayuda de consolidación a grupos de investigación. PAIDI. *Financed by* Junta de Andalucía (RNM-300-2007), Duration: 01/01/2008-31/12/2008, Grant Amount: 6.945,38 €, IP: Mercedes Conradi Barrena

5.-Project title: Acción coordinada entre los grupos de investigación "Oceanografía y Contaminación del litoral "RNM-144 y "Ecología y Biodiversidad de sistemas acuáticos"RNM-300. *Financed by* Junta de Andalucía, Duration: 01/01/2001-31/12/2001, Grant Amount: 7.788,11, IP: Mercedes Conradi Barrena.