

CV Date	28/11/2022
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Part A. PERSONAL INFORMATION

First Name	Inés		
Family Name	Mazarrasa Elósegui		
Sex	Female	Date of Birth	18/06/1985
ID number Social Security, Passport	72072806Y		
URL Web	https://www.researchgate.net/profile/Ines_Mazarrasa		
Email Address	mazarrasai@unican.es		
Open Researcher and Contributor ID (ORCID)	0000-0002-5476-9953		

A.1. Current position

Job Title	Postdoctoral Researcher Juan de la Cierva Incorporación		
Starting date	2022		
Institution	IHCantabria, Instituto de Hidráulica Ambiental de la Universidad de Cantabria		
Department / Centre	Coastal Ecosystems		
Country	Spain	Phone Number	34 942 20 16 16
Keywords	Marine macrophytes, carbon cycle		

A.2. Previous positions (Research Career breaks included)

Period	Job Title / Name of Employer / Country
2022 - 2022	Research assistant / Centro de Estudios Avanzados de Blanes
2020 - 2021	Postdoctoral researcher / FUNDACIÓN INSTITUTO DE HIDRÁULICA AMBIENTAL DE CANTABRIA
2018 - 2019	Researcher / University of Cantabria
2017 - 2017	Researcher / FUNDACIÓN INSTITUTO DE HIDRÁULICA AMBIENTAL DE CANTABRIA / Spain
2015 - 2015	Researcher / Universidad de las Islas Baleares
2011 - 2015	PhD student / Mediterranean Institute for Advanced Studies (IMEDEA-CSIC)
2010 - 2010	Fellowship student / Mediterranean Institute for Advanced Studies (IMEDEA-CSIC)

A.3. Education

Degree/Master/PhD	University / Country	Year
Doctoral program in Marine Ecology	University of the Balearic Islands	2016
Master in Global Change	UIMP-CSIC	2011

Part B. CV SUMMARY

My research focuses on the role coastal ecosystems (e.g. saltmarshes, seagrass meadows and macroalgae forests) play in Climate Change mitigation through carbon sequestration (i.e. Blue Carbon) with the aim of contributing to the conservation of these ecosystems by valuing this ecosystem service. In particular, my research has focused on identifying the biotic and abiotic factors that determine this function, as well on assessing the impact that human activities have on these ecosystems health and, therefore, on their role as a carbon sinks. I have published 16 scientific articles (10 as first author) that have a total of 1500 citations according to WoS (Publons), all of them in first quartile or decile journals. Some of them have been especially relevant in my field, such as Mazarrasa et al., 2015 (Biogeosciences) where we quantify inorganic carbon deposits in seagrass meadows at a global scale and discuss their implication in their role as a carbon sinks, Mazarrasa 17a,b (Limnology and Oceanography) where we demonstrate how coastal development impact

the carbon sinks associate to seagrass (*Posidonia oceanica*) meadows; Duarte et al., 2013 (Nature Climate Change) where we discuss the role that vegetated coastal ecosystems can play in Climate Change mitigation and adaptation, or Mazarrasa et al., 2021, where we identified the main factors that determine the sequestration of carbon in seagrass meadows (Global Biogeochemical Cycles). After conducting my thesis (2010-2016) in the Mediterranean Institute for Advanced Studies (IMEDEA, UIB-CSIC), funded by a PhD fellowship (FPI) from the Government of The Balearic Is. (Spain), I have obtained 2 postdoctoral grants (Juan de la Cierva Formación (2018-2020) and Juan de la Cierva Incorporación (2023-2026) and two mobility grants (Fundación Santander-Investigación and José Castillejo). I have led a research project as principal investigator (WETLANDS CC 2020-2022) that has resulted in two scientific articles published in journals of the first decile (Global Biogeochemical Cycles and Scientific Reports) and participated as a researcher in many other projects, both national and international. I have conducted 4 research stays in international research centers, in Costa Rica (CIMER, University of Costa Rica, 4 months), Australia (University of Western Australia, 1 month and Edith Cowan University, 6 months) and Italy (Anton Dohrn Zoological Station in Ischia, 1 month), which has allowed me to create a solid collaboration network with leading researchers in the field of Blue Carbon. I have participated in many knowledge transfer projects with different entities, both public and private (e.g. Red Cambera, University of Vigo, European Topic Center-University of Malaga) and I regularly participate in scientific dissemination and environmental education activities (e.g. Pint of Science, European Researcher's Night, International Day of Women and Girls in Science). In addition, I am part of the editorial panel of the journal *Frontiers in Marine Science* as a reviewer. I have supervised a master's thesis (University of Cantabria), I am a member of the Doctoral Commission of the University of Cantabria and I have been accredited as Doctor Assistant Professor by the National Agency for Quality Assessment and Accreditation of Spain (ANECA).

Part C. RELEVANT ACCOMPLISHMENTS

C.1. Most important publications in national or international peer-reviewed journals, books and conferences

AC: corresponding author. (n° x / n° y): position / total authors. If applicable, indicate the number of citations

- 1 **Scientific paper**. Inés Mazarrasa; Jordi Garcia-Orellana; Araceli Puente; José A. Juanes. 2022. Coastal engineering infrastructure impacts Blue Carbon habitats distribution and ecosystem functions *Scientific Reports*. nature portfolio. 12-19352.
- 2 **Scientific paper**. Roberta Moraes; Borja Reguero; Max Ricker; Inés Mazarrasa; José A. Juanes. 2022. Nature-Based Solutions in coastal and estuarine areas of Europe *Frontiers in Environmental Science*. 20-829526.
- 3 **Scientific paper**. Jimena Samper-Villarreal; Inés Mazarrasa; Pere Masqué; Óscar Serrano; Jorge Cortés. 2022. Sediment organic carbon stocks were similar among four species compositions in a tropical seagrass meadow *Limnology and Oceanography*.
- 4 **Scientific paper**. Inés Mazarrasa; Paul Lavery; Carlos Duarte; et al;. 2021. Factors determining seagrass Blue Carbon across bioregions and geomorphologies *Global Biogeochemical Cycles*. 35-6.
- 5 **Scientific paper**. Paula Núñez; Andrés García; Inés Mazarrasa; José Antonia Juanes; Ana Julia Abascal; Fernando Méndez; Sonia Castanedo; Raúl Medina. 2019. A methodology to assess the probability of marine litter accumulation in estuaries *Marine Pollution Bulletin*. 144, pp.309-324.
- 6 **Scientific paper**. Ines Mazarrasa; Araceli Puente; Paula Núñez; Ana Julia Abascal; Andrés García; José Antonio Juanes. 2019. Assessing the risk of marine litter accumulation in estuarine habitats *Marine Pollution Bulletin*. 144, pp.117-128.
- 7 **Scientific paper**. Inés Mazarrasa; Núria Marbà; Dorte Krause-Jensen; Hillary Kennedy; Rui Santos; Catherine E. Lovelock; Carlos M. Duarte. 2019. Decreasing carbonate load of seagrass leaves with increasing latitude *Aquatic Botany*. 159-103147.

- 8 **Scientific paper.** Vicent Saderne; N.R. Gherini; Peter I. Macreadie; et al;. 2019. Role of carbonate burial in Blue Carbon budgets Nature Communication. 10-1106.
- 9 **Scientific paper.** Mazarrasa, I. (AC); Samper-Villareal; Serrano, O.; Lavery, P.S.; Lovelock, C.E.; Marbà, N.; Duarte, C.M.; Cortés, J.(1/8). 2018. Habitat characteristics provide insights of carbon storage in seagrass meadows Marine Pollution Bulletin. 10.1016/j.marpolbul.. ISSN 0025-326X.
- 10 **Scientific paper.** Ariane Arias-Ortiz; Pere Masque; Jordi Garcia-Orellana; et al;. 2018. Reviews and syntheses: Pb-210-derived sediment and carbon accumulation rates in vegetated coastal ecosystems - setting the record straight Biogeosciences. 15-22, pp.6791-6818.
- 11 **Scientific paper.** Mazarrasa, I. (AC); Marbà, N.; Garcia-Orellana, J.; Masqué, P.; Arias-Ortiz, A.; Duarte, C.M.(1/6). 2017. Dynamics of carbon sources supporting burial in seagrass sediments under increasing anthropogenic pressure Limnology and Oceanography. in press.
- 12 **Scientific paper.** Mazarrasa, I. (AC); Marbà, N.; Garcia-Orellana, J.; Masqué, P.; Arias-Ortiz, A.; Duarte, C.M.(1/6). 2017. Effect of environmental factors (wave exposure and depth) and anthropogenic pressure in the C sink capacity of Posidonia oceanica meadows Limnology and Oceanography. in press.
- 13 **Scientific paper.** Marbà, Núria; Arias-Ortiz, Ariane; Masqué, Pere; Kendrick, Gary; Mazarrasa, Inés; Bastyan, Geoff R.; Garcia-Orellana, J.; Duarte, C.M.(5/8). 2015. Impact of seagrass loss and subsequent revegetation on carbon sequestration Journal of Ecology. 103, pp.296-302. ISSN 0022-0477. SCOPUS (19)
- 14 **Scientific paper.** Mazarrasa, Inés (AC); Marbà, Nuria; Lovelock, Catherine E.; et al; Duarte, Carlos M.(1/11). 2015. Seagrass meadows as a globally significant carbonate reservoir Biogeosciences. 12, pp.4993-5003. ISSN 1726-4189. SCOPUS (3)
- 15 **Scientific paper.** Mazarrasa, I. (AC); Olsen, Y.S.; Mayol, E.; Marbà, N.; Duarte, C.M.(1/5). 2014. Global unbalance in seaweed production, research effort and biotechnology markets Biotechnology Advances. ISSN 0734-9750. SCOPUS (4)
- 16 **Scientific paper.** Mazarrasa, I. (AC); Olsen, Y.S.; Mayol, E.; Marbà, N.; Duarte, C.M.(1/5). 2013. Rapid growth of seaweed biotechnology provides opportunities for developing nations Nature Biotechnology. Nature Publishing Group. 31-7, pp.591-592. ISSN 1087-0156. SCOPUS (8)
- 17 **Scientific paper.** Duarte, C.M.; Losada, I.J.; Hendriks, I.E.; Mazarrasa, I.; Marbà, N.(4/5). 2013. The role of coastal plant communities for Climate Change mitigation and adaptation Nature Climate Change. Nature Publishing Group. 3, pp.961-968. ISSN 1758-678X. SCOPUS (118)
- 18 **Scientific-technical report.** 2020. Seagrass ecosystem services: assessment and scale of benefits The value of seagrasses to the environment and to people. UNEP.
- 19 **Guidelines.** Valdor, P.F.; Cloux, I.; Rabadán-González, J.; et al; Heras, F.,. 2021. RED4C. Ciencia ciudadana para el seguimiento del cambio climático en los ecosistemas.Red Cambera.
- 20 **Database.** Mazarrasa, I.; Marbà, N.; Lovelock, C.E.; et al; Duarte, C.M.2015. Sediment inorganic carbon (PIC) deposits in seagrass meadows and adjacent sand- patches Digital CSIC.
- 21 **Database.** Mazarrasa, I.; Marbà, N.; Hendriks, I.E.; Losada, I.J.; Duarte, C.M.2013. Estimates of Average Sediment Accretion Rates in Vegetated Coastal Habitats Around the World Digital CSIC.

C.3. Research projects and contracts

- 1 **Project.** LIFE ADAPTABLEUES. Adaptation to Climate Change through management and restoration of estuarine ecosystems. European Commission. (FUNDACIÓN INSTITUTO DE HIDRÁULICA AMBIENTAL DE CANTABRIA). 01/07/2019-30/06/2024. 2.193.891 €. Team member. Coordinator of technical actions. Leader of carbon sequestration assessment.
- 2 **Project.** Elaboration of the Mediterranean distribution Maps of Posidonia oceanica meadows, coralligenous assemblages and marine caves habitats in the Mediterranean Sea. (European Topic Centre of University of Malaga). 15/02/2022-01/09/2022. 1.166 €.

- 3 **Project.** TRASMARES, Specialized Training on applied tools for sustainable marine ecosystems. ERASMUS +. (Universidad de Cantabria). 01/10/2019-31/08/2022. 257,95 €. Team member. I participate in the design of MOOCs and development of course content and production.
- 4 **Project.** MICROFAM: Dinámica y acumulación del microplástico costero en comunidades de fanerógamas marinas: explorando los ecosistemas del litoral español. IMEDEA (CSIC-UIB). Fundación BBVA. (01/2020-01/2022) 99,843.66 €. Role: researcher.. (Instituto Mediterráneo d Estudios Avanzados). 01/2020-01/2022. 99.843,66 €. Team member.
- 5 **Project.** WETLANDS CC: Understanding the role coastal wetlands play as carbon sinks and the potential of application of conservation and restoration as CC mitigation and adaptation strategies". Programa FÉNIX, Gobierno de Cantabria-IHCantabria. (FUNDACIÓN INSTITUTO DE HIDRÁULICA AMBIENTAL DE CANTABRIA). 01/01/2020-31/12/2021. 69.981,27 €. Principal investigator.
- 6 **Project.** Red de seguimiento para caracterizar y evaluar el estado de conservación de las praderas de *Zostera noltei* (hábitat 1140) en la Región Biogeográfica Atlántica: Diseño y puesta en marcha (PRADERA). Fundación Biodiversidad-Ministerio de Agricultura, Alimentación y Medio Ambiente-. (FUNDACIÓN INSTITUTO DE HIDRÁULICA AMBIENTAL DE CANTABRIA). 01/03/2018-28/02/2019. 24.743,59 €. Team member. In this project I have been in charge of the assessment of the carbon sequestration capacity of the *Zostera noltei* meadows of the Santander Bay (Cantabria) which involved two field campaigns for biom...
- 7 **Project.** CleanLICS: Modelado de la acumulación de basuras marinas en lugares de importancia comunitaria (LICs) del litoral de Cantabria. Fundación Biodiversidad. (FUNDACIÓN INSTITUTO DE HIDRÁULICA AMBIENTAL DE CANTABRIA). 01/01/2017-31/12/2017. 42.000 €. Co-ordinator. In this project I was in charge of the field campaigns coordination and execution, marine debris classification and sources identification, the identification of estuarine habitats affected by marine...
- 8 **Project.** Operational Potential of Ecosystem Research Applications (OPERA). FP7 (EU, Project No. 308393). Núria Marbà. (Instituto Mediterráneo d Estudios Avanzados (UIB-CSIC)). 01/12/2012-30/11/2017. 213.900 €. Team member.
- 9 **Project.** Evaluation of the carbon sink capacity of seagrass meadows in Costa Rica Caribbean Coast. Fundación Santander Universidad. (Centro de Investigación en Ciencias del Mar y Limnología, Universidad de Costa Rica). 24/10/2016-24/02/2017. 5.000 €. Team member.
- 10 **Project.** CARICOMP: Participación de Costa Rica en el programa Internacinoal de Monitoreo del Caribe (808-96-298). Jimena Samper-Villarreal. (Centro de Investigación en Ciencias del Mar y Limnología, Universidad de Costa Rica). 10/2016-01/2017.
- 11 **Project.** Sinergia y antagonismo entre múltiples estreses en ecosistemas marinos Mediterráneos. EstresX (CTM2012-32603). Ministerio de Economía y Competitividad. Susana Agustí. (Instituto Mediterráneo d Estudios Avanzados (UIB-CSIC)). 01/01/2013-31/12/2015. 228.150 €. Team member.
- 12 **Project.** Stock and vulnerability to Global Change of seagrass (*Posidonia oceanica*) carbon sinks. Posink. ASSEMBLE EU project. (IMEDEA (CSIC-UIB) and Stazione Zoologica di Napoli). 09/09/2013-30/09/2013. Team member.
- 13 **Project.** Evaluación de los impactos del Cambio Global sobre ecosistemas marinos mediterráneos (CTM2009-07013). Ministerio de Economía y Competitividad. (Instituto Mediterráneo d Estudios Avanzados (UIB-CSIC)). 01/01/2010-31/12/2012. 393.250 €. Team member.
- 14 **Project.** Arctic Tipping Points, C-ENVIR/0626-226248. EU-FP7. (Tromso University, Norway). From 2009. 4.998.098 €. Team member.
- 15 **Contract.** ZOSTECO: CONSERVACIÓN DE LAS PRADERAS DE ZOSTERA NOLTEI EN EL NO DE LA PENÍNSULA IBÉRICA: UNA INVESTIGACIÓN BASADA EN LA CARTOGRAFÍA PARTICIPATIVA DE USOS Y SERVICIOS ECOSISTÉMICOS 10/02/2021-10/12/2021. 8.500 €.