

CURRICULUM VITAE

Part A. PERSONAL INFORMATION

CV date	12/10/2023
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First name	Aurora		
Family name	Martínez Ricart		
Gender (*)	Female	Birth date	25/09/1986
Social Security, Passport, ID number	DNI:24395141F		
e-mail	amricart@icm.csic.es	Web	www.icm.csic.es www.auroramricart.com
Open Researcher and Contributor ID (ORCID) (*)	0000-0001-7769-1661		

(*) *Mandatory*

A.1. Current position

Position	Postdoctoral Researcher (MSCA IF EF-ST, PCI2021-122040-2B)		
Initial date	01/06/2022		
Institution	CSIC		
Department/Center	Marine biology and oceanography	Institut de Ciències del Mar, ICM	
Country	Spain	Teleph. number	+34 627730350
Key words	global change; marine macrophyte; seagrass; macroalgae; ecosystem resilience; coastal carbon cycle; seascape & community ecology; climate change refugia; blue carbon; acidification		

A.2. Previous positions (research activity interruptions, see call)

Period	Position/Institution/Country
2020-2022	Postdoctoral Researcher/Bigelow Laboratory for Ocean Sciences/United States
2017-2020	Postdoctoral Researcher/University of California, Davis /United States
2016-2017	Postdoctoral Researcher/Centre d'Estudis Avançats de Blanes, CEAB-CSIC/Spain
2011-2016	PhD student (FPI, BES-2011-046849)/Universitat de Barcelona/Spain

A.3. Education

	University/Country	Year
PhD Ecology	Universitat de Barcelona/Spain	2016
Master Ecology	Universitat de Barcelona/Spain	2011
Degree Biological Sciences	Universitat de Valencia/Spain	2010

Part B. CV SUMMARY

My research connects the disciplines of ecology and biogeochemistry in the coastal marine realm to understand (1) how natural ecosystems are impacted by global change, and (2) how can they help mitigate and adapt to climate change as well as serve as climate change refugia. I hold a degree in Biology (2010) by the University of Valencia-Spain, and a Master (2011) and a PhD in Ecology (2016) by the University Barcelona-Spain. My professional career has been linked to several universities and research institutions from around the world where I have occupied different positions. As an undergrad student, I visited the University of Guadalajara in Mexico (2009), where I started research work in coral reefs that led me publish my first author paper. As a PhD student I centered my research in seagrass ecosystems and did three short research stays: at the University Technology Sydney (2013) and at the Edith Cowan University in Australia (2014), and at the University of Algarve in Portugal (2014). As a postdoctoral researcher, I amplified my research to macroalgal beds, spending 6 months at the Centre d'Estudis Avançats de Blanes (CEAB-CSIC) before I moved to the United States (US) in 2017 for ~5 years. I was 2.5 years at the University of California, Davis, and 2.2 years at the Bigelow Laboratory for Ocean Sciences. I am currently a postdoctoral researcher at the Institut de Ciències del Mar (ICM-CSIC) where I landed in 2022 to develop a Marie Skłodowska Curie Action Individual Fellowship (MSCA IF EF-ST) that got the Seal of Excellence from the EU and is funded through NextGenerationEU funds by the Agencia Estatal de Investigación as a Proyecto de Colaboración Internacional.



Throughout my career, I have been awarded several individual grants by Spanish and European funding research agencies at the PhD level (Formación Personal Investigador-FPI, COST Short Term Scientific Mission, global mobility grants) and at the Postdoctoral level (MSCA IF EF-ST). Total funding accumulated through individual grants >560.000€, this includes a recently awarded a Junior Leader La Caixa Incoming grant that will start in December 2023. I have been certified as R3 Established Researcher in 2023.

Up to now, I have been funded 4 projects as Principal Investigator (PI): 3 at the University of California Davis, and 1 more at the Bigelow Laboratory for Ocean Sciences funded by US public and private agencies in competitive calls (Seagrant California, University of California, Anthropocene Institute and World Wildlife Foundation & Bezos Earth Fund). Total acquisition of funding as principal investigator > 1.500.000 €. All these projects have finished except for one that is still on-going which proves my capacity to get funding and successfully lead research projects including collaborations with industry and the private sector (i.e., aquaculture companies). Along my career I have also been a researcher member in 16 research projects and 5 contracts.

I am author of 23 papers in SCI journals (12 as 1st author and 17 without PhD supervisors), 1 book chapter and 5 technical reports on coastal environment management from contracts with external institutions. Currently, I also have 3 manuscripts under review (1 as 1st author). My publications have been cited +850 times, H=12 (Google Scholar), +500 times, H=10 (Scopus).

I have participated in 36 international conferences (23 Oral presentation + 13 Poster) and have been 1st author in 20 of them (1 invited talk at the World Seagrass Conference, 14 oral presentations, 5 posters). Further, I have been invited as a speaker to scientific seminar series in 11 research institutions in Spain, Australia, and the US.

My work has gained attention from environmental managers and international recognition which resulted in invitations as expert scientific advisor for governmental agencies to develop policy (e.g., California State, Scotland and Australian governments); invitation to develop novel research frameworks (Oceans Visions-MBARI); invitation to international research networks and projects (International Atomic Energy Agency, Oceans 2050); as well as invitation to review research proposals and reports from international calls (US, Iceland, Australia, United Nations).

I have developed supervision and teaching activities (University of California, Davis, US; Universitat de Barcelona, Spain). I have mentored 8 masters and +20 undergraduate students and interns. Just in the school year 2022-2023, I supervised 3 Master theses (2 **Erasmus** + students from the University of Groningen, The Netherlands, and 1 student from the University of Barcelona, Spain) all of them scored > 9.0 over 10. I am also part of the **JAE Intro** training program with one trainee under my supervision at ICM. Some of the students' works have been presented at international conferences and published in scientific journals. I have also been a member of evaluation student committees in 2 PhD thesis (University of Barcelona and University of Girona, Spain), and 3 Master theses (Sonoma State University, US and Edith Cowan University, Australia). I am an active reviewer for scientific journals (+20), and I am heavily committed to STEM outreach activities. I have participated in research programs for schools, and have extensive experience in science communication to the general public. I am also frequently contacted by journalists from different media outlets. Thus, my work has been featured in Science, Forbes, Los Angeles Times, San Francisco Chronicle, Scientific American, etc.

Part C. RELEVANT MERITS

C.1. Publications: 10 most relevant publications in SCI journals. (*) indicates corresponding author.

1. ***Ricart AM**, Krause-Jensen D, Hancke K, Price NN, Masque P, Duarte CM (2022). *Sinking seaweed in the deep ocean for carbon neutrality is ahead of science and beyond the ethics*. Environmental Research Letters 17 DOI: 10.1088/1748-9326/ac82ff. Q1, IF 6.947 Times cited: 28
2. ***Ricart AM**, Ward M, Hill TM, Sanford E, Kroeker KJ, Takeshita Y, Merolla S, Shukla P, Ninokawa A, Elsmore K, Gaylord B (2021). *Coast-wide evidence of low pH amelioration by seagrass ecosystems*. Global Change Biology 27, 2580-2591. DOI: 10.1111/gcb.15594. Q1 IF 13.21 Times cited: 62



3. ***Ricart AM**, Hill TM, Gaylord B, Ward M, Sigwart J, Ninokawa A, Shukla P, Sanford E (2021). *Seagrass driven changes in carbonate chemistry enhance oyster shell growth*. *Oecologia* 196, 565-576. DOI: 10.1007/s00442-021-04949-0. Q2 IF 3.23 Times cited: 19
4. ***Ricart AM**, York PH, Bryant C, Rasheed MA, Ierodiaconou D, Macreadie PI (2020) *High variability of Blue Carbon storage in seagrass meadows at the estuary scale*. *Scientific Reports* 10, 5865. DOI: 10.1038/s41598-020-62639-y. Q1 IF 4.13 Times cited: 77
5. ***Ricart AM**, Sanmartí N, Pérez M, Romero J (2018) *Multilevel assessments reveal spatially scaled landscape patterns driving coastal fish assemblages*. *Marine Environmental Research* 140, 210-220. DOI: 10.1016/j.marenvres.2018.06.015. Q1 IF 3.13 Times cited: 12
6. ***Ricart AM**, García M, Weitzman B, Linares C, Hereu B, Ballesteros E (2018) *Long-term shifts in the north western Mediterranean coastal seascape: The habitat forming seaweed *Codium vermilara**. *Marine Pollution Bulletin* 127, 334-341. DOI: 10.1016/j.marpolbul.2017.12.019. Q1 IF 3.78 Times cited: 12
7. ***Ricart AM**, Pérez M, Romero J (2017) *Landscape configuration modulates carbon storage in seagrass sediments*. *Estuarine, Coastal and Shelf Science* 185 69-76. DOI: 10.1016/j.ecss.2016.12.011. Q1 IF 2.41 Times cited: 65
8. **Ricart AM**, *Rodríguez-Zaragoza FA, González-Salas C, Ortiz M, Cupul-Magaña AL, Adjeroud M (2016) *Coral reef fish assemblages at Clipperton Atoll (Tropical Eastern Pacific) in relation to live coral cover*. *Scientia Marina* 80 (4) 479-486. DOI: 10.3989/scimar.04301.12B. Q3 IF 1 Times cited: 10
9. ***Ricart AM**, York PH, Rasheed MA, Pérez M, Romero J, Bryant CV, Macreadie PI (2015) *Variability of sedimentary organic carbon in patchy seagrass landscapes*. *Marine Pollution Bulletin* 100:476–482. DOI: 10.1016/j.marpolbul.2015.09.032. Q1 IF 3.09 Times cited: 100
10. ***Ricart AM**, Dalmau A, Pérez M, Romero J (2015) *Effects of landscape configuration on the exchange of materials in seagrass ecosystems*. *Marine Ecology Progress Series* 532:89–100. DOI: doi.org/10.3354/meps11384. Q1 IF 2.7 Times cited: 41

C.2. Congress: 10 most relevant contributions.

1. Ricart AM, Olivé I, Hernan G (2022). *Carbon ecosystem services: The role of seagrasses in carbon cycling and climate change mitigation and adaptation*. 14th **International Seagrass Biology Workshop**, Annapolis, Maryland, US. Oral presentation.
2. Ricart AM (2021) *Ocean Acidification and the Role of Seagrasses in Mitigation*. **World Seagrass Conference & International Seagrass Biology Workshop – Seminar Series**. Virtual. Invited talk.
3. Ricart AM, Ward M, Hill TM, Gaylord B, Sanford E, Kroeker K, Merolla S, Shukla P, Takeshita Y (2020) *Seagrass ecosystems buffer pH in coastal areas*. **Ocean Sciences Meeting 2020**, San Diego, California, US. Poster.
4. Ricart AM*, Sanford E, Gaylord B, Hill T (2019) *Marine forests, victims or heroes? Seagrass ecosystems as climate change mitigation tools*. University of California, Davis **Postdoctoral Research Symposium**, Davis, California, US. Oral presentation. Awarded Best Oral Presentation
5. Ricart AM, Sanford E, Gaylord B, Shukla P, Ward M, Hill T (2018) *Natural pH variability driven by seagrass metabolism affects oyster growth: insights into potential mitigation of ocean acidification*. 99th **Western Society of Naturalists**, Tacoma, Washington, US. Oral presentation.
6. Ricart AM, Pérez M, Romero J (2016) *Landscape configuration modulates seagrass carbon storage capacity*. 12th **International Seagrass Biology Workshop**, Wales, UK. Oral presentation.
7. Ricart AM, Sanmartí N, Pérez M, Romero J (2016) *Influence of landscape patterns on coastal fish assemblages*. 11th **International Temperate Reefs Symposium**, Pisa, Italy. Oral presentation.
8. Ricart AM, Pérez M, Macreadie PI, York PH, Romero J (2015) *Variability of sediment organic matter sources in seagrass landscapes*. **Association for the Sciences of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting 2015**, Granada, Spain. Oral presentation.
9. Ricart AM, Dalmau A, Pérez M, Romero J (2014) *Effects of landscape configuration on the exchange of materials among seagrass and surrounding habitats in the marine coastal ecosystem*. 11th **International Seagrass Biology Workshop**, Sanya, China. Oral presentation.
10. Ricart AM, Dalmau A, Pérez M, Romero J (2014) *Sources of organic matter into surface sediments of *Posidonia oceanica* seagrass meadows: The importance of landscape configuration*. *Seagrass in Europe: Threats, Responses and Management Final Conference of COST Action ES0906*, Olhão, Portugal. Oral presentation.

C.3. Research projects: 10 most relevant projects as Principal Investigator (PI) or Researcher.

❖ PI in research projects under evaluation:

1. **Consolidación Investigadora.** Funding requested and timeline: 189.000 € for 2 years.

❖ PI in funded research projects (total funding accumulated >1.9M€):

2. **Junior Leader La Caixa 2023** – Incoming. PI **Dr. Aurora M Ricart**. Funding requested and timeline: 305.100 € for 3 years. To start in December 2023.
3. 2022-2024. **Marie Skłodowska Curie Action** (MSCA IF EF-ST), PCI2021-122040-2B, funded by MCIN/AEI/10.13039/501100011033 and the EU “NextGenerationEU”/ PRTR”. PI **Dr. Aurora M Ricart** and Dr. Carles Pelejero as ICM host. Spain. 170.000€.
4. 2021-2023 [Ecosystem services of farmed kelp](#). PIs Dr. Nichole Price and **Dr. Aurora M Ricart**. Funded by World Wildlife Foundation & Bezos Earth Fund, United States. 900.000\$.
5. 2020-2022. [A multi-pronged approach to kelp recovery along California’s north coast. R/HCE-15](#). PIs Dr. Brian Gaylord, **Dr. Aurora M Ricart**, Dr. Marissa Basket, Dr. Matt Edwards, Dr. Brent Hughes, Dr. Mackenzie Zippay, Dr. Sean Place and Dr. Jason Hodin. Funded by California Seagrant, United States. 719.000\$.
6. 2020-2021. [Adding resilience to kelp forests through the development of heat tolerant varieties for restoration](#). PIs Dr. Brent B. Hughes, **Dr. Aurora M Ricart** and Dr. Mackenzie Zippay. Funded by the Anthropocene Institute, United States. 50,000\$.
7. 2020. [DataLab start-up interdisciplinary collaboration project: Big data and oceanographic and ecological insights for decision making on ocean acidification](#). PIs Dr. Tessa Hill and **Dr. Aurora M Ricart**. Funded by DataLab Initiative, University of California, Davis, United States. 3 months of dedicated DataLab staff + 1500\$ for licensing data.

❖ Participation in funded projects as researcher (showing 3 out of 16)

8. 2020-2021. *Phytoremediation potential of farmed kelp*. PIs Dr. Nichole Price, Dr. Suzanne Arnold, Dr. Joe Salisbury. Funded by NOAA, United States. Role: Postdoctoral Researcher.
9. 2016-2019. *Context and scale of seagrass effects on estuarine acidification: An academic industry partnership to explore mitigation potential*. PIs Dr. Tessa Hill, Dr. Brian Gaylord, Dr. Eric Sanford, Dr. Kristy Kroeker. Funded by California Seagrant and Ocean Protection Council. United States. Role: Postdoctoral Researcher.
10. 2011-2013. *Experimental evaluation of the effects of landscape attributes on functional interactions within coastal ecosystems mosaics (ECOMOS)*, CTM2010- 22273-C02-01. PIs: Dr. Javier Romero, Dr. Marta Pérez, Dr. Teresa Alcoverro. Funded by Spanish Ministry of Science and Innovation, Spain. Role: Graduate Student Researcher.

C.4. Contracts, technological or transfer merits

1. 2023. *Blue Forests. A review of carbon offset strategies with seaweed aquaculture – feasibility, current knowledge, and suggestions for future research*. PI: Dr. Alasdair O’Dell. Funded by: Scottish Government, UK. Role: Expert member of working group.
2. 2022. *Answering Critical Questions About Sinking Macroalgae for Carbon Dioxide Removal: A Research Framework to Investigate Sequestration Efficacy and Environmental Impacts*. PI: Dr. Dave Koweeck. Funded by: Ocean Visions and Monterey Bay Aquarium Research Institute, United States. Role: Expert member of working group.
3. 2016. *Seagrass habitat mapping in Alfacs Bay (delta de l’Ebre)*. PI: Dr. Marta Pérez. Funded by Govern de Catalunya-Diputació de Barcelona, Spain. Role: Graduate Student Researcher.
4. 2014-2017. *Monitoring of the macroalgae indicator of the DMA (2000/60/CE) in the coastal waters of Catalonia for the calculation of the CARLIT biological quality index and control of invasive species for the calculation of the Biopollution index in the coastal and transitional waters of the bays of the Ebro Delta* CTN1500528. PI. Dr. Enric Ballesteros. Funded by Agència Catalana de l’Aigua, Spain. Role: Graduate Student Researcher.
5. 2014 & 2016 *Monitoring of submerged habitats at Parc Natural De Cap De Creus and Parc Natural Del Montgrí, Les Illes Medes I El Baix Ter*. PI. Dr Bernat Hereu. Funded by Generalitat de Catalunya, Spain. Role: Graduate Student Researcher.
6. 2013-2018. *Implementation of the European Water Framework Directive and Marine Strategies in the Spanish Mediterranean*. PI: Dr. Enric Ballesteros. Funded by Spanish National Research Council (CSIC), Spain. Role: Graduate Student Researcher.