Aurora M Ricart

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Education

* 2012-2016. **Ph.D. in Fundamental and Applied Ecology**, April 2016. *Insights into seascape ecology:* *Landscape patterns as drivers in coastal marine ecosystems*. Universitat de Barcelona (Barcelona, Spain). Advisors: Dr. Javier Romero and Dr. Marta Pérez.
* 2010-2011. **M.Sc. in Fundamental and Applied Ecology**, September 2011. *Benthic habitat mapping of Medes Islands and temporal comparison of benthic communities*. Universitat de Barcelona (Barcelona, Spain). Advisors: Dr. Bernat Hereu and Dr. Cristina Linares.
* 2005-2010. **B.Sc. Biology**, July 2010. Universitat de Valencia (Valencia, Spain).

Research interests

Global change ecology; Marine macrophytes; Ecosystem resilience; Carbon ecosystem services; Climate change refugia; Seascape ecology; Community ecology; Coastal carbon cycle: Blue carbon; Biological oceanography; Ocean acidification; Global warming; Human impacts; Remote sensing and benthic habitat mapping.

Current position

* 2022 –present. **Researcher** at the Institute of Marine Sciences of the Spanish National Research Council (Spain).
* 2022 –present. **Adjunct Scientist** at the Bigelow Laboratory for Ocean Sciences (US).
* Previous positions
* 2020-2022. **Postdoctoral Research Scholar** at the Bigelow Laboratory for Ocean Sciences (US). Advisor: Dr. Nichole Price.
* 2017-2020. **Postdoctoral Research Scholar** at University of California, Davis and Bodega Marine Laboratory (US). Advisors: Dr. Tessa Hill, Dr. Brian Gaylord, and Dr. Eric Sanford.
* 2011-2016. **Ph.D. candidate** at the Department of Ecology, Universitat de Barcelona (Spain).
* 2010-2011. **Research assistant** at the Department of Ecology, Universitat de Barcelona (Spain).
* 2009-2010. **Research assistant** at Cavanilles Biodiversity Institute, University of Valencia (Spain).
* 2008-2009. **Research assistant** at the Marine Ecology Group, University of Guadalajara (Mexico).

Peer-reviewed publications (total 24 & 12 as first author)

1. Chopin T, Costa-Pierce BA, Troell M, Hurd CL, Costello MJ, Backman S, Buschmann AH, Cuhel R, Duarte CM, Gröndahl F, Heasman K, Haroun RJ, Johansen J, Jueterbock A, Lench M, Lindell S, Pavia H, **Ricart AM**, Sundell KS, Yarish C (2024) Deep-ocean seaweed dumping for carbon sequestration: Questionable, risky, and not the best use of valuable biomass. One Earth.
2. Kennedy EG, Zulian M, Hamilton SL, Hill TM, Delgado M, Fish CR, Gaylord B, Kroeker KJ, Palmer HM, **Ricart AM**, Sanford E, Spalding AK, Ward M, Carrasco G, Elliott M, Grisby GV, Harris E, Jahncke J, Rocheleau CN, Westerink S, Wilmot MI (2024) A high-resolution synthesis dataset for multistressor analyses along the US West Coast, Earth System Science Data, 16, 219–243
3. Eger, A.M., Aguirre, J.D., Altamirano, M. et al. (2023) The Kelp Forest Challenge: A collaborative global movement to protect and restore 4 million hectares of kelp forests. Journal of Applied Phycology.
4. Hamilton SL, Kennedy EG, Zulian M, Hill TM, Gaylord B, Sanford E, **Ricart AM**, Ward W, Spalding AK, Kroeker K (2023) Variable exposure to multiple climate stressors across the California marine protected area network and policy implications. [ICES Journal of Marine Science](https://academic.oup.com/icesjms/article/80/7/1923/7231250) 80, 7, 23–1935.
5. **Ricart AM**, Honisch B, Fachon E, Hunt C, Salisbury J, Arnold S, Price N (2023). *Optimizing marine macrophyte capacity to locally ameliorate ocean acidification under variable light and flow regimes: Insights from an experimental approach*. [PLOS ONE 18(10): e0288548.](https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0288548)

**19. Ricart AM,** Krause-Jensen D, Hancke K, Price NN, Masqué 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, 081003.

**18.** Traganos D, Lee CB, Blume A, Poursanidis D, Čižmek H, Deter J, Mačić V, Montefalcone M, Pergent G, Pergent-Martini C, **Ricart AM**, Reinartz P (2022) *Spatially explicit seagrass extent mapping across the entire Mediterranean*. Frontiers in Marine Science 9:871799.

**17.** Sanmartí N, Ontoria Y, **Ricart AM**, Rohan A, Alcoverro T, Pérez M, Romero J (2022). *Exploring coexistence mechanisms in a three-species assemblage.* Marine Environmental Research 178, 105647.

**16. Ricart AM**, Ward M, Hill TM, Sanford E, Kroeker KJ, Takeshita Y, Merolla S, Shukla P, Ninokawa A, Elsmore K, Gaylord B (2021). *Commentary: Overstated potential for seagrass meadows to mitigate coastal ocean acidification*. Frontiers in Marine Science 9:884857.

**15. Ward M,**Hill TM, Souza C, Filipczyk T, **Ricart AM**, Merolla S, Capece LR, O’Donnell BC, Elsmore K, Oechel WC, and Beheshti KM (2021). *Blue Carbon Stocks and Exchanges Along the Pacific West Coast*. Biogeosciences 18, 4717-4732.

**14. 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.

**13.** **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.

1. Sanmartí N, **Ricart AM**, Ontoria Y, Pérez M, Romero J (2021) *Recovery of a fast-growing seagrass from small-scale mechanical disturbances: effects of intensity, size and seasonal timing.* Marine Pollution Bulletin 162, 111873.

**11. Ricart AM**, York PH, Bryant CV, Rasheed MA, Ierodiaconou D, Macreadie PI (2020) *High variability of blue carbon storage in seagrass meadows at the estuary scale*. Scientific Reports, 10: 5865.

**10.** **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.

**9.** **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*](javascript:void(0))*.* Marine Pollution Bulletin 127, 334-341.

**8.** Mariani S, Ocaña OV, López-Sendino P, García M, **Ricart AM,** Garrabou J, Ballesteros E (2018) The zooxanthellate scleractinian coral Oulastrea crispata (Lamarck, 1816), an overlooked newcomer in the Mediterranean Sea? Mediterranean Marine Science 19 (3): 589-594.

**7.** Lovelock C, Atwood T, Baldock J, Duarte C, Hickey S, Lavery P, Masqué P, Macreadie P, **Ricart AM**, Serrano O, Steven A (2017) *Assessing the risk of CO2 emissions from blue carbon ecosystems.* Frontiers in Ecology and the Environment 15 (5) 257-265.

**6.** **Ricart AM**, Pérez M, Romero J (2017) *Landscape configuration modulates carbon storage in seagrass sediments*. Estuarine, Coastal and Shelf Science 185 69-76.

**5.** **Ricart AM**, Rodríguez-ZaragozaFA, González-Salas C, Ortiz M, Cupul-MagañaAL, 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.

**4.** Serrano O, **Ricart AM**, Lavery PS, Mateo MA, Arias-Ortiz A, Masque P, Rozaimi M, StevenA, Duarte CM (2016) *Key biogeochemical factors affecting soil carbon storage in Posidonia meadows*. Biogeosciences 13:4581-4594.

**3.** **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. \* Mentored graduate student.

**2.** **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.

**1.** Macreadie PI, York PH, Sherman CDH, Keough MJ, Ross DJ, **Ricart AM**, Smith TM (2014) *No detectable impact of small-scale disturbances on ‘blue carbon’ within seagrass beds*. Marine Biology: 2939–2944.

Book Chapters and Technical Reports

* O’Dell A, Adrian A, Canvin M, de Bettignies F, Filbee-Dexter K, Grisenthwaite R, Hughes A, Hancke K, Krause-Jensen D, MacLeod, A, Moore P, **Ricart AM**, Rostan J, Stanley M, Smale DA, Smeaton C, Troell M, Burrows MT (2023) *A review of carbon offset strategies with seaweed aquaculture – feasibility, current knowledge, and suggestions for future research.* The Scottish Association for Marine Science, Oban, UK. Report prepared for the Scottish Government. Scottish Association for Marine Science, 22pp. Technical report. <https://plymsea.ac.uk/id/eprint/10001/>
* Koweek D, Barry J, Mastroni S et al. (2022) *Answering Critical Questions About Sinking Macroalgae for Carbon Dioxide Removal: A Research Framework to Investigate Sequestration Efficacy and Environmental Impacts*. Ocean Visions and Monterey Bay Aquarium Research Institute. Technical report. <https://oceanvisions.org/our-programs/macroalgaeresearchframework/>
* Ballesteros E, **Ricart AM**, Mariani S, García M, Jordana E, Torras X, Pinedo S, Satta P (2017) 1 *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. CEAB-CSIC. Technical report.
* Hereu B, Romero J, Díaz D, Aspillaga E, Capdevila P, Garcia Rubies A, Linares C, **Ricart AM**, Mariani S, Montero I, Pérez M, Sanmartí N, Zabala M (2016) 1 *Monitoring of submerged habitats at Parc Natural De Cap De Creus and Parc Natural Del Montgrí, Les Illes Medes I El Baix Ter*. Technical report.
* Pérez M, **Ricart AM**, Sanmartí N, Romero J (2016) 1 *Seagrass habitat mapping in* Alfacs Bay (delta de l’Ebre). Technical report.
* Hereu B, Romero J, Díaz D, Aspillaga E, Capdevila P, Garcia Rubies A, Garrabou J, Linares C, **Ricart AM**, Mascaró O, Montero I, Pérez M, Sanmartí N, Zabala M (2014) 1 *Monitoring of submerged habitats at Parc Natural De Cap De Creus and Parc Natural Del Montgrí, Les Illes Medes I El Baix Ter*. Technical report.
* Hereu B, Linares C, **Ricart AM**, Rodríguez A, Aspillaga E, Díaz D, Navarro L, Riera JL (2012) [[1]](#footnote-1) *The seabed of the Medes Islands and the Montgrí: four decades of research for conservation.* Recerca i territori. Cartografia bionòmica dels hàbitats de la costa del Montgrí i les illes Medes. 4, Càtedra d’Ecosistemes Litorals Mediterranis Parc Natural del Montgrí, les Illes Medes i el Baix Ter Museu de la Mediterrània. Book Chapter. <https://www.museudelamediterrania.cat/ca/artistes/l/1074-recerca-i-territori.html>
* Hereu B, Linares C, **Ricart AM**, Díaz D, Riera JL, Rodríguez A (2011)1 *Bionomic cartography of submerged habitats of Medes Islands*. Technical report.

Grantsmanship

* Lead role in collaborative research projects:
* 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. 900000$. <https://www.bigelow.org/news/articles/2021-02-02.html>
* 2020-2022. *A multi-pronged approach to kelp recovery along California’s north coast*. PIs Dr. Brian Gaylord, **Dr. Aurora M Ricart**, Dr. Marissa Basket, Dr. Matt Edwards, Dr. Brent Hughes, Dr. Mackenzie Zippay, Dr. Sean Place and Dr. Jason Hodin. Funded by California Seagrant, United States. 719000$. <https://caseagrant.ucsd.edu/our-work/research-projects/a-multi-pronged-approach-to-kelp-recovery-along-californias-north-coast>
* 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. 50000$. <https://anthrocean.org/>
* 2020. *DataLab start-up interdisciplinary collaboration project: Big data and oceanographic and ecological insights for decision making on ocean acidification*. PIs Dr. Tessa Hill and **Dr. Aurora M Ricart**. Funded by DataLab Initiative, University of California, Davis, United States. 3 months of dedicated DataLab staff + 1500$ for licensing data. <https://datalab.ucdavis.edu/2020/05/21/activating-ocean-acidification-research/>
* Individual Grants & Fellowships[[2]](#footnote-2)
* 2023-2026. **Junior Leader La Caixa Incoming**. PI **Dr. Aurora M Ricart**. Spain. 305000€.
* 2022-2024. **Marie Sklodowska Curie Action** (MSCA IF EF-ST 2020), PCI2021-122040-2B, funded by MCIN/AEI/10.13039/501100011033 and the EU “NextGenerationEU”/ PRTR”. PI **Dr. Aurora M Ricart**. Spain. 170000€.
* 2011-2015. **PhD fellowship**, *Formación de Personal Investigador (FPI)*(BES-2011-046849) awarded by the Spanish Ministry of Science to cover 4 years of stipend at the Universitat de Barcelona, Department of Ecology (Barcelona, Spain). 80000€
* 2014. **Global Mobility research grant** (EEBB-I-14-09024) awarded by the Talent Promotion Program of the Spanish Ministry of Economy to develop a research project at the Edith Cowan University (Perth, Australia). 4230€
* 2014. **Short Term Scientific Mission grant** (COST ES0906-06452)awarded by the European Union COST Program to develop a research project at the University of Algarve (Faro, Portugal). 1400 €
* 2014. **Evamaria Koch Student grant** awarded by the World Seagrass Association to participate in the 11th International Seagrass Biology Workshop (China). 800$
* 2013. **Global Mobility research grant** (EEBB-I-13-06916) awarded by the Talent Promotion Program of the Spanish Ministry of Economy to develop a research project at the University of Technology Sydney (Australia). 8400€
* 2009. **International Exchange** **fellowship** for undergrad research awarded by the International Program of the University of Valencia at the University of Guadalajara (México). 5000€

Research experience: (participation in funded projects & contracts)

1. 2020-2022. *Seaweed Carbon Farming 2050 Program.*LeadPI Dr. Carlos Duarte. +30 international participants. Funded by Oceans2050 (Germany), the Jeremy and Hannelore Grantham Environmental Trust, World Wildlife Foundation & Bezos Earth Fund and the Climate Works Ocean Carbon Disposal and Removal Foundation **United States**. Role: Senior personal.
2. 2022. *Answering Critical Questions About Sinking Macroalgae for Carbon Dioxide Removal: A Research Framework to Investigate Sequestration Efficacy and Environmental Impacts*. Lead PI. Dr. Dave Koweek. Funded by: Ocean Visions and Monterey Bay Aquarium Research Institute. Role: Expert member of working group.
3. 2020-2021. *Phytoremediation potential of farmed kelp.* Lead PI: Dr. Nichole Price. CO-PIs: Dr. Suzanne Arnold, Dr. Joe Salisbury. Funded by NOAA, **United States**. Role: Postdoctoral Researcher.
4. 2020-2023. *Benefits of Co-cultivating Mussels and Kelp in a Changing Ocean*. Lead PI: Dr. Nichole Price. CO-PI: Dr. Suzanne Arnold. Funded by WWF, **United States**. Role: Postdoctoral Researcher.
5. 2019-2020. *Oceanographic and Ecological Insights for Decision Making on Ocean Acidification.* Lead PI: Dr. Tessa Hill. CO-PIs: Dr. Brian Gaylord, Dr. Eric Sanford, Dr. Kristy Kroeker, Dr. Ana Spalding, Dr. Liz Whiteman. Funded by Ocean Protection Council and the Lenfest Ocean Program, **United States**. Role: Postdoctoral Researcher.
6. 2016-2019. *Context and scale of seagrass effects on estuarine acidification: An academic industry partnership to explore mitigation potential.* Lead PI: Dr. Tessa Hill. CO-PIs: Dr. Brian Gaylord, Dr. Eric Sanford, Dr. Kristy Kroeker. Funded by California Seagrant and Ocean Protection Council. **United States**. Role: Postdoctoral Researcher.
7. 2016. *Seagrass habitat mapping in Alfacs Bay (delta de l’Ebre)[[3]](#footnote-3).* PI: Dr. Marta Pérez. Funded by Govern de Catalunya-Diputació de Barcelona, **Spain**.Role: Graduate Student Researcher.
8. *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* CTN15005283. PI. Dr. Enric Ballesteros. Funded by Agència Catalana de l’Aigua. **Spain**. Role: Graduate Student Researcher.
9. 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*3. PI. Dr Bernat Hereu. **Spain**. Role: Graduate Student Researcher.
10. 2013-2018. *Implementation of the European Water Framework Directive and Marine Strategies in the Spanish Mediterranean*3. PI: Dr. Enric Ballesteros. Funded by Spanish National Research Council (CSIC), **Spain**. Role: Graduate Student Researcher.
11. 2013-2016. *Seagrass meadows resilience to global warming: an analysis based on responses at ecophysiological, population and ecosystems levels (RECCAM)*. Lead PI: Dr. Javier Romero. CO-PIs: Dr. Marta Pérez, Dr. Teresa Alcoverro, Dr. Gabriele Procaccini, Dr. Juan Manuel Ruiz. Funded by Spanish Ministry of Science and Innovation, **Spain**. Role: Graduate Student Researcher.
12. 2013-2014. *Coastal Carbon Cluster.* PIs Dr Andy Stevens, Dr Peter Ralph, Dr Carlos Duarte. Funded by Commonwealth Scientific and Industrial Research Organization (CSIRO), **Australia**. Role: Graduate Student Researcher.
13. 2012-2014. *Seagrass productivity: from genes to ecosystem management COST Action*. Lead PI Dr Rui Santos. Funded by the European Cooperation in Science and Technology (COST) Program, Europe. Participation in research developed in **Portugal and Italy.** Role: Graduate Student Researcher.
14. 2011-2013. *Experimental evaluation of the effects of landscape attributes on functional interactions within coastal ecosystems mosaics (ECOMOS)*. Lead PI: Dr. Javier Romero. CO-PIs: Dr. Marta Pérez, Dr. Teresa Alcoverro. Funded by Spanish Ministry of Science and Innovation, **Spain**. Role: Graduate Student Researcher.
15. 2010-2011. *Bionomical cartography of the submerged coastline of Montgrí and Medes Islands*3*.* PI: Dr. Bernat Hereu*.* Funded by Govern de Catalunya-Diputació de Girona, **Spain**. Role: Research assistant.
16. 2009-2010. *Mediterranean Database of Cetacean Stranding (MEDACES).* PI: Dr. Toni Raga. Funded by Spanish Ministry of Science and Technology, **Spain**. Role: Research assistant.
17. 2008-2011. *Multi-scale assessment of bivalve mollusks diversity on intertidal systems of Bahia de Mazatlan, Mexico*. PI: Dr. Eduardo Rios Jara. Funded by National Council of Science and Technology of Mexico (CONACYT), **Mexico**. Role: Research assistant.
18. 2007-2013. *Marine Ecosystems Functions in Isla Isabel National Park, Nayarit, Mexico. Biodiversity Conservation and Ecosystem Management*. PI: Dr. Fabián Rodríguez Zaragoza. Funded by the National Council of Science and Technology of Mexico (CONACYT), **Mexico**. Role: Research assistant.

Invited talks

* Institut de Ciències del Mar, ICM-CSIC (Spain). *Unraveling the potential of seagrass and macroalgal ecosystems as climate change refugia and carbon sequestration hotspots.* February 2024. <https://www.youtube.com/watch?v=pThugM81xCk>
* Marine Sciences Institute-University of Texas (United States). *Marine macrophytes as nature-based solutions for climate change mitigation and adaptation.* April 2023.
* Bigelow Laboratory for Ocean Sciences (United States). *Who helps whom? Marine macrophytes as nature-based solutions for climate change mitigation and adaptation.* October 2021.
* NOAA - National Marine Sanctuaries Webinar Series (United States) *Seagrass Meadows: Unsung Heroes in Combating Climate Change?* August 2021. <https://sanctuaries.noaa.gov/education/teachers/seagrass-meadows.html>
* World Seagrass Conference & International Seagrass Biology Workshop – Pre-event Seminar Series (**Keynote Speaker**. International-virtual event). ***Ocean Acidification and the Role of Seagrasses in Mitigation.* May 2021.** <https://www.youtube.com/watch?v=ncQwKNrgbBE&feature=youtu.be>
* Monterrey Bay Aquarium Research Institute Board of Directors Meeting(United States).*Seagrass and Kelp Forests for ocean acidification mitigation.* June 2021.
* Estuary and Ocean Science Center - San Francisco State University (United States). *Who helps whom? The role of marine forests on the mitigation and adaptation to climate change.* March 2021.
* Bigelow Laboratory for Ocean Sciences (United States). *The role of marine macrophytes on the mitigation and adaptation to global change.* October 2020.
* Oregon Institute of Marine Biology, University of Oregon (United States). *The influence of seagrass meadows on the seawater carbonate system and its ecological implications.* May 2020.
* California State University Monterrey Bay (United States). *The influence of seagrass meadows on the seawater carbonate system and their role as ocean acidification refugia.* March 2020.
* Department of Evolution and Ecology, University of California, Davis (United States)*. The influence of seagrass meadows on the seawater carbonate system and its ecological implications.* January 2020.
* Sonoma State University (United States). *Seagrass ecosystems resilience and their potential role as ocean acidification refugia.* November 2019.
* Center for Advanced Studies of Blanes - Spanish National Research Council (Spain). *Landscape patterns as key drivers in coastal marine ecosystems*. May 2017.
* Department of Ecology, Universitat de Barcelona (Spain), *Landscape patterns as key drivers in coastal marine ecosystems*. January 2016.
* Edith Cowan University (Australia). *Effects of landscape composition and configuration on seagrass ecosystems*. October 2014.
* Universitat de Barcelona (Spain). *From the physiology to the seascape: A multi-scale approach to the ecology of seagrasses*. February 2014.

Conference presentations (total 47 & 19 as first author)

1. Hamilton S, Delgado M, Gaylord B, Kennedy E, Kroeker K, **Ricart AM**, Sanford E, Spalding A, Walker B, Ward M, Zulian M, Hill T (2023). *A mechanistic multi-stressor climate vulnerability index for U.S. West Coast shellfish*. CERF. Portland, Oregon, US. Talk.
2. **Ricart AM**, Meléndez M, Honisch B, Record N, Hunt C, Salisbury J, Arnold S, Price N(2023). *Carbon sequestration and creation of climate change refugia in seaweed farming*. Association for the Sciences of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting 2023, Palma de Mallorca, Spain. Talk.
3. De los Santos,Martins M, Carrasco A, Ito P, **Ricart AM**, Masqué P, Santos R(2023). *Blue carbon stocks in intertidal seagrass and saltmarsh habitats of the Ria Formosa lagoon (South Portugal) accounting with spatial variability.* Association for the Sciences of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting 2023, Palma de Mallorca, Spain. Talk.
4. Price N, Tan S, Jourdain E, **Ricart AM**, Countway, PD, Emerson D, Farrell S, Honisch B, Kamalanathan M, O’Neill S, Rasher D, Sleith R, Yui D, Rich J, (2023). *Developing tools and processes to measure, report, and verify carbon uptake, deposition, and sequestration rates around seaweed farms.*  International Seaweed Symposium 2023. Hobart. Tasmania. Australia. Talk.
5. ZulianM, Delgado M, Grisby GV, Hamilton S, Hill T, KennedyE, **Ricart AM**, SanfordE, Spalding AK, Ward M (2023) *Hypoxia and Ocean Acidification Vulnerability Assessment of**California Benthic Invertebrates: Insights from an oceanographic data synthesis.* Ecological Society of America. Portland, Oregon, US. Talk.
6. Hamilton S, Delgado M, Gaylord B, Green K, Kennedy E, Kroeker K, Levine A, **Ricart AM**, Sanford E, Spalding A, Walker B, Ward M, Wolters E, Zulian M, Hill T (2023). *Creating mechanistic, multiple stressor climate vulnerability assessments for U.S. West Coast shellfish*. Ecological Society of America. Portland, Oregon, US. Talk.
7. **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. Talk.
8. Lee CB, Blume A, Poursanidis D, Čižmek H, Deter J, Mačić V, Montefalcone M, Pergent G, Pergent-Martini C, **Ricart AM**, Reinartz P, Traganos D (2022) *Spatially explicit seagrass extent mapping across the entire Mediterranean*. 4th ESP Europe Conference, Heraklion, Greece. Talk.
9. Hughes B, **Ricart AM**, Gómez J\*, Karm R\*, Souza V, Dias A, Velazquez M, Cavanaugh K, Cavanaugh K, Saccomanno V (2022). Land-to-sea connectivity and the persistence of northern California kelp forests. 103th Western Society of Naturalists. Oxnard, California. US. Talk. \* Mentored graduate student
10. Hamilton S, Gaylord B, Kennedy E, Kroeker K, **Ricart AM**, Sanford E, Walker B, Ward M, Zulian M, Hill T (2022). Using Open Data to Explore Patterns of Hypoxia and Low pH Exposure in the California Current. 103th Western Society of Naturalists. Oxnard, California. US. Talk.
11. Zulian M, Hill T, Kennedy E, Delgado M, Carrasco L, Hamilton S, Westerink S, Harris E, Merolla S, **Ricart AM**, Spalding A, Kroeker K, Sanford E, Ward M, Bradley D\*, Palmer H, Fish CR, Saley A (2022) Exposure to chemical stressors in culturally, ecologically, and economically important benthic invertebrates of California: New insights from observational data. 103th Western Society of Naturalists. Oxnard, California. US. Talk. \* Mentored undergraduate student
12. Hamilton S, Kennedy E, Hill T, Zulian M, **Ricart AM**, Ward M, Sanford E, Gaylord B, Kroeker K (2022). *Using open data to assess exposure to multiple stressors in the California Current*. Eastern Pacific Ocean Conference. Mt. Hood, Oregon. US. Talk.
13. Zulian M, Hill T, Kennedy E, Merolla S, **Ricart AM**, Kroeker K, Gaylord B, Sanford E, Walker B, Palmer H, Fish CR, Saley A (2022) *The lives of critical coastal organisms and their chemical stressors: effectiveness of existing monitoring networks in the California Current*. Ocean Sciences Meeting. Hawaii. US. Poster.
14. Kennedy E, Hill T, Zulian M, **Ricart AM**, Merolla S, Bradley D\*, Fish CR, Saley AM, Ward M, Spalding A, Sanford E, Gaylord B, Kroeker K (2021) *An integrated understanding of oceanographic stressors and climate extremes in the southern California bight from 1984 to the present*. AGU Fall Meeting. New Orleans, US. Poster. \* Mentored undergraduate student
15. Zulian M, Hill T, Kimball J, Kennedy E, Merolla S, Bradley D\*, **Ricart AM**, Spalding A, Kroeker K, Gaylord B, Sanford E, Walker B, Palmer H, Fish CR, Saley A (2021) *Science policy collaborations to optimize ocean monitoring networks for the management of ecologically and economically important species*. AGU Fall Meeting. New Orleans, US. Poster. \* Mentored undergraduate student
16. **Ricart AM**, Ward M, Hill TM, Sanford E, Kroeker K, Takeshita Y, Merolla S, Shukla P, Ninokawa A, Elsmore K, Gaylord B (2021) *Coast-wide evidence of low pH amelioration by seagrass ecosystems*. Ocean Visions. Virtual event. Talk.
17. **Ricart AM**, Ward M, Hill TM, Sanford E, Kroeker K, Takeshita Y, Merolla S, Shukla P, Ninokawa A, Elsmore K, Gaylord B (2021) *Coast-wide evidence of low pH amelioration by seagrass ecosystems* California Estuarine Research Society (CAERS) and Pacific Estuarine Research Society (PERS). Virtual event. Talk.
18. Merolla SA, Isaak A, **Ricart AM**, Sanford E, Gaylord B, Hill T (2020) Seagrasses as potential ocean acidification refugia for oysters*.* 101th Western Society of Naturalists. Virtual event. Talk.
19. **Ricart AM**, Ward M, Hill TM, Sanford E, Kroeker K, Takeshita Y, Merolla S, Shukla P, Ninokawa A, Elsmore K, Gaylord B (2020) *Coast-wide evidence of low pH amelioration by seagrass ecosystems*. 101th Western Society of Naturalists. Virtual event. Talk.
20. **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.
21. Hill TM, **Ricart AM**, Kroeker K, Spalding A, Gaylord B, Sanford E, Kauzer J, Carter H, Whiteman E, Palmer HM, Ward M, Kennedy E, Close S, Knight E (2020) *Changing ocean chemistry on the US West Coast: From knowledge to action*. Ocean Sciences Meeting 2020, San Diego, California, US. Talk.
22. Ward M, Hill TM, **Ricart AM**, Gaylord B, O’ Donnell BC, Capece LR, Shukla P, Kroeker K, Sanford E, Oechel WC (2020) Assessing multiple carbon fluxes in a temperate, Pacific seagrass meadow. Ocean Sciences Meeting 2020, San Diego, California, US. Talk.
23. **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. Talk \*Awarded Best Oral Presentation
24. Hill T, Kroeker K, Spalding A, Whiteman E, Sanford E, Gaylord B, **Ricart AM**, Close S, Knight E, Kauzer E (2019) *Impacts of changing ocean chemistry on the West Coast: From research to action*. AGU Fall Meeting. San Francisco, US. Poster
25. Merolla SA, Outcalt A\*, **Ricart AM**, Sanford E, Gaylord B, Hill T (2019) *Effects of seagrass on oyster calcification in ambient and ocean acidification conditions.* 100th Western Society of Naturalists, Ensenada, Mexico. Poster. \* Mentored undergraduate student
26. Williams V, Spalding A, Hill T, Kroeker K, Whiteman L, Sanford R, Gaylord B, **Ricart AM**, Kauzer J (2019) A*n analysis of oceanographic, social, and ecological vulnerabilities associated with ocean acidification on the West Coast.* State of the coast conference. Gleneden Beach, Oregon, US. Poster.
27. Ward MA, Hill T, **Ricart AM**, Gaylord B, O’Donnell BC, Shukla P, Kroeker K, Oechel WC (2018). *A Synthesis of Seagrass Carbon Services: Implications for Restoration and Climate Change Management.* 9th National Summit on Coastal and Estuarine Restoration and Management. Long Beach, California, US. Poster.
28. **Ricart AM**, Sanford E, Gaylord B, Hill T (2018) *Assessing the effects of seagrasses in oyster growth through changes in carbonate water chemistry.* Tomales Bay Research Symposium, Bodega Bay, California, US. Talk.
29. **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. Talk.
30. Ward M, **Ricart AM**, Sanford E, Gaylord B, Kroeker K, Hill T (2018) *Ocean acidification buffering in a temperate, pacific seagrass bed*. 99th Western Society of Naturalists, Tacoma, Washington, US. Talk.
31. **Ricart AM**, Sanford E, Gaylord B, Hill T (2018) *Assessing the role of seagrass ecosystems in carbonate water chemistry from biogeochemical to ecological interactions.* Coastal and Marine Science Institute Graduate Student and Postdoc Research Symposium, University of California Davis, California, US. Talk.
32. Capece L, Hill TM, **Ricart AM**, Ward M, ShuklaP, GaylordB (2018)*Insights from stable isotopes and C/N ratios: Assessing the spatial and temporal variation of sedimentary organic matter stored in seagrass meadows.* American Geophysical Union, AGU Fall Meeting. Washington DC, US. Poster.
33. Smith T, **Ricart AM**, Arthur, R, Boada J, Ontoria Y, Pérez M, Romero J, Rossi F, Sanmartí N, Alcoverro T (2018) *Seagrass species traits mediate patterns of resistance against herbivory intensity and duration.* Estuarine & Coastal Sciences Association, ECSA, 57th meeting, Perth, Australia. Talk.
34. **Ricart AM**, Pérez M, Romero J (2016) *Landscape configuration modulates seagrass carbon storage capacity.* 12th International Seagrass Biology Workshop, Wales, UK. Talk.
35. Sanmartí N, Ontoria Y, Ros L\*, **Ricart AM**, Pérez M, Romero J (2016) *Recovery of Cymodocea nodosa from small-scale disturbances in a Mediterranean coastal bay*. 12th International Seagrass Biology Workshop, Wales, UK. Talk. \* Mentored graduate student
36. Baud M\*, **Ricart AM**, Sanmartí N, Macpherson E, Pérez M, Romero J (2016) *Decapods in seagrass ecosystems: Does landscape matters?* 12th International Seagrass Biology Workshop, Wales, UK. Poster. \* Mentored graduate student
37. **Ricart AM**, Sanmartí N, Pérez M, Romero J (2016) *Influence of landscape patterns on coastal fish assemblages*. 11th International Temperate Reefs Symposium, Pisa, Italy. Talk.
38. Ros L\*, **Ricart AM**, Sanmartí N, Romero J, Pérez M (2015) *B*[*lue carbon capacity of the Mediterranean seagrass Cymodocea nodosa modulated by trophic status and habitat structure*](https://www.researchgate.net/publication/282323209_BLUE_CARBON_CAPACITY_OF_THE_MEDITERRANEAN_SEAGRASS_Cymodocea_nodosa_MODULATED_BY_TROPHIC_STATUS_AND_HABITAT_STRUCTURE?ev=prf_pub). ECSA 55, 55th Conference of Estuarine Coastal Sciences Association, United Kingdom, London. Poster. \* Mentored undergraduate student
39. Sanmartí N, **Ricart AM**, Pérez M, Romero J (2015) *The configuration of the marine landscape influences herbivory on Cymodocea nodosa in a Mediterranean coastal bay.* 4th Mediterranean Seagrass Workshop, Sardinia, Italy. Talk.
40. **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, Granada, Spain. Talk.
41. Macreadie P, York, P, Rasheed M, Bryant C, **Ricart AM**, Nielsen D, Fontes M, Atwood, T, Seymour J, Petrou, K, Kelleway, J, Thomson A, Trevathan-Tackett S, Connolly R, Ralph P (2015) *Hot spots and hot moments in seagrass 'blue carbon' science.* 52nd Australian Marine Science Association (AMSA) Annual Conference, Geelong, Australia. Talk.
42. **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. Talk. \* Mentored graduate student
43. Sanmartí N, Lucas A, Ontoria Y, Sans A, **Ricart AM**, Romero J, Pérez M (2014) *Positive interactions between fan mussel and sea urchins in seagrass meadows: can they increase herbivores pressure?* 11th International Seagrass Biology Workshop, Sanya, China. Talk.
44. **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. Talk. \* Mentored graduate student
45. **Ricart AM**, Linares C, Ballesteros E, Romero J, García M, Weitzmann B, Zabala M, Ros JD, Hereu B (2012) *Long-term variation on benthic communities at Medes Islands Marine Reserve*. XVII Simposio Ibérico de Estudios de Biología Marina SIEBM, Donosti, Spain. Poster.
46. **Ricart AM**, Pérez M, Romero J (2012) *Detritus stocks influenced by seascape attributes*. 3rd Mediterranean Seagrass Workshop, Essaouira, Morocco. Poster.
47. **Ricart AM**, Cupul-Magaña, Gonzalez-Salas, Rodriguez-Zaragoza, Adjeroud M (2009) *Spatial variation of fish assemblages of Clipperton Atoll*. V Congreso Mexicano de Arrecifes de Coral, Tuxpan, Mexico. Talk.

Immersive international research experience: (short research stays realized while holding funded positions in a different institution, commonly known as *Global mobility experience* and highly valued in European research institutions)

* 2018. 2-months Postdoc research stay at the **University of California, Santa Cruz** with Dr. Kristy Kroeker, California, United States. Objectives: perform seagrass and ocean acidification experiments.
* 2014. 3-months Ph.D. research stay at the **Edith Cowan University** with Dr. Paul Lavery and Dr. Oscar Serrano. Perth, Australia. Objectives: blue carbon sediment sampling and processing, data analyses, manuscripts preparation.
* 2014. 1-month Ph.D. research stay at the **University of Algarve** with Dr. Rui Santos. Faro, Portugal. Objectives: seascape ecology field experiment, blue carbon sediment sampling, and processing, data analyses, manuscripts preparation.
* 2013. 5-months Ph.D. research stay at the **University of Technology Sydney** with Dr. Peter Macreadie. Sydney, Australia. Objectives: blue carbon sediment sampling and processing, data analyses, manuscripts preparation.
* 2009. 6-months undergrad research stay at the **University of Guadalajara** with Dr. Fabián Rodríguez Zaragoza. Mexico. Objectives: coral reefs, marine invertebrates, and fishes field sampling.

Teaching experience

* 2019. **Guest Lecturer:** GEL/ESP 150C - Biological Oceanography. University of California, Davis, United States.
* 2013-2015. **Teaching assistant**. Courses: Scientific Diving Techniques and Marine Ecology Universitat de Barcelona, Barcelona, Spain. Degree in Biology.
* 2013-2015. **Teaching assistant**. Courses: Scientific Diving Techniques and Marine Ecology Universitat de Barcelona, Barcelona, Spain. Degree in Environmental Sciences.
* 2010. **Course instructor**: Biology of marine turtles. Workshop for high-school students, Cavanilles Biodiversity Institute, University of Valencia, Valencia, Spain.

Mentorship experience

* 2023-2024. **Supervisor** of 1 graduate student during Master thesis*.* Universitat de Barcelona, Spain.
* 2023-2024. **Supervisor** of 1 graduate student during JAE INTRO research internship program*.* Consejo Superios de Investigaciones Científicas (CSIC), Spain.
* 2022-2023. **Supervisor** of 1 graduate student during Master thesis*.* Universitat de Barcelona, Spain.
* 2022-2023. **Supervisor** of 2 graduate student during Master thesis*.* University of Groningen, The Netherlands.
* 2022-2023. **Mentor** on the Pier2Peer scientific mentorship program from The Global Ocean Acidification Observing Network (GOA-ON). Graduate mentee: Arora Parth, University of Delhi, New Delhi & Pondicherry University, India.
* 2018-2019. **Mentor** in the Santa Rosa Junior College – Bodega Marine Laboratory Internship Program, University of California, Davis, United States.
* 2015-2016. **Co-supervisor** of a graduate student during Master thesis. Universitat de Barcelona, Spain.
* 2014-2015. **Co-supervisor** of 2 graduate student during Master thesis*.* Universitat de Barcelona, Spain.
* 2014-2015. **Co-supervisor** of an undergraduate student in *final* degree project. Universitat de Barcelona, Spain.
* Graduate mentees: Pol Hernández Gatell (Universitat de Barcelona), India Findji (University of Groningen), Angélique Meyer (University of Groningen), Sinéad Cahill (Universitat de Barcelona), Julieta Gomez (Sonoma State University), Rachel Karm (Sonoma State University), Andreu Dalmau (Universitat de Barcelona), Marine Baud (Universitat de Barcelona), Laura Ros (Universitat de Barcelona).
* Undergraduate interns and mentees: Martina Arasa (Universitat Autónoma de Barcelona), Samantha Krausse (University of California, Davis), Amanda Outcalt (University of California, Davis), Tessa Filipczyk (University of California, Davis), Siena Watson (University of California, Davis), Camille Frias (University of California, Davis), Olivia Zanzonico (University of California, Davis), Jolie Lobrutto (University of California, Davis), Benjamin Weaver (University of California, Santa Cruz), Sam Prado (University of California, Santa Cruz), Norma González Buenrostro (Santa Rosa Junior College), Dafne Bradley (Santa Rosa Junior College), Laura Ros (Universitat de Barcelona).

Pedagogical and EDI training

* 2023.Assertivitat i Comunicació Efectiva. Institut de Ciències del Mar (ICM-CSIC), 9th and 10th May 2023.
* 2021. Unlearning Racism in Geoscience (URGE) Pod at Bigelow Laboratory for Ocean Sciences, January to May 2021, virtual events.
* 2020-2021. Antiracism Discussion Group at Bigelow Laboratory for Ocean Sciences. Weekly meetings.
* 2021. Bystander training workshop organized by Alteristic. 14th December 2021. Bigelow Laboratory for Ocean Sciences.
* 2020. Workshop on Disability and Ableism organized by Detroit Disability Power. 1st December 2020. Bigelow Laboratory for Ocean Sciences.
* 2020. Mastering Impostor Syndrome Workshop. 11th December 2021. Graduate Diversity, University of California, Davis.
* 2020. Creating an Inclusive Classroom, 3rd September 2020, Coastal Marine Science Institute, University of California, Davis.
* 2020. Restoring Justice: Transforming Education Centers / DEI: the “5 Pedagogical Stances: Histories, Race, Justice, Language, Futures, 26th August 2020, Office of Diversity, Equity and Inclusion, University of California, Davis.
* 2019. Creating Inclusive Classrooms: Diversity and Access in Education. 4th November 2019, Center for Educational Effectiveness - Office of Undergraduate Education, University of California, Davis.
* 2019. Keep Them Engaged! Active Learning for Student Success, 14th October 2019, Center for Educational Effectiveness - Office of Undergraduate Education, University of California, Davis.
* 2019. The Goal is the Guide: Effective Lesson Planning, 7th October 2019, Center for Educational Effectiveness - Office of Undergraduate Education, University of California, Davis.
* 2019. Engaging Diverse Audiences in Marine and Coastal Protection. 17th October 2019, Open Channels & Octo Open Communications for the Ocean.
* 2014 Novel techniques and methodology for the study of biodiversity. 3rd July 2014. Institute of Biodiversity Research, Universitat de Barcelona, Spain.
* 2013. Approach and dissemination of results of a research project. Plan of training for young researchers, 18th - 21st March 2013, Universitat de Barcelona, Spain.

Institutional and professional service

* 2024. Co-Convener and Session Chair “*Ocean acidification research in seagrass ecosystems: From impacts to solutions*” at the 2024 World Seagrass Conference & 15th International Seagrass Biology Workshop, Napoli, Italy.
* 2023. Co-Convener and Session Chair “Environmental Benefits and Risks of the Current and Future Seaweed Aquaculture Industry” at the Association for the Sciences of Limnology and Oceanography (ASLO) Aquatic Sciences Meeting 2023, Palma de Mallorca, Spain.
* 2022. Lead Convener and Session Chair “Carbon ecosystem services: The role of seagrasses in carbon cycling and climate change mitigation and adaptation” at the 2022 World Seagrass Conference & 14th International Seagrass Biology Workshop, Annapolis, Maryland, US.
* 2021-2022. Master thesis committee evaluation member at the Sonoma State University, California, US.
* 2020 – 2022. Research Associate at Colby College, Maine, United States.
* 2020. Doctoral thesis committee evaluation member at the Universitat de Barcelona, Spain.
* 2018 – 2020. Seminar Committee member of the seminar series at the Bodega Marine Laboratory, University of California, Davis, United States.
* 2016. Doctoral thesis committee evaluation member at the University of Girona, Spain.
* 2013-2014. Funder and Co-coordinator of the 3 Minutes Talk Event, Universitat de Barcelona, Spain.
* 2012-2016. Co-coordinator of seminar series at the Benthic Ecology and Biology Research Group. Department of Ecology, Universitat de Barcelona, Spain.
* 2011-2016. Graduate Students Representative at the Universitat de Barcelona, Spain.

Experience in partnership projects with companies:I have participated in 4 research projects in collaboration with the aquaculture industry. One of the projects involved the company Hog Island Co (California, US) to investigate the benefits of seagrasses for the growth of oysters in future scenarios of climate change. The other three projects involved seaweed farm companies to understand their carbon sequestration potential and their capacity to serve as tools to mitigate and adapt to climate change effects in coastal areas. Among them, one of the projects was in collaboration with the company Atlantic Sea Farms (Maine, US), the other project involved this farm and two more in Alaska (Seagrove Kelp) and Norway (Seaweed Solutions), and the last project (Oceans 2050) involved 20 farms from 12 countries. In all of these projects the different companies have been an essential part of the research and the collaboration and bidirectional transfer of knowledge have resulted in synergies that benefited the research and the economic activities.

Technological and transfer merits:My research area does not usually contribute to the development of technological tools. However, in my particular case there is an exception. In one of my projects as PI (*Ecosystem services of farmed kelp*) I collaborated with scientists from SCRIPPS (US) to build and to test sensors for oceanographic measurements. My project uses for the first time in an external-to-SCRIPPS research project Self-Calibrating SeapHOx sensors ([Bresnahan et al., 2021 L&O Methods](https://aslopubs.onlinelibrary.wiley.com/doi/full/10.1002/lom3.10410)). This is a new sensor model still in development phase and therefore not available commercially. Our results as a third party are an essential step forward to achieve the completion of this singular scientific equipment. I also have been invited as expert advisor to Scientific or Policy-oriented Workshops to explain my work in order to develop policy; to develop research; and to apply research from my area into current needs (see section below). I also have participated in 5 contracts with public environmental agencies to develop and apply monitoring and management programs in Marine Protected Areas, where each of the contracts had a report with final results and recommendations for the environmental agencies: See details in section “Book Chapters and Technical Reports” above.

Advisory role in Scientific or Policy-oriented Workshop (by invitation only):

1. 2022 – Expert group on seaweed farming and environmental benefits and risks organized by the Scottish Association for Marine Science (SAMS) and the Scottish Blue Carbon Forum to develop a policy brief on the carbon sequestration potential of seaweed aquaculture for the Scotland government. 2 days workshop (virtual attendance). <https://plymsea.ac.uk/id/eprint/10001/>
2. 2021-2022 – Expert group on Sinking Marine Biomass organized by Ocean Visions and MBARI to discuss Seaweed Sinking as a potential Ocean-CDR with the main goal to design a research framework to identify and fulfill the knowledge gaps of this novel concept. Final report available at <https://oceanvisions.org/sinkingseaweedresearchframework/>. 1 year of monthly virtual workshops (2000$ honorarium).
3. 2021 – Expert group on Carbon Sequestration in Seaweed Farms organized by Oceans 2050 and the International Atomic Energy Agency (IAEA) to synthesize data from an international network of seaweed farms. 5 days workshop, Monaco (1500$ honorarium).
4. 2021 – Coastal wetlands carbon expert group organized by the California Ocean Science Trust (OST) for California Air Resources Board (CARB) Natural and Working Lands (NWL) Inventory and Climate Change Scoping Plan staff to incorporate coastal wetlands into the California Greenhouse Gas Inventory. 1 day workshop (virtual attendance).
5. 2021 – Expert group in seagrass ecology organized by the Great Barrier Reef Marine Park Authority (Australian Government) & the Great Barrier Reef Blueprint for Resilience to improve the capacity of seagrass meadows to resist and recover from disturbances such as climate change. 2 days workshop (virtual attendance).

Reviewer of Scientific proposals and Reports (by invitation only): Seagrant Oregon & Seagrant Washington (US), NOAA Ocean Acidification Program (US), Icelandic Research Fund (Iceland), Great Barrier Reef Marine Park Authority (Australia), United Nations Environmental Program (UNEP).

Reviewer in scientific journals: Marine Ecology Progress Series ♦ Science of the Total Environment ♦ Global Change Biology ♦ Scientific Reports ♦ Marine Pollution Bulletin ♦ Journal of Geophysical Research ♦ Estuarine Coastal and Shelf Science ♦ Landscape Ecology ♦ Biogeosciences ♦ Estuaries & Coasts ♦ Environmental Science and Technology ♦ Communications Earth & Environment ♦ Limnology & Oceanography

Memberships & Affiliations: SIBECOL (since 2023) ♦ Association for the Sciences of Limnology and Oceanography (since 2014) ♦ World Seagrass Association (since 2014) ♦ Western Society of Naturalists (since 2017) ♦ SACNAS (since 2020) ♦ Coastal Marine Sciences Institute - University of California, Davis (since 2017) ♦ Bodega Marine Science Association (since 2017)

Participation as research team member in international networks: I am a member of two international networks of my research area of expertise: World Seagrass Association (<https://wsa.seagrassonline.org/>), Kelp Forest Alliance (<https://kelpforestalliance.com/>).

STEM based outreach: I have participated in scientific outreach activities for several audiences (from primary school to adults). Some of this outreach activities are by invitation only (\*) while others are the result of my own initiative and interest to disseminate my research results to the general public

* 2023. Skype a Scientist <https://www.skypeascientist.com/> with the International School of Toulouse, France.
* \*2021. NOAA - National Marine Sanctuaries Webinar Series – *Seagrass Meadows: Unsung Heroes in Combating Climate Change?* <https://sanctuaries.noaa.gov/education/teachers/seagrass-meadows.html>.
* \*2021. Podcast in MarineBio.Life – So you want to be a marine biologist? *#63 Corals, Seagrasses and Combating Climate Change.* This is top global podcast in marine biology (for instance it features Sylvia Earle among other influential scientists) <https://marinebio.life/aurora-ricart-phd-corals-seagrasses-and-combating-climate-change/>
* \*2021. Ask the Scientist. Q&A activity for 5th-12th grade students, undergraduates, teachers and parents. Estuary & Ocean Science Center, San Francisco State University, US.
* 2020-present. Contributor to the Environment section of "La Bellota" a local magazine in Manuel, València, Spain.
* 2019. The Secrets of the Seagrass Ecosystem. 2-days practical activity within the classroom for primary school children. Bodega Bay Elementary School, California, United States.
* 2019. Do you See-Grass? Talk at the Science Communication Series “Science Uncorked” targeted to all audiences, Gourmet Au Bay Wine Bar, Bodega Bay, California, United States.
* 2017. Point Reyes National Seashore Research Outreach Event for schools. Annual workshop for primary school children (2 times). Point Reyes Primary School, California, United States.

In the News

* 2023. **National Geographic:** *Could seaweed be the 'fastest and least expensive' tool to fight climate change?* https://www.nationalgeographic.com/environment/article/seaweed-fastest-least-expensive-tool-climate-change
* 2023. **The Verge.** *It’s time to put oceans to the test in the climate fight, scientists say.* [*https://www.theverge.com/2023/9/5/23854171/ocean-climate-change-action-carbon-removal-letter-scientists*](https://www.theverge.com/2023/9/5/23854171/ocean-climate-change-action-carbon-removal-letter-scientists)
* 2023. **The Hill.** *We’re past the point of no return on climate emissions — it’s time we turn to carbon removal* <https://thehill.com/opinion/energy-environment/4213981-were-past-the-point-of-no-return-on-climate-emissions-its-time-we-turn-to-carbon-removal/?mc_cid=72b0f8879b&mc_eid=be95f6ac89>
* 2023. **Newsletter ICM-CSIC**. *In Depth interview*. <https://www.icm.csic.es/en/news/aurora-m-ricart-losing-marine-forests-would-lead-great-loss-biodiversity-decrease-water>
* 2022. **The Scientist:***“Seagrasses Continue to Emit Methane Decades After Death”*. <https://www.the-scientist.com/news-opinion/seagrasses-continue-to-emit-methane-decades-after-death-69722>
* 2021. Editors’ Choice in **Science**: *“Seagrass offsets acidification”* <https://science.sciencemag.org/content/372/6545/twil>
* 2021. Radio program – **Yale Climate Connections**: *“Seagrass can help reduce ocean acidification at local scales”* [*https://yaleclimateconnections.org/2021/07/seagrass-can-help-reduce-ocean-acidification-at-local-scales/*](https://yaleclimateconnections.org/2021/07/seagrass-can-help-reduce-ocean-acidification-at-local-scales/)
* 2021. **Scientific American**: *“Seagrass Forests Counteract Ocean Acidification”* <https://www.scientificamerican.com/article/seagrass-forests-counteract-ocean-acidification/>
* 2021. **Forbes**: *“Scientists Find Underwater Plants Can Combat Ocean Acidification”* <https://www.forbes.com/sites/allenelizabeth/2021/04/12/scientists-find-underwater-plants-can-combat-ocean-acidification/>
* 2021. **San Francisco Chronicle**: *“Underwater meadows of California seagrass found to reverse symptom of climate change”* <https://www.sfchronicle.com/local/environment/article/Underwater-meadows-of-California-seagrass-found-16065560.php>
* 2021. **Reuters**: *“Shrinking sea meadows store more carbon than forests. Scientists are racing to track what’s left”* <https://www.reuters.com/article/us-climate-change-seagrass/shrinking-sea-meadows-store-more-carbon-than-forests-scientists-are-racing-to-track-whats-left-idUSKBN2BV0MV>
* 2021. **The Independent**: *“Scientists race to track shrinking carbon-store sea meadows”* <https://www.independent.co.uk/climate-change/news/carbon-store-sea-meadows-scientists-b1828338.html>
* 2021. **RTP Noticias**: *“Pradarias marinhas podem reverter acidificação da água do mar”* <https://www.rtp.pt/noticias/mundo/pradarias-marinhas-podem-reverter-acidificacao-da-agua-do-mar_n1308895>
* 2021. **Público**: *“Pradarias marinhas podem reverter acidificação da água do mar”* <https://www.rtp.pt/noticias/mundo/pradarias-marinhas-podem-reverter-acidificacao-da-agua-do-mar_n1308895>
* 2021. **E&E News**: *“Underwater meadows could help reverse acidification”* <https://www.eenews.net/climatewire/2021/04/05/stories/1063729149>
* 2021. **NBC News**: *“Shrinking sea meadows add to carbon emission concerns”* <https://www.nbcnews.com/science/environment/shrinking-sea-meadows-add-carbon-emission-concerns-rcna621>
* 2021. **Der Spiegel**: *“Seegras, die Hoffnung für den Klimaschutz”* <https://www.spiegel.de/wissenschaft/natur/seegras-der-co2-speicher-und-die-hoffnung-fuer-den-klimaschutz-a-fdfa4f62-b322-4f0d-a5af-a52b4c150154>
* 2021. **The Times of India**: “Shrinking sea meadows store more carbon than forests” <https://timesofindia.indiatimes.com/home/environment/shrinking-sea-meadows-store-more-carbon-than-forests/articleshow/81967290.cms>
* 2021. **Bangor Daily News**: *"****Maine lab to research kelp farming to combat climate change****"* <https://bangordailynews.com/2021/02/03/news/midcoast/maine-lab-to-research-kelp-farming-to-combat-climate-change/>
* 2021. The **Ocean Acidification Report**: *“Bigelow laboratories leads worldwide kelp experiments”* <https://globaloceanhealth.createsend1.com/t/ViewEmail/d/0CB6F4A6B94929CE2540EF23F30FEDED#KELP>
* 2021. **Press Herald**: *"****Bigelow Laboratory to research whether kelp farming can combat climate change****"*<https://www.pressherald.com/2021/02/03/bigelow-laboratory-to-research-whether-kelp-farming-can-combat-climate-change/>​
* 2021. Multimedia article in the Blog of the Coastal and Marine Science Institute – University of California Davis *“****Kelp: California's Coastal Forests****”* <https://marinescience.ucdavis.edu/blog/kelp-californias-coastal-forests>
* 2020. Multimedia article in the News of the Coastal and Marine Science Institute – University of California Davis *“****Kelp is on the way****”* <https://marinescience.ucdavis.edu/news/kelp-way>
* 2020. Multimedia article in the Science and Climate Blog - University of California, Davis ***“Kelp is on the way****”* <https://climatechange.ucdavis.edu/what-can-i-do/kelp-is-on-the-way/>
* 2020. Multimedia article in the News of the Coastal and Marine Science Institute – University of California Davis ***“High variability of Blue Carbon storage in seagrass meadows at the estuary scale”*** <https://marinescience.ucdavis.edu/news/high-variability-blue-carbon-storage-seagrass>
* 2020. Multimedia article in Massive Science: ***“Some seagrasses work harder than others to slow climate change****”*<https://massivesci.com/notes/seagrass-carbon-climate-change-mud/>
* 2018. **Los Angeles Times**: ***"Researchers in Newport optimistic that eelgrass can reduce carbon and acidity in seawater"***<https://www.latimes.com/socal/daily-pilot/news/tn-dpt-me-eelgrass-results-20180530-story.html>
* 2018. **Medill Reports Chicago**: ***"Shell stuff: Monitoring the health of California’s shellfish amid climate change"*** <https://news.medill.northwestern.edu/chicago/shell-stuff-fighting-parasites-preventing-ocean-acidification-and-understanding-juvenile-behavior-for-coastal-californias-marine-invertebrates/>

Skills and expertise

* Professional and interpersonal skills:
* Planning and organization of research field trips.
* Scientific Diving (+250 dives).
* Benthic habitat mapping using in situ techniques and remote sensing.
* Design and development of ecological surveys and manipulative experiments in intertidal and subtidal habitats.
* Design and development of laboratory and mesocosms experiments.
* Management, leadership and coordination of collaborative and interdisciplinary projects.
* Enjoy fostering relationships with people both inside and outside academia, public dissemination and mentorship.
* Language skills: ***English***(proficient user, C1 level of the Common European Framework of Reference for Languages). ***French***(basic written and oral level). ***Catalan***and***Spanish*** (native bilingual).
* Proficient user of the following statistical and geospatial software:
* Frequentist and Bayesian statistical analysis in R.
* Mixed effects linear models and mixed effects generalized linear models in R.
* Multivariate analysis in PRIMER and R.
* Structural Equation Modelling in R.
* Systematic Reviews and Meta-analysis.
* Geographic Information Systems in ArcGIS and QGIS and spatial data analysis using R, FRAGSTATS and SEASCAPE.
* Image analysis in Image J and Adobe.
* Team and Project management in Slack and Asana
* Data and code management in GitHub and Google Drive.
* Dive licenses and training: + 250 scientific dives from 0 to 50 m deep. *Open Water Diver* (2005). *Advanced Open Water Diver* (2012). ***Rescue Diver*** (2014). ***Enriched Air Diver*** (2015). *Dry suit certified* (2015). By Professional Association of Diving Instructors (PADI). Training in Scientific Diving Techniques (2011) by the Universitat de Barcelona.
* Ship license:Boat master (until 12 m in length for sail and motorboats). By the Spanish Government.
* Specific training in professional skills:
* ***Machine Learning*** *Applied to Marine Ecology –* course by Felipe Hernandes Coutinho (20h) at the Institut de Ciències del Mar (ICM-CSIC). January 2023.
* ***Building and maintenance of Seaphox Self Calibrating sensors* -** training by Taylor Wirth and Todd Martz (120h) at Scripps Institution of Oceanography. November 2021.
* ***Social and Behavioral Responsible Conduct of****Research* - course (10h). University of California, Davis. January 2020.
* *DAN’s* ***Diving First Aid for Professional Divers*** - course (30 hours). Bodega Marine Laboratory, University of California Davis, US. June 2019.
* ***Story Circles Scientific Narrative Training*** *-* course by Randy Olson (scientist and filmmaker) (25 hours) Bodega Marine Laboratory, University of California Davis, US. April 2019.
* ***Structural Equation Modeling*** *for Ecology & Evolutionary Biology* – course by Jarret Byrnes (University of Massachusetts Boston) (40 hours) Bodega Marine Laboratory, University of California Davis, US. March 2018.
* *Introduction to* ***Network Analysis***– course by Daniel Stouffer (University of Canterbury, New Zealand) (25 hours) Centre d’Estudis Avançats de Blanes, Spanish National Research Council (CEAB-CSIC), Spain. May 2017.
* *Introduction to* ***Meta-analysis*** - course by Veronica Ferreira (University of Coimbra, Portugal) (25 hours) Universitat de Barcelona, Spain. September 2015.
* *Introduction to* ***Spatial Data Analysis in R***- course by Virgilio Gómez (University of Castilla la Mancha, Spain) (16 hours). Universitat de Barcelona, Spain. February 2015.
* *Emergency First Response* - course (40 hours). EFR Europe, Middle East and Africa (EMEA). Bilbao, Spain. April 2014.
* ***Linear mixed-effects models*** *and generalized linear mixed-effects models in R* - course by Josep Anton Sánchez (Universitat Politècnica de Catalunya, Spain) (15 hours). Universitat de Barcelona, Spain. January 2014.
* Methodological Techniques for Biological Research (8 hours), 3rd July 2014, Institute of Biodiversity Research, Barcelona, Spain.
* ***Applied statistics in R***- course (25 hours). Universitat de Barcelona. July 2013.
* *Learning* ***ArcGIS*** *Desktop* - course (24 hours). ESRI. Barcelona. March 2013.
* *Training School* ***Effects of increased CO2 /OA*** *on seagrass meadows* - course (140 hours). European Cooperation in Science and Technology. Vulcano, Italy. May 2013.
* ***Scientific Writing*** *Course for Young Researchers* - course by Vincent H Resh (University of California, Berkeley) (12 hours). Universitat de Barcelona, Spain. April 2012.
* ***Multivariate Analyses*** *with R and PERMANOVA* - course (25 hours). Universitat de Barcelona, Spain. November 2010.
* Habitat fragmentation workshop: local adaptation and extinction debt, 24th November 2011, Institute of Catalan Studies, Barcelona, Spain.
* ***Management and conservation*** *of wild-life endangered fauna* - course (40 hours). The Complutense University of Madrid. October 2008.

1. Translation to English done for the purposes of this document. [↑](#footnote-ref-1)
2. Note that the symbol € refers to Euros, the currency in the European Union. [↑](#footnote-ref-2)
3. Translation to English done for the purposes of this document. [↑](#footnote-ref-3)