

ALLEGATO B

UNIVERSITÀ DEGLI STUDI DI MILANO

selezione pubblica per n. 1 posto/i di Ricercatore a tempo determinato ai sensi dell'art.24, comma 3, lettera b) della Legge 240/2010 per il settore concorsuale 05/C1 - ECOLOGIA, settore scientifico-disciplinare BIO/07 - ECOLOGIA presso il Dipartimento di Bioscienze, (avviso bando pubblicato sulla G.U. n. 59 del 26/07/2022) Codice concorso 5048

Miriam Ruocco CURRICULUM VITAE

(N.B. IL CURRICULUM NON DEVE ECCEDERE LE 30 PAGINE E DEVE CONTENERE GLI ELEMENTI CHE IL CANDIDATO RITIENE UTILI AI FINI DELLA VALUTAZIONE.

LE VOCI INSERITE NEL FACSIMILE SONO A TITOLO PURAMENTE ESEMPLIFICATIVO E POSSONO ESSERE SOSTITUITE, MODIFICATE O INTEGRATE)

INFORMAZIONI PERSONALI (NON INSERIRE INDIRIZZO PRIVATO E TELEFONO FISSO O CELLULARE)

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| COGNOME | RUOCCO |
| NOME | MIRIAM |
| DATA DI NASCITA | 23, Settembre, 1986 |

TITOLI

TITOLO DI STUDIO

(indicare la Laurea conseguita inserendo titolo, Ateneo, data di conseguimento, ecc.)

- Laurea magistrale in Biologia (LM-6) curriculum Bio-molecolare, Università degli Studi di Napoli "Federico II", 13/12/2012, 110/110 e lode;
- Laurea triennale in Biologia Generale ed Applicata curriculum Biologia Molecolare e Cellulare, Università degli Studi di Napoli "Federico II", 29/05/2009, 108/110.

TITOLO DI DOTTORE DI RICERCA O EQUIVALENTI, OVVERO, PER I SETTORI INTERESSATI, DEL DIPLOMA DI SPECIALIZZAZIONE MEDICA O EQUIVALENTE, CONSEGUITO IN ITALIA O ALL'ESTERO

(inserire titolo, ente, data di conseguimento, ecc.)

School of Life, Health and Chemical Sciences, The Open University UK, XVII cycle, 05/02/2019.

Director of study: Dr. Gabriele Procaccini, Stazione Zoologica Anton Dohrn (Naples, Italy); External supervisor: Prof. Fabio Bulleri, University of Pisa (Pisa, Italy).

PhD thesis title: "Unravelling the complexity of the molecular and physiological response to environmental change in seagrasses"

Main activities: I studied the response of the seagrass *Posidonia oceanica* to single and multiple stressors (i.e. chronic low light, heat stress, herbivory and nutrient enrichment) at different scales of biological organization (e.g. within/among plant tissues/organs and between different shoot types) through field and mesocosm-based experiments. A combination of gene expression ("target" and

"omics" approaches), epigenetic (DNA methylation), photo-physiological, biochemical and morphological analyses, were applied. Main results included: 1) the identification of the most informative plant tissues/organs to be used as proxies of seagrass stress status; 2) the recognition of the importance of epigenetic variations, as key mechanisms for phenotypic accommodation and adaptive responses to environmental changes in seagrasses; 3) the recognition of the importance of the temporal variability of stressors in determining plant stress response.

CONTRATTI DI RICERCA, ASSEGNI DI RICERCA O EQUIVALENTI

(per ciascun contratto stipulato, inserire università/ente, data di inizio e fine, ecc.)

- 1. Borsa per attività di ricerca Post-dottorato:** Stazione Zoologica Anton Dohrn, 1/12/2018 - 31/7/2019. *Main activities:* 1) Analysis of RNA-Seq data from *Posidonia oceanica* exposed to chronic low light; 2) Extraction of carbohydrates from different organs of *P. oceanica* and subsequent data analysis; 3) Analysis of global DNA methylation levels in *P. oceanica* exposed to chronic low light and data analysis.
- 2. Assegno di ricerca:** Stazione Zoologica Anton Dohrn, 16/02/2020 - 16/02/2021. *Main activities:* 1) Bioinformatic analysis of 2b-RAD genotyping data of seagrass species collected along latitudinal gradients; 2) Investigation of transcriptomic and epi-transcriptomic mechanisms (i.e. RNA methylation) involved in the regulation of seagrass biological rhythms.
- 3. Assegno di ricerca:** Stazione Zoologica Anton Dohrn, 1/03/2021 - 1/03/2023. *Main activities:* 1) development and validation of early-warning molecular indicators for seagrass stress monitoring; 2) population genetics and epi-genetic analysis of the seagrass *Posidonia oceanica* in the Mediterranean Sea; 3) integration of GIS mapping with genetic information for seagrass monitoring and restoration purposes. All activities are carried out in the framework of the project "MARINE HAZARD - Sviluppo di tecnologie innovative per l'identificazione, monitoraggio e mitigazione di fenomeni di contaminazione naturale e antropica".

ATTIVITÀ DIDATTICA A LIVELLO UNIVERSITARIO IN ITALIA O ALL'ESTERO

(inserire periodo [gg/mm/aa inizio e fine], anno accademico, ateneo, corso laurea, numero ore, ecc.)

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DOCUMENTATA ATTIVITÀ DI FORMAZIONE O DI RICERCA PRESSO QUALIFICATI ISTITUTI ITALIANI O STRANIERI;

(inserire anno accademico, ente, corso, periodo, ecc.)

Research activity:

- 1. Borsa per attività di ricerca Pre-dottorato:** Centre of Marine Sciences (CCMAR) - University of Algarve, Faro (Portugal), 09/2013 - 04/2015. Project: HighGrass - "High-CO₂ effects on seagrass photosynthetic ecophysiology" (PTDC/MAR-EST/3687/2012) funded by the Portuguese Foundation for Science and Technology (FCT). *Main activities:* I studied the effects of CO₂-driven ocean acidification on gene expression patterns (via RT-qPCR and RNA-Seq) and genetic diversity in two seagrass species: *Cymodocea nodosa* and *Posidonia oceanica*. The project included both field experiments (at CO₂ vent sites in the Mediterranean Sea) and controlled mesocosm studies, and the combination of eco-physiological and eco-genomics techniques. Main results included the first description of major changes in seagrass metabolism under high-CO₂/low pH conditions in terms of gene expression patterns and adaptive genetic variations along ocean acidification gradients.
- 2. Visiting Scientist:** Centre of Marine Sciences (CCMAR) - University of Algarve, Faro (Portugal) - ASSEMBLE Plus Transnational Access (TA) program 3rd call, 04/05/2019 - 11/05/2019. Project: CircaGrass - "Adaptation of the seagrass circadian clock to latitudes" (347.1). *Main activities:* 1) Sampling of seagrass and macroalgal specimens (*Zostera marina*, *Cymodocea nodosa* and *Caulerpa prolifera*) at different times of the day for the assessment of daily expression patterns of circadian

clock-related genes; 2) Sampling of the *C. nodosa* population of the Ria Formosa lagoon for 2b-RAD sequencing; 3) Daily measurements of photo-physiological performance of seagrasses and macroalgae through diving-PAM fluorometry.

3. Visiting Scientist: Tjärnö Marine Laboratory - Göteborg University, Tjärnö (Sweden) - ASSEMBLE Plus Transnational Access (TA) program 3rd call, 05/06/2019 - 21/06/2019. Project: CircaGrass - "Adaptation of the seagrass circadian clock to latitudes" (347.2). *Main activities:* 1) Sampling of seagrass and macroalgal specimens (*Zostera marina*; *Fucus vesiculosus*) at different times of the day for the assessment of daily expression patterns of circadian clock-related genes; 2) Library preparation for 2b-RAD genotyping of seagrass specimens (*Cymodocea nodosa*) collected along a latitudinal gradient of distribution for the identification of candidate genes responsible for local adaptation of populations.

4. Visiting Scientist: Tjärnö Marine Laboratory - Göteborg University, Tjärnö (Sweden), 15/05/2022 - 14/06/2022. Project: EPI-DIVERSEA - "The role of EPIgenetic DIVERsity in SEAggrass ecosystems". *Main activities:* Methyl-RAD analysis (library preparation and bioinformatics analysis) of seagrass samples (*P. oceanica*) collected from natural populations along the Sicilian coast.

Courses/Workshops:

1. COST Workshop "Linking ecophysiology and ecogenomics in seagrass systems" - Stazione Zoologica Anton Dohrn - Naples (Italy), 1-2 March 2011
2. School in "Conservation Genetics of Marine Organisms" - Chioggia (Italy), 3-9 Jul 2011
3. COST Training School "Linking seagrass productivity, community metabolism and ecosystem carbon fluxes" - Station de Recherches Sous-Marines et Océanographiques - Stareso, Corsica (France), 10-19 Oct 2011.
4. Meeting "Illumina Next Generation Sequencing Technology - A Revolutionary approach to study microbial genetics" - Stazione Zoologica Anton Dohrn - Naples (Italy), 28 Jun 2012.
5. COST Training School "Effects of increased CO₂/Ocean Acidification on seagrass meadow" - Vulcano (Aeolian Islands, Italy), 6-11 May 2013.
6. Biorad seminar "La nuova frontiera della PCR quantitativa QX200™ droplet digital PCR" - Stazione Zoologica Anton Dohrn - Naples (Italy), 16 Oct 2014.
7. Statistics course: "Statistica - un approccio pratico all'analisi dei dati biologici" - Città della Scienza, Naples (Italy), Jan-Feb 2015 (6 lessons).
8. XX School on "Molecular and Biophysical aspects of Photosynthesis" - Venice (Italy), 25-29 Jan 2016.
9. Statistics course: "Statistica - un approccio pratico all'analisi dei dati biologici - Modulo II (statistica: tecniche per l'analisi dei dati biologici)" - Real Orto Botanico, Naples (Italy), Feb-Mar 2017 (4 lessons).
10. Workshop "Molecular Phylogenetics" - Stazione Zoologica Anton Dohrn - Naples (Italy), 10-12 Apr 2017.
11. Euromarine Workshop: "Trait-based approach to seagrass ecosystems - TRAITGRASS" - Stazione Zoologica Anton Dohrn - Naples (Italy), 3-5 Oct 2018.
12. Data Carpentry Workshop "Introductory course on data management and visualization in R" - Stazione Zoologica Anton Dohrn - Naples (Italy), 6-7 Feb 2019.
13. Summer School "Protein Evolution: from Environmental Adaptations to Biotechnological Applications" - Stazione Zoologica Anton Dohrn - Naples (Italy), 24-26 Jul 2019.
14. Online course by edx: Dartmouth_IMTx: DART.IMT.C.06: "Linux Basics: The Command Line Interface", April-May 2020

DOCUMENTATA ATTIVITÀ IN CAMPO CLINICO

(indicare, data, durata, ruolo, ente presso il quale si è prestata attività assistenziale, ecc.)

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REALIZZAZIONE DI ATTIVITÀ PROGETTUALE

(indicare, data, progetto, ecc.)

Participation to EU/EXTRA-EU projects:

1. Project: HighGrass - "High-CO₂ effects on seagrass photosynthetic ecophysiology" (2013-2015) funded by Portuguese Foundation for Science and Technology (FCT) (Participation as research fellow).
2. Project: SEASStress - "Application of molecular tools for detecting early signals of stress in Israeli and Italian seagrass species" (2019-2020) funded by Italian Ministry of Foreign Affairs and International Cooperation/Israeli Ministry of Science and Technology (Participation as PhD student).
3. Project: CircaGrass - "Adaptation of the seagrass circadian clock to latitudes" (2019) funded by the ASSEMBLE Plus Transnational Access program (Co-applicant of the project).
4. Project: MARINE HAZARD (PON03PE_00203) (2021-2023) - "Sviluppo di tecnologie innovative per l'identificazione, monitoraggio e mitigazione di fenomeni di contaminazione naturale e antropica" (Participation as PostDoc research fellow).
5. Project: EPI-DIVERSEA - "The role of EPIgenetic DIVERsity in SEAggrass ecosystems" (2022) (Applicant of the project).

ORGANIZZAZIONE, DIREZIONE E COORDINAMENTO DI GRUPPI DI RICERCA NAZIONALI E INTERNAZIONALI, O PARTECIPAZIONE AGLI STESSI

(per ciascuna voce inserire anno, ruolo, gruppo di ricerca, ecc.)

TITOLARITÀ DI BREVETTI

(per ciascun brevetto, inserire autori, titolo, tipologia, numero brevetto, ecc.)

ATTIVITÀ DI RELATORE A CONGRESSI E CONVEGNI NAZIONALI E INTERNAZIONALI

(inserire titolo congresso/convegno, data, ecc.)

Conferences:

1. 43th Congress of Italian Society of Marine Biology (S.I.B.M.) - Marina di Camerota (Italy), 4-8 Jun 2012.
2. Final Conference of COST Action ES0906: "Seagrasses in Europe: Threats, Responses and Management" - Olhão (Portugal), 4-6 Mar 2014.
3. 4th Mediterranean Seagrass Workshop (MSW) - Oristano (Italy), 18-22 May 2015.
4. International Seagrass Biology Workshop (ISBW12) - Nant Gwrtheyrn, Wales (UK), 16-21 Oct 2016.
5. 1st EPIgenetics in MARine biology congress (EPIMAR) - online congress, 6-9 Oct 2020
6. 1st Italian Congress on Marine Evolution (EvolMar) - online congress, 23-25 Nov 2020

Oral presentations/Seminars:

1. 4th Mediterranean Seagrass Workshop (18-22 May 2015, Oristano, Italy) - *Cymodocea nodosa* response to simulated CO₂-driven ocean acidification: A first insight from global transcriptome profiling. M. Ruocco, G. Procaccini, F. Musacchia, R. Sanges, I. Olivé, M. M. Costa, I. Barrote, R. Santos, J. Silva.
2. Seminar at the Institute of Evolution and Ecology, Eberhard Karls Universität Tübingen (4 Oct 2019, Tübingen, Germany) - Seagrass plasticity across environmental gradients and multi-level response to climate change impacts. M. Ruocco.

3. 1st Italian Congress on Marine Evolution (EvolMar) (23-25 Nov 2020, online) - m6A RNA methylation in seagrasses: first insights and relevance for biological rhythms. M. Ruocco, L. Ambrosino, M. Jahnke, M.L. Chiusano, I. Barrote, G. Procaccini, J. Silva, E. Dattolo.
4. Invited seminar for the Department of Marine Sciences, Tjärnö Marine Laboratory, University of Gothenburg (22 Apr 2021, online) - Circagrass: Adaptation of the seagrass circadian clock to latitude. M. Ruocco.

Abstract/Poster Co-authoring:

1. 43th Congress of Italian Society of Marine Biology (S.I.B.M.) (4-8 Jun 2012, Marina di Camerota, Italy) - *Posidonia oceanica* photoadaptation to the depth gradient. M. Ruocco, C. Brunet, M. Lorenti, C. Lauritano, D. D'Esposito, M. Riccio, G. Procaccini (poster)
2. XIV Congress of the European Society for Evolutionary Biology (19-24 Aug 2013, Lisbon, Portugal) - Circadian fluctuation of gene expression along a bathymetrical cline in the marine angiosperm *Posidonia oceanica*. E. Dattolo, D. D'Esposito, C. Lauritano, M. Ruocco, G. Procaccini (poster)
3. Final Conference COST Action ES0906: "Seagrasses in Europe: Threats, Responses and Management" (4-6 Mar 2014, Olhão, Portugal) - Daily variation in gene expression along a depth-related gradient of light availability in *Posidonia oceanica*. M. Ruocco, E. Dattolo, C. Lauritano, G. Procaccini (poster)
4. Final Conference COST Action ES0906: "Seagrasses in Europe: Threats, Responses and Management" (4-6 Mar 2014, Olhão, Portugal) - Stress genes in the seagrass *Posidonia oceanica*. C. Lauritano, M. Ruocco, E. Dattolo, M.C. Buia, J. Silva, G. Procaccini (poster)
5. Final Conference COST Action ES0906: "Seagrasses in Europe: Threats, Responses and Management" (4-6 Mar 2014, Olhão, Portugal) - Insights on adaptation and plasticity of *Posidonia oceanica* along a bathymetric gradient. G. Procaccini, E. Dattolo, D. D'Esposito, C. Lauritano, S. Mazzuca, M. Ruocco, R. Sanges (abstract)
6. ASLO Aquatic Sciences Meeting (22-27 Feb 2015, Granada, Spain) - Seagrass photosynthetic responses to a natural high-CO₂ environment: physiology meets gene expression. J. Silva, M. M. Costa, I. Olivé, I. Barrote, M. Ruocco, C. Lauritano, G. Procaccini, R. Santos (abstract)
7. 4th Mediterranean Seagrass Workshop (18-22 May 2015, Oristano, Italy) - *Posidonia oceanica* molecular adaptation to the light environment. G. Procaccini, E. Dattolo, C. Lauritano, M. Ruocco, L. Marín-Guirao (abstract)
8. 4th Mediterranean Seagrass Workshop (18-22 May 2015, Oristano, Italy) - Circadian fluctuation of gene expression along a bathymetric cline in the marine angiosperm *Posidonia oceanica*. E. Dattolo, C. Lauritano, M. Ruocco, G. Procaccini (abstract)
9. International Seagrass Biology Workshop (ISBW12) (16-21 Oct 2016, Nant Gwrtheyrn, Wales) - Effects of ocean acidification on seagrass gene expression: insights from *Posidonia oceanica* at CO₂ vents. M. Ruocco, C. Lauritano, I. Olivé, M. Costa, I. Barrote, R. Santos, J. Silva, G. Procaccini (poster)
10. 50th Congress of Italian Society of Marine Biology (S.I.B.M.) (10-14 Jun 2019, Livorno, Italy) - Molecular response of the shoot-apical meristem to low-light intensity in *Posidonia oceanica*: a new early warning indicator? M. Ruocco, L. Marín-Guirao, L. Entrambasaguas, G. Procaccini (poster).
11. 1st EPIgenetics in MARine biology congress (EPIMAR) (6-9 Oct 2020, online). Gene body and environmentally inducible DNA methylation in seagrasses: inter- and intraspecific differences and associations with transcriptome plasticity under warming conditions. L. Entrambasaguas, M. Ruocco, K. Verhoeven, G. Procaccini, Marín-Guirao, L. (abstract)
12. 1st EPIgenetics in MARine biology congress (EPIMAR) (6-9 Oct 2020, online). Estimation of daily changes of m6A methylation in the two seagrass species *Z. marina* and *C. nodosa* over a 24h period. M. Ruocco, M. Jahnke, J. Silva, I. Barrote, G. Procaccini, E. Dattolo (poster)
13. 1st Italian Congress on Marine Evolution (EvolMar) (23-25 Nov 2020, online). Comparative analysis of gene networks in marine and terrestrial angiosperms. E. Dattolo, L. Ambrosino, M. Ruocco, G. Procaccini, M.L. Chiusano. (poster)
14. 1st Italian Congress on Marine Evolution (EvolMar) (23-25 Nov 2020, online). Transcriptional responses of *Posidonia oceanica* under multiple stresses: the influence of the native environment. J. Pazzaglia, A. Santillan-Sarmiento, M. Ruocco, E. Dattolo, A. Terlizzi, L. Marín-Guirao, G. Procaccini. (poster)
15. 1st Italian Congress on Marine Evolution (EvolMar) (23-25 Nov 2020, online). Gene body and environmentally inducible DNA methylation in seagrasses: inter- and intraspecific differences and associations with transcriptome plasticity under warming conditions. L. Entrambasaguas, M. Ruocco, K.J.F. Verhoeven, G. Procaccini, L. Marín-Guirao. (abstract).

CONSEGUIMENTO DI PREMI E RICONOSCIMENTI NAZIONALI E INTERNAZIONALI PER ATTIVITÀ DI RICERCA
(inserire premio, data, ente organizzatore, ecc.)

Honours and awards:

1. S.I.B.M. Award at the 4th Mediterranean Seagrass Workshop (18-22 May 2015, Oristano, Italy).
2. Prize "100 anni di Ricerca Genomica" (5000 €) awarded by Accademia Nazionale delle Scienze detta dei XL and Stazione Zoologica Anton Dohrn for Italian young researchers (<35 years old) (15 Sep 2021, Rome, Italy) for the publication "Ruocco et al. (2020) A king and vassals' tale: molecular signatures of clonal integration in Posidonia oceanica under chronic light shortage. Journal of Ecology 109(1): 294-312". This prize has been used to develop the project "EPI-DIVERSEA - The role of EPIgenetic DIVERsity in SEAggrass ecosystems".

Grants:

1. Grant by COST (European Cooperation in Science and Technology) to participate in the COST Training School "Linking seagrass productivity, community metabolism and ecosystem carbon fluxes" - 2011.
2. Grant by COST (European Cooperation in Science and Technology) to participate in the COST Training School: "Effects of increased CO₂/Ocean Acidification on seagrass meadow" - 2013.
3. Horizon 2020 Research and Innovation Action - Grant by ASSEMBLE Plus Transnational Access program to perform the project "CircaGrass - Adaptation of the seagrass circadian clock to latitudes" - 2019.

POSSESSO DEL DIPLOMA DI SPECIALIZZAZIONE EUROPEA RICONOSCIUTO DA BOARD INTERNAZIONALI
(relativamente a quei settori concorsuali nei quali è prevista)
(indicare diploma, data di conseguimento, ecc.)

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TITOLI DI CUI ALL'ARTICOLO 24 COMMA 3 LETTERA A) E B) DELLA LEGGE 30 DICEMBRE 2010, N. 240
(indicare se contratto di tipologia A o B, Ateneo, data di decorrenza e fine contratto, ecc.)

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PRODUZIONE SCIENTIFICA

PUBBLICAZIONI SCIENTIFICHE

(per ciascuna pubblicazione indicare: nomi degli autori, titolo completo, casa editrice, data e luogo di pubblicazione, codice ISBN, ISSN, DOI o altro equivalente)

ISI Papers:

1. Mazzuca S., Björk M., Beer S., Felisberto P., Gobert S., Procaccini G., Runcie J., Silva J., Borges A., Brunet C., Buapet P., Costa M. M., D' Esposito D., Gullström M., Lejeune P., Lepoint G., Olivé I., Rasmusson L., Richir J., Ruocco M., Serra I.A., Spadafora A., Santos R. (2013) Establishing research strategies, methodologies, and technologies to link genomics and proteomics to seagrass productivity,

community metabolism and ecosystem carbon fluxes. *Frontiers in Plant Science* 4:38. <https://doi.org/10.3389/fpls.2013.00038>.

2. Dattolo E*, Ruocco M*, Brunet C., Lorenti, M., Lauritano C., D'Esposito D., De Luca P., Sanges R., Mazzuca, S., Procaccini G. (2014) Response of the seagrass *Posidonia oceanica* to different light environments: Insights from a combined molecular and photo-physiological study. *Marine Environmental Research* 101:223-236. *First two authors share equal responsibility. <https://doi.org/10.1016/j.marenvres.2014.07.010>.
3. Lauritano C., Ruocco M., Dattolo E., Buia M.C., Silva J., Santos R., Olivé I., Costa M. M., Procaccini G. (2015) Response of key stress-related genes of the seagrass *Posidonia oceanica* in the vicinity of submarine volcanic vents. *Biogeosciences* 12(13):4185-4194. <https://doi.org/10.5194/bg-12-4185-2015>.
4. Procaccini G., Ruocco M., Brunet C., D'Esposito D., Lauritano C., Marín-Guirao L., Mazzuca S., Piro A., Bernardo L., Serra I.A., Beer S., Bjork M., Gulstrom M., Buapet P., Rasmusson L., Felisberto P., Gobert S., Runcie J., Silva J., Olivé I., Costa M. M., Barrote I., Santos R. (2017) Depth-specific fluctuations of gene expression and protein abundance modulate the photophysiology in the seagrass *Posidonia oceanica*. *Scientific Reports* 7:42890. <https://doi.org/10.1038/srep42890>.
5. Ruocco M., Procaccini G., Musacchia F., Sanges R., Olivé I., Costa M. M., Barrote I., Santos R., Silva J. (2017) Genomewide transcriptional reprogramming in the seagrass *Cymodocea nodosa* under experimental ocean acidification. *Molecular Ecology* 26:4241-4259. <https://doi.org/10.1111/mec.14204>.
6. Olivé I., Silva J., Lauritano C., Costa M.M., Ruocco M., Procaccini G., Santos R. (2017) Linking seagrass gene expression to productivity: long and short-term responses of *Cymodocea nodosa* to CO₂ in volcanic vents. *Scientific Reports* 7:42278. <https://doi.org/10.1038/srep42278>.
7. Ruocco M., Marín-Guirao L., Ravaglioli C., Bulleri F., Procaccini G. (2018) Molecular level responses to chronic versus pulse nutrient loading in the seagrass *Posidonia oceanica* undergoing herbivore pressure. *Oecologia* 188:23. <https://doi.org/10.1007/s00442-018-4172-9>.
8. Traboni C., Mammola S.D., Ruocco M., Ontoria Y., Ruiz J.M., Procaccini G., Marín-Guirao L. (2018) Investigating cellular stress response to heat stress in the seagrass *Posidonia oceanica* in a global change scenario. *Marine Environmental Research* 141:12-23. <https://doi.org/10.1016/j.marenvres.2018.07.007>.
9. Ruocco M., Marín-Guirao L., Procaccini G. (2019) Within- and among-leaf variations in photo-physiological functions, gene expression and DNA methylation patterns in the large-sized seagrass *Posidonia oceanica*. *Marine Biology* 166(3):24. <https://doi.org/10.1007/s00227-019-3482-8>.
10. Ruocco M., De Luca P., Marín-Guirao L., Procaccini G. (2019) Differential leaf age-dependent thermal plasticity in the keystone seagrass *Posidonia oceanica*. *Frontiers in Plant Science* 10:1556. <https://doi.org/10.3389/fpls.2019.01556>.
11. Ruocco M., Entrambasaguas L., Milito A., Marín-Guirao L., Procaccini G. (2020) A king and vassals' tale: molecular signatures of clonal integration in *Posidonia oceanica* under chronic light shortage. *Journal of Ecology* 109(1): 294-312. <https://doi.org/10.1111/1365-2745.13479>.
12. Ruocco M., Ambrosino L., Jahnke M., Chiusano M.L., Barrote I., Procaccini G., Silva J., Dattolo E. (2020) m6A RNA methylation in marine plants: first insights and relevance for biological rhythms. *International Journal of Molecular Science* 21(20):7508. <https://doi.org/10.3390/ijms21207508>.
13. Pazzaglia J., Santillán-Sarmiento A., Helber B. S., Ruocco M., Terlizzi A., Marín-Guirao L., Procaccini G. (2020) Does warming enhance the effects of eutrophication in the seagrass *Posidonia oceanica*? *Frontiers in Marine Science* 7:1067. <https://doi.org/10.3389/fmars.2020.564805>.
14. Pazzaglia J., Nguyen M. H., Santillán S. A., Ruocco M., Dattolo E., Marín-Guirao L., Procaccini G. (2021) The genetic component of seagrass restoration: what we know and the way forwards. *Water* 13(6):829. <https://doi.org/10.3390/w13060829>.
15. Entrambasaguas L., Ruocco M., Verhoeven K., Procaccini G., Marín-Guirao L. (2021) Gene body DNA methylation in seagrasses: inter- and intraspecific differences and interaction with transcriptome plasticity under heat stress. *Scientific Reports* 11(1):1-15. <https://doi.org/10.1038/s41598-021-93606-w>.
16. Ruocco M., Barrote I., Hofman J.D., Pes K., Costa M.M., Procaccini G., Silva J., Dattolo E. (2021) Daily regulation of key metabolic pathways in two seagrasses under natural light conditions. *Frontiers in Ecology and Evolution* 9. <https://doi.org/10.3389/fevo.2021.757187>.
17. Pazzaglia J., Santillán-Sarmiento A., Ruocco M., Dattolo E., Ambrosino L., Marín-Guirao L., Procaccini G. (2022) Local environment modulates whole-transcriptome expression in the seagrass *Posidonia oceanica* under warming and nutrients excess. *Environmental Pollution* 303:119077. <https://doi.org/10.1016/j.envpol.2022.119077>.

18. Ruocco M., Jahnke M., Silva J., Procaccini G., Dattolo E. (2022) 2b-RAD genotyping of the seagrass *Cymodocea nodosa* along a latitudinal cline identified candidate genes for environmental adaptation. *Frontiers in Genetics* DOI: 10.3389/fgene.2022.866758.

Submitted

1. Tutar O*, Ruocco M*, Dattolo E., Lacorata G., Corrado R., Watteaux R., Iudicone D., Fach B., Procaccini G. High levels of genetic diversity and population structure in the Mediterranean seagrass *Posidonia oceanica* at its easternmost distribution limit. *ICES Journal of Marine Science* Under review
**First two authors share equal responsibility*
2. Pazzaglia J., Dattolo E., Ruocco M., Santillán-Sarmiento A., Marin-Guirao L., Procaccini G. Dynamics of DNA methylation in a coastal foundation seagrass species under abiotic stressors. *Proceedings of the Royal Society B* Under review
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1. Ruocco M., Brunet C., Lorenti M., Lauritano C., D'Esposito D., Riccio M., Procaccini G. (2012) *Posidonia oceanica* photoadaptation to the depth gradient. *Biol. Mar. Mediterr.* 19 (1): 63-64.
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Scientometric indexes:

Google Scholar (08/08/2022)

N° of products: 24

H-index: 12

i10 index: 13

Total citations: 421

Scopus (08/08/2022)

N° of products: 18

H-index: 12

Total citations: 314

Data

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