

Edoardo Casoli

RESEARCHER · ENVIRONMENTAL CONSULTANT · MARINE ECOLOGIST

✉ edoardo.casoli@uniroma1.it |  edoardo.casoli

CURRENT POSITION

RESEARCH FELLOW (RTDA)

OCT 2020 – PRESENT

University of Rome “La Sapienza” – Dept. Environmental Biology

Research activity: *Dynamics and human-impacts on bioconstruction and boring organisms of benthic Mediterranean communities.* Teaching: *Structure and functioning of marine ecosystems.*

SKILLS AND QUALIFICATION

EXPERTISE Marine Biology and Ecology, Global change and Biodiversity, Taxonomy, Cartography, Monitoring and assessment of marine coastal environments, WFD and MSFD Monitoring protocols and guidelines, Underwater sampling, Restoration ecology, Underwater photography.

SOFTWARE **GIS software** (ESRI family: ArcGIS 9, ArcView 9, ArcView 3.x), **Statistics** (R and Past), **Image analysis and photo editing** (Adobe Photoshop, Adobe Lightroom, Image J, PhotoQuad, Agisoft Photoscan), **Computer literate** (Word, PowerPoint, Excel, Access).

CERTIFICATIONS **AESD Advanced European Scientific Diver** (AIOSS - Associazione Italiana Operatori Scientifici Subacquei), **Boat license** within 12 miles.

EDUCATION

PHD

OCT 2013 – FEB 2017

University of Rome “La Sapienza” – Dept. Environmental Biology

PhD in Environmental Biology; Dissertation title: *Combining old and new sampling methods in benthic research: from biodiversity to human-mediated impacts on coralligenous reefs.* Supervisor: Prof. Giandomenico Ardzzone.

MASTER'S DEGREE**OCT 2010 – MAY 2013****University of Rome “La Sapienza”**

Master's Degree in Marine Science (110/110 *cum laude*). Dissertation title: *Study of community development on calcareous artificial substrata deployed on Archaeological underwater site of Baia (Naples); settlement and colonization of epibenthic and endobenthic assemblages*. Supervisors: Prof. Giandomenico Ardizzone, Dr. Maria Flavia Gravina, Dr. Sandra Ricci.

BACHELOR'S DEGREE**OCT 2006 – MAY 2010****University of Rome “La Sapienza”**

Bachelor's Degree in Natural Science (110/110 *cum laude*). Dissertation title: *Literature-review of distribution, abundance, feeding and genetics of Sperm whale (Physeter catodon) in Mediterranean Sea*. Supervisor: Prof. Marina Cobolli.

PROFESSIONAL EXPERIENCE

ENVIRONMENTAL CONSULTANT**JAN 2015 – PRESENT****CIBM, V.le N. Sauro, 4 – 57128 Livorno –**

Assessment of environmental impact of Costa Concordia Removal operations – Remediation phase (WP9) – Restoration phase (WP10); Underwater survey and sampling, seabed mapping, and data analysis.

Scientific monitoring of TAP Bioconstruction Relocation project at Otranto (Adriatic Sea); Environmental monitoring and restoration, seabed mapping, data analysis, and impact assessment.

ENVIRONMENTAL CONSULTANT**DEC 2019 – APR 2020****RINA CONSULTING S.P.A, Via Antonio Cecchi, 6 – 16129 Genova –**

Scientific support during TAP Bioconstruction Relocation project at Otranto (Adriatic Sea); Environmental restoration, seabed mapping, data analysis, and impact assessment.

TEACHER**JUN 2022****University of Rome “La Sapienza” – Dept. Environmental Biology**

Teacher at the stage of Marine Biology and Scientific Diving: “Gradienti Ambientali in Habitat Marini Costieri”, Palinuro (Salerno) 5 – 10 June 2022.

TEACHER**JUN 2018****University of Rome “La Sapienza” – Dept. Environmental Biology**

Teacher at the stage of Marine Biology and Scientific Diving: “Le biocostruzioni marine”, Palinuro (Salerno) 4 – 10 June 2018.

POST – DOC RESEARCHER

OCT 2018 – JAN 2020

University of Rome “La Sapienza” – Dept. Environmental Biology

Biology and ecology of coralligenous reefs; Distribution patterns of benthic organisms; Underwater photography as a tool for study marine habitats; Human – mediated impacts on marine benthic communities. Supervisor: Prof. Giandomenico Ardizzone.

ENVIRONMENTAL CONSULTANT

OCT 2013 – NOV 2014

Titan - Micoperi Group

Assessment of environmental impact of Costa Concordia Removal operations; Underwater survey and sampling, seabed mapping, and data analysis.

LANGUAGE SKILLS

(1 to 5 for competence)	Reading	Speaking	Writing
English	C1	C1	C1
Mother tongue Italian			

POSTERS AND PRESENTATIONS

Casoli E., Gravina M.F., Belluscio A., Ardizzone G.D. (2015). Serpulidae polychaetes (Annelida) from coralligenous concretions from Giglio Island (Tuscany). 46° Congresso della Società Italiana di Biologia Marina, Rome 10-12 June 2015. POSTER

Stipchic P., **Casoli E.**, Belluscio A., Ardizzone G.D. (2016). Characterization of coralligenous assemblages dominated by Eunicella cavolini (Koch, 1887) and Paramuricea clavata (Risso, 1826) in Giglio Island, Tuscany. 47° Congresso della Società Italiana di Biologia Marina, Turin 13-17 June 2016. POSTER

Casoli E., Nicoletti L., Mastrantonio G., Jona-Lasinio G., Belluscio A., Ardizzone G.D. (2017). Scuba diving damage on coralligenous builders: bryozoan species as indicator of stress. Workshop Il coralligeno dei mari italiani, Ustica 5-8 September 2017. ORAL COMMUNICATION

Casoli E., Nicoletti L., Ventura D., Belluscio A., Giandomenico G.D. (2017). Photography in the study of bryozoan assemblages in coralligenous habitats; how different growth forms contribute to the development of the framework. 52th European Marine Biology Symposium, Piran 25-29 September 2017. ORAL COMMUNICATION

Casoli E., Antonelli F., Sacco Perasso C., Cesaretti A., Gravina M.F., Ricci S. (2017). Occurrence of boring Polychaetes in calcareous panels at Baiae (Naples, Italy). 9th International Bioerosion Workshop, Rome 23-27 October 2017. ORAL COMMUNICATION

Casoli E., Antonelli F., Sacco Perasso C., Ricci S. (2017). Ichnological approach to the study of microendolithic colonization of experimental carbonate substrates. 9th International Bioerosion Workshop, Rome 23-27 October 2017. ORAL COMMUNICATION

Ricci S., Antonelli F., Sacco Perasso C., Cesaretti A., **Casoli E.**, Gravina M.F. (2017). The case study of Polychaetes borers of submerged mosaic floors in the Underwater Archaeological Park of Baiae (Naples, Italy). 9th International Bioerosion Workshop, Rome 23-27 October 2017. ORAL COMMUNICATION

Casoli E., Ventura D., Mancini G., Belluscio A., Ardizzone G.D. (2019). Un nuovo strumento per lo studio e il monitoraggio dei reef a coralligeno. 50° Congresso della Società Italiana di Biologia Marina, Livorno 10-14 June 2019. POSTER

Ventura D., Bonifazi A., Gravina M.F., **Casoli E.**, Mancini G., Belluscio A., Ardizzone G.D. (2019). Rilievo GPS-RTK e fotogrammetria con drone per la valutazione degli effetti di un evento estremo di mareggiata in una baia rocciosa dell'Isola del Giglio. 50° Congresso della Società Italiana di Biologia Marina, Livorno 10-14 June 2019. POSTER

Casoli E. (2021). Prospettive e opportunità per un biologo marino. Invited speaker at "Blue jobs: opportunità professionali nella salvaguardia della biodiversità, l'uso sostenibile delle risorse e la transizione ecologica in ambiente marino" organizzato dal Dipartimento di Scienze Ecologiche e Biologiche (DEB), Università degli studi della Tuscia, 16 April 2021. ORAL COMMUNICATION

Casoli E. (2022). Prospettive e opportunità per un eco-biologo marino: il ruolo dell'operatore scientifico subacqueo. Invited speaker at "Blue jobs: opportunità professionali nella salvaguardia della biodiversità, l'uso sostenibile delle risorse e la transizione ecologica in ambiente marino" organizzato dal Dipartimento di Scienze Ecologiche e Biologiche (DEB), Università degli studi della Tuscia, 7 June 2022. ORAL COMMUNICATION

Casoli E., Ventura D., Mancini G., Belluscio A., Ardizzone G.D. (2022). Recupero e restauro di ecosistemi marini in Mediterraneo: il caso dell'Isola del Giglio. 51° Congresso della Società Italiana di Biologia Marina, 14-17 June 2022. ORAL COMMUNICATION

Ventura D., **Casoli E.** (2022). Mappatura degli habitat marini bentonici, tecniche emergenti e nuove frontiere. Webinar organizzato dal Comitato Benthos della Società Italiana di Biologia Marina (SIBM), 24 October 2022. ORAL COMMUNICATION

PUBLICATIONS

Casoli E., Ricci S., Belluscio A., Gravina M.F., Ardizzone G.D. (2015). Settlement and colonization of epi-endobenthic communities on calcareous substrata in an underwater archaeological site. *Marine Ecology*, 36: 1060-1074. <https://doi.org/10.1111/maec.12201>

Casoli E., Ricci S., Antonelli F., Sacco Perasso C., Belluscio A., Ardizzone G.D. (2016). Impact and colonization dynamics of the bivalve *Rocellaria dubia* on limestone experimental panels in the submerged Roman city of Baiae (Naples, Italy). *International Biodeterioration & Biodegradation*, 108: 9-15. <https://doi.org/10.1016/j.ibiod.2015.11.026>

- Casoli E.**, Ventura D., Modica M.V., Belluscio A., Capello M., Oliverio M., Ardizzone G.D. (2016). A massive ingression of the alien species *Mytilus edulis* L. (Bivalvia: Mollusca) into the Mediterranean Sea following the Costa Concordia cruise-ship disaster. *Mediterranean Marine Science*, 17(2): 404-416. <https://doi.org/10.12681/mms.1619>
- Ricci S., Antonelli F., Sacco Perasso C., Poggi D., **Casoli E.** (2016). Bioerosion of submerged lapideous artefacts: Role of endolithic rhizoids of *Acetabularia acetabulum* (Dasycladales, Chlorophyta). *International Biodeterioration & Biodegradation*, 107: 10-16. <https://doi.org/10.1016/j.ibiod.2015.10.024>
- Casoli E.**, Bonifazi A., Ardizzone G.D., Gravina M.F. (2016). How algae influence sessile marine organisms: the tube worms case of study. *Estuarine, Coastal and Shelf Science*, 178: 12-20. <https://doi.org/10.1016/j.ecss.2016.05.017>
- Casoli E.**, Nicoletti L., Mastrantonio G., Jona-Lasinio G., Belluscio A., Ardizzone G.D. (2017). Scuba diving damage on coralligenous builders: bryozoan species as indicator of stress. *Ecological Indicators*, 74: 441-450. <https://doi.org/10.1016/j.ecolind.2016.12.005>
- Casoli E.**, Ventura D., Cutroneo L., Capello M., Jona-Lasinio G., Rinaldi R., Criscoli A., Belluscio A., Ardizzone G.D. (2017). Assessment of the impact of salvaging the Costa Concordia wreck on the deep coralligenous habitats. *Ecological Indicators*, 80: 124-134. <https://doi.org/10.1016/j.ecolind.2017.04.058>
- Toniolo C., Di Sotto A., Di Giacomo S., Ventura D., **Casoli E.**, Belluscio A., Nicoletti M., Ardizzone G.D. (2018). Seagrass *Posidonia oceanica* (L.) Delile as a marine biomarker: A metabolomic and toxicological analysis. *Ecosphere*, 9(3): e02054. <https://doi.org/10.1002/ecs2.2054>
- Casoli E.**, Bonifazi A., Ardizzone G.D., Gravina M.F., Russo G.F., Sandulli R., Donnarumma L. (2019). Comparative analysis of mollusc assemblages from different hard bottom habitats in the central Tyrrhenian Sea. *Diversity*, 11(5):74. <https://doi.org/10.3390/d11050074>
- Casoli E.**, Ricci S., Antonelli F., Sacco Perasso C., Ardizzone G.D., Gravina M.F. (2019). Colonization dynamic on experimental limestone substrata: the role of encrusting epilithics favouring boring polychaetes. *Hydrobiologia*, 842(1): 101-112. <https://doi.org/10.1007/s10750-019-04028-9>
- Gravina M.F., Antonelli F., Sacco Perasso C., Cesaretti A., **Casoli E.**, Ricci S. (2019). The role of polychaetes in bioerosion of submerged mosaic floors in the Underwater Archaeological Park of Baiae (Naples, Italy). *Facies*, 65(2): 19. <https://doi.org/10.1007/s10347-019-0563-6>
- Mancini G., **Casoli E.**, Ventura D., Jona-Lasinio G., Criscoli A., Belluscio A., Ardizzone G.D. (2019). Impact of the Costa Concordia shipwreck on a *Posidonia oceanica* meadow: a multi-scale assessment from a population to a landscape level. *Marine Pollution Bulletin*, 148: 168-181. <https://doi.org/10.1016/j.marpolbul.2019.07.044>
- Casoli E.**, Piazza L., Nicoletti L., Jona-Lasinio G., Cecchi E., Mancini G., Belluscio A., Ardizzone G.D. (2020). Ecology, distribution and demography of erect bryozoans in Mediterranean coralligenous reefs. *Estuarine, Coastal and Shelf Science*, 235: 106573. <https://doi.org/10.1016/j.ecss.2019.106573>
- Mecca S., **Casoli E.**, Ardizzone G.D., Gambi M.C. (2020). Effects of ocean acidification on phenology and epiphytes of the seagrass *Posidonia oceanica* at two CO₂ vent systems of Ischia (Italy). *Mediterranean Marine Science*, 21(1): 71-83. <https://doi.org/10.12681/mms.20795>
- Casoli E.**, Mancini G., Ventura D., Pace D.S., Belluscio A., Ardizzone G. (2020). *Reteporella* spp. success in the re-colonization of bare coralligenous reefs impacted by Costa Concordia shipwreck: The pioneer species you did not expect. *Marine Pollution Bulletin*, 161. <https://doi.org/10.1016/j.marpolbul.2020.111808>

- Barruffo A., Ciaralli L., Ardizzone G., Gambi M. C., **Casoli E.** (2021). Ocean acidification and mollusc settlement in *Posidonia oceanica* meadows: does the seagrass buffer lower pH effects at CO₂ vents?. *Diversity*, 13(7): 311. <https://doi.org/10.3390/d13070311>
- Casoli E.**, Ventura D., Mancini G., Pace D.S., Belluscio A., Ardizzone G. (2021). High spatial resolution photo mosaicking for the monitoring of coralligenous reefs. *Coral reefs*, 40: 1267–1280. <https://doi.org/10.1007/s00338-021-02136-4>
- Casoli E.**, Ventura D., Mancini G., Cardone S., Farina F., Donnini L., Pace D.S., Shaul R., Belluscio A., Ardizzone G. (2021). Rehabilitation of Mediterranean animal forests using gorgonians from fisheries by-catch. *Restoration Ecology*, e13465. <https://doi.org/10.1111/rec.13465>
- Casoli E.**, Mancini G., Ventura D., Belluscio A., Ardizzone G. (2021). Double trouble: synergy between habitat loss and the spread of the alien species *Caulerpa cylindracea* (Sonder) in three Mediterranean habitats. *Water*, 13: 1342. <https://doi.org/10.3390/w13101342>
- Martino S., Pace S., Moro S., **Casoli E.**, Ventura D., Frachea A., Silvestri M., Arcangeli A., Giacomini G., Ardizzone G., Jona Lasinio G. (2021). Integration of presence-only data from several sources: a case study on dolphins' spatial distribution. *Ecography*, 44: 1–12. <https://doi.org/10.1111/ecog.05843>
- Pace D.S., Di Marco C., Giacomini G., Ferri S., Silvestri M., Papale E., **Casoli E.**, Ventura D., Mingione M., Alaimo Di Loro P., Jona Lasinio G., Ardizzone G. (2021). Capitoline dolphins: residency patterns and abundance estimate of *Tursiops truncatus* at the Tiber river estuary (Mediterranean Sea). *Biology*, 10: 275. <https://doi.org/10.3390/biology10040275>
- Roszbach F.I., **Casoli E.**, Beck M., Wild C. (2021). Mediterranean red macro algae mats as habitat for high abundances of serpulid polychaetes. *Diversity*, 13: 265. <https://doi.org/10.3390/d13060265>
- Gravina M.F., **Casoli E.**, Donnarumma L., Giampaolletti J., Antonelli F., Perasso C.S., Ricci S. (2021). First Report on the Benthic Invertebrate Community Associated With a Bronze Naval Ram From the First Punic War: A Proxy of Marine Biodiversity. *Frontiers in Marine Science*, 8: 772499. <https://doi.org/10.3389/fmars.2021.772499>
- Mancini G., **Casoli E.**, Ventura D., Lasinio G.J., Belluscio, A., Ardizzone G.D. (2021). An experimental investigation aimed at validating a seagrass restoration protocol based on transplantation. *Biological Conservation*, 264: 109397. <https://doi.org/10.1016/j.biocon.2021.109397>
- Casoli E.**, Ventura D., Mancini G., Belluscio A., Ardizzone G. (2022). When Scientists and Industry Technologies Mitigate Habitat Loss: The First Bioconstruction Relocation in the Mediterranean Sea. *Frontiers in Marine Science*, 9: 877325. <https://doi.org/10.3389/fmars.2022.877325>
- El-Khaled Y.C., Daraghmeh N., Tilstra A., Roth F., Huettel M., Roszbach F.I., **Casoli E.**, Koester A., Beck M., Meyer R., Plewka J., Schmidt N., Winkelgrund L., Merk B., Wild, C. (2022). Fleishy red algae mats act as temporary reservoirs for sessile invertebrate biodiversity. *Communications biology*, 5(1): 579. <https://doi.org/10.1038/s42003-022-03523-5>
- Mancini G., Ventura D., **Casoli E.**, Belluscio A., Ardizzone G.D. (2022). Transplantation on a *Posidonia oceanica* meadow to facilitate its recovery after the Concordia shipwrecking. *Marine Pollution Bulletin*, 179: 113683. <https://doi.org/10.1016/j.marpolbul.2022.113683>
- Pace D. S., Ferri S., Giacomini G., Di Marco C., Papale E., Silvestri M., Pedrazzi G., Ventura D., **Casoli E.**, Ardizzone G. (2022). Resources and population traits modulate the association patterns in the common bottlenose dolphin living nearby the Tiber river estuary (Mediterranean Sea). *Frontiers in Marine Science*, 1506. <https://doi.org/10.3389/fmars.2022.935235>

Roszbach F.I., **Casoli E.**, Plewka J., Schmidt N., Wild C. (2022). New Insights into a Mediterranean Sea Benthic Habitat: High Diversity of Epiphytic Bryozoan Assemblages on *Phyllophora crispa* (Rhodophyta) Mats. *Diversity*, 14(5): 346. <https://doi.org/10.3390/d14050346>

Sacco Perasso S., Antonelli F., Calcinai B., **Casoli E.**, Gravina M.F., Ricci S. (2022). The Bioerosion of Submerged Archeological Artifacts in the Mediterranean Sea: An Overview. *Front. Mar. Sci*, 9: 888731. <https://doi.org/10.3389/fmars.2022.888731>

Ventura D., Castoro L., Mancini G., **Casoli E.**, Pace D.S., Belluscio A., Ardizzone G. (2022). High spatial resolution underwater data for mapping seagrass transplantation: A powerful tool for visualization and analysis. *Data in Brief*, 40: 107735. <https://doi.org/10.1016/j.dib.2021.107735>

Ventura D., Mancini G., **Casoli E.**, Pace D.S., Lasinio G.J., Belluscio A., Ardizzone G. (2022). Seagrass restoration monitoring and shallow-water benthic habitat mapping through a photogrammetry-based protocol. *Journal of Environmental Management*, 304: 114262. <https://doi.org/10.1016/j.jenvman.2021.114262>

Ventura D., Napoleone F., Cannucci S., Alleaume S., Valentini E., **Casoli E.**, & Burrascano S. (2022). Integrating low-altitude drone based-imagery and OBIA for mapping and manage semi natural grassland habitats. *Journal of Environmental Management*, 321: 115723. <https://doi.org/10.1016/j.jenvman.2022.115723>

Mancini G., Mastrantonio G., Pollice A., Lasinio G.J., Belluscio A., **Casoli E.**, Pace D.S., Ardizzone G.D., Ventura D. (2023). Detecting trends in seagrass cover through aerial imagery interpretation: Historical dynamics of a *Posidonia oceanica* meadow subjected to anthropogenic disturbance. *Ecological Indicators*, 150, 110209. <https://doi.org/10.1016/j.ecolind.2023.110209>

Roszbach F.I., **Casoli E.**, Beck M., Wild C. (2023). A new hope? Mediterranean algae mats are thriving with life. *Frontiers in Young Minds*, 11, 1014348.

Ventura D., Grosso L., Pensa D., **Casoli E.**, Mancini G., Valente T., Scardi M., Rakaj, A. (2023). Coastal benthic habitat mapping and monitoring by integrating aerial and water surface low-cost drones. *Frontiers in Marine Science*, 9, 1096594. <http://doi.org/10.3389/fmars.2022.1096594>

BIBLIOMETRIC INDICES

ORCID ID: 0000-0002-3128-8946

SCOPUS author ID: 56964186600

Number of publications: 35

Total citations: 312

h-index: 11

Rome, 25/09/2023

autocertificato ai sensi del D.P.R. 445/2000

F.to Dr. Edoardo Casoli