

Name	<b>Francesco Cozzoli</b>
<b>Introduction</b>	Francesco Cozzoli graduated at the University of Salento with a thesis on energetic and behavioural ecology. He carried out his doctoral research on the interactions between sediment dynamics and biota in the perspective of sustainable coastal development at the Netherlands Institute of Sea Research (NIOZ Yerseke, the Netherlands). At present, he is appointed as a researcher at the Italian National Research Council (CNR) – Research Institute on Terrestrial Ecosystems – URT Lecce. He is actively involved in research lines concerning coastal biogeomorphology, ecosystem management, energy and behavioural ecology.
<b>Qualifications</b>	
Date of achievement	12/02/2016
Description	PhD in Spatial Ecology
Thesis title	Modelling biota-sediment interactions in estuarine environments
Url	<a href="http://www.vliz.be/imisdocs/publications/ocrd/77/295777.pdf">www.vliz.be/imisdocs/publications/ocrd/77/295777.pdf</a>
Institution	Radboud Universiteit – Houtlaan, 4 - Nijmegen (Paesi Bassi)
Affiliation	Building with Nature: a new approach to hydraulic engineering that harnesses the forces of nature to benefit environment, economy and society; <a href="https://www.ecoshape.org/en/">https://www.ecoshape.org/en/</a>
Date of achievement	22/07/2009
Description	Master degree in Ecology
Evaluation	110/110 e lode
Thesis title	On the allometric scaling of resource intake under limiting conditions
Institution	Università del Salento - piazza Tancredi,7 – Lecce (Italia)
<b>Research experiences</b>	
Period	27/11/2019 – present
Position	Researcher
Institution	Italian National Research Council (CNR)
Affiliation	Research Institute on Terrestrial Ecosystems – URT Lecce; <a href="https://www.iret.cnr.it/en/organisation/headquarters-territorial-units/urt-lecce">https://www.iret.cnr.it/en/organisation/headquarters-territorial-units/urt-lecce</a>
Task	To give continuity and strengthen the collaboration between the Research Institute on Terrestrial Ecosystems (IRET) and the University of Salento, and to conduct activities within the framework of LifeWatch ERIC, the European research infrastructure for biodiversity and ecosystem research.

Period	01/12/2018 – 26/11/2019
Position	Research grant holder
Institution	Università del Salento - piazza Tancredi,7 – Lecce
Affiliation	ECOPOTENTIAL: improving future ecosystem benefits through Earth observations; <a href="http://www.ecopotential-project.eu">http://www.ecopotential-project.eu</a>
Task	Development, management and dissemination of ECOPOTENTIAL4SCHOOLS, an online gaming platform dedicated to primary and secondary schools and aimed at informing and sensitizing students and teachers on environmental issues.
Period	01/12/2017 – 30/11/2018
Position	Research grant holder
Institution	Università del Salento - piazza Tancredi,7 – Lecce
Affiliation	ECOPOTENTIAL: improving future ecosystem benefits through Earth observations; <a href="http://www.ecopotential-project.eu">http://www.ecopotential-project.eu</a>
Task	Comparison of in situ existing data and their organization on a larger scale. Development, management and dissemination of ECOPOTENTIAL4SCHOOLS, an online gaming platform dedicated to primary and secondary schools and aimed at informing and sensitizing students and teachers on environmental issues.
Period	01/12/2016 - 30/11/2017
Position	Research grant holder
Institution	Università del Salento - piazza Tancredi,7 – Lecce
Affiliation	ECOPOTENTIAL: improving future ecosystem benefits through Earth observations; <a href="http://www.ecopotential-project.eu">http://www.ecopotential-project.eu</a>
Task	Comparison of the different protected areas considered within the ECOPOTENTIAL project. Investigation and integration of ecosystem processes and monitoring practices through different scales of observation.
Period	01/12/2015 - 30/11/2016
Position	Research grant holder
Institution	Università del Salento - piazza Tancredi,7 – Lecce
Affiliation	ACTIONMED: Action Plans for Integrated Regional Monitoring Programmes, Coordinated Programmes of Measures and Addressing Data and Knowledge Gaps in Mediterranean Sea; <a href="http://actionmed.eu">http://actionmed.eu</a>
Task	Analysis of bibliographic coverage and operational performance of different environmental descriptors used or proposed in MSFD.
Period	01/08/2014 - 31/07/2015
Position	Research grant holder
Institution	Università del Salento - piazza Tancredi,7 – Lecce

Affiliation	IRIS – SES: Integrated Regional monitoring Implementation Strategy in the South European Seas; <a href="http://iris-ses.eu">http://iris-ses.eu</a>
Task	Analysis of existing marine monitoring plans in Europe. Drafting guidelines for the implementation of future MSFD monitoring plans
<b>Awards</b>	
	Premio Luigi e Francesca Brusarosco (2015)
Awarded by	Italian Society of Ecology
Motivation	Integration of physical and biological elements in environmental predictive models: an application for coastal environments. Project developed and completed between February and June 2016 at NIOZ - Yerseke (NL)

**Scientific and professional skills**

Theoretical and applied ecology  
Design and implementation of laboratory and field experiments  
Data and Literature mining  
Statistical analysis  
Spatial analysis  
Satellite data analysis  
Dynamic modelling  
Conceptualization and writing of scientific publications  
Management of working groups  
Organization of scientific and training events  
Organization of didactic courses  
Supervision of students

**Language skills**

Native language Italian  
Very advanced English

**IT skills**

Operating systems Linux, Win, Mac  
Calculation and modelling R, MATLAB  
GIS QGIS, GRASS, SAGA, ArcGis  
Dissemination Latex, LibreOffice, Microsoft Office

*Scientific publications*

- Cozzoli, F, Shokri, M, Ciotti, M, Marrocco, V, Vignes, F, Basset, A. Size dependency of foraging behaviour: an empirical test performed on aquatic amphipods (2021). Under review
- Cozzoli, F, Shokri, M, Gomes Da Conceição, T, Herman, PMJ, Hu, Z, Soissons, LM, Van Dalen, J, Ysebaert, T, Bouma, TJ (2021). Modelling spatial and temporal patterns in bioturbator effects on sediment resuspension: a biophysical metabolic approach. SCIENCE OF THE TOTAL ENVIRONMENT, in press. ISSN 0048-9697 doi: <https://doi.org/10.1016/j.scitotenv.2021.148215>
- Francé, J, Varkitzi, I, Stanca, E, Cozzoli, F, Skejić, S., Ungaro, N, Vascotto, I, Moezetic, P, Nincevic Gladan, Z, Assimakopoulou, G, Pavlidou, A, Zervoudaki, S, Pagou, K, Basset, A. (2021). Large-scale testing of phytoplankton diversity indices for environmental assessment in Mediterranean sub-regions (Adriatic, Ionian and Aegean Seas). ECOLOGICAL INDICATORS, 126, 107630. ISSN: 1470-160X, doi: <https://doi.org/10.1016/j.ecolind.2021.107630>
- Bertoli, M, Piazza, G, Pastorino, P, Prearo, M, Cozzoli, F, Vignes, F, Basset, A, Pizzul, E. (2021). Macrobenthic invertebrate energy densities and ecological status in freshwater watercourses (Friuli Venezia-Giulia, Northeast Italy). AQUATIC ECOLOGY, 55(2), 501-518. ISSN: 1573-5125, doi: <https://doi.org/10.1007/s10452-021-09840-x>
- Shokri, M, Cozzoli, F, Ciotti, M, Gjoni, V, Marrocco, V, Vignes, F, & Basset, A (2021). A new approach to assessing the space use behavior of macroinvertebrates by automated video tracking. ECOLOGY AND EVOLUTION, 11(7), 3004-3014. ISSN: 2045-7758, doi: <https://doi.org/10.1002/ece3.7129>
- Gravili, C, Cozzoli, F, Gambi, MC (2021). Epiphytic hydroids on Posidonia oceanica seagrass meadows are winner organisms under future ocean acidification conditions: evidence from a CO2 vent system (Ischia Island, Italy). THE EUROPEAN ZOOLOGICAL JOURNAL, 88(1), 472-486. ISSN: 2475-0263, doi: <https://doi.org/10.1080/24750263.2021.1899317>
- Cozzoli, F, Shokri, M, Ligetta, G, Ciotti, M, Gjoni, V, Marrocco, V, Vignes, F, Basset, A (2020). Relationship between individual metabolic rate and patch departure behaviour: evidence from aquatic gastropods. OIKOS 129(11), 1657-1667. ISSN 1600-0706, doi: <https://doi.org/10.1111/oik.07378>
- Stanca, E, Fiore, N, Rosati, I, Vaira, L, Cozzoli, F, Basset, A (2020). Case Study: LifeWatch Italy Phytoplankton VRE. In Towards Interoperable Research Infrastructures for Environmental and Earth Sciences (pp. 324-341). Springer, Cham, ISBN 978-3-030-52829-4, doi: [https://doi.org/10.1007/978-3-030-52829-4\\_18](https://doi.org/10.1007/978-3-030-52829-4_18)
- Hu, Z, Zhou, J, Wang, C, Wang, H, He, Z, Peng, Y, Zheng, P, Cozzoli, F, Bouma, TJ (2020). A novel instrument for bed dynamics observation supports machine learning applications in mangrove biogeomorphic processes. WATER RESOURCES RESEARCH, 56(7), e2020WR027257, ISSN 1944-7973, doi: <https://doi.org/10.1029/2020WR027257>

- Cozzoli, F, Gomes Da Conceição, T, Van Dalen, J, Fang, X, Gjoni, V, Herman, PMJ, Hu, Z, Soissons, LM, Walles, B, Ysebaert, T, Bouma, TJ (2020). Biological and physical drivers of bio-mediated sediment resuspension: A flume study on *Cerastoderma edule*. *ESTUARINE, COASTAL AND SHELF SCIENCE*, 241, 106824, ISSN 0272-7714, doi: <https://doi.org/10.1016/j.ecss.2020.106824>
- Soissons, LM, Gomes da Conceição, T, Bastiaan, J, van Dalen, J, Ysebaert, T, Herman, PMJ, Cozzoli, F, Bouma, TJ (2019). Sandification vs. muddification of tidal flats by benthic organisms: A flume study. *ESTUARINE, COASTAL AND SHELF SCIENCE*, 228, 106355, ISSN 0272-7714, doi: <https://doi.org/10.1016/j.ecss.2019.106355>
- Li, B, Bouma, TJ, Wang, Q, Soissons, LM, Cozzoli, F, Feng, G, Li, X, Zhou, Z, Chen, L (2019). Effects of key species mud snail *Bullacta exarata* (Gastropoda) on oxygen and nutrient fluxes at the sediment-water interface in the Huanghe River Delta, China. *ACTA OCEANOLOGICA SINICA*, 38(8), 48-55, ISSN 1872-2032, doi <https://doi.org/10.1007/s13131-019-1430-6>
- Cozzoli F, Gjoni V, Basset A (2019). Size dependency of patch departure behaviour: evidence from granivorous rodents. *ECOLOGY* – 100(10) e02800, ISSN 1939-9170, doi <https://doi.org/10.1002/ecy.2800>
- Cozzoli, F; Gjoni, V; Del Pasqua M; Hu, Z; Ysebaert, T; Herman, PMJ; Bouma, TJ (2019) A unified view of cohesive sediment resuspension under bioturbators influence. *SCIENCE OF THE TOTAL ENVIRONMENT* – 670, 18-30, ISSN 0048-9697, doi: <https://doi.org/10.1016/j.scitotenv.2019.03.085>
- Cozzoli, F, Ligetta, G, Vignes, F, Basset, A (2018). Revisiting GUD: An empirical test of the size-dependency of patch departure behaviour. *PLOS ONE*, 13(9), e0204448, ISSN 1544-9173, doi: <https://doi.org/10.1371/journal.pone.0204448>
- Cozzoli F, Bouma TJ, Ottolander P, Lluch MS, Ysebaert, T, Herman PMJ (2018). The combined influence of body size and density on cohesive sediment resuspension by bioturbators. *SCIENTIFIC REPORTS*, ISSN: 2045-2322, doi: <https://doi.org/10.1038/s41598-018-22190-3>
- Varkitzi, I, Francé, J, Basset, A, Cozzoli, F, Stanca, E, Zervoudaki, S, Giannakourou, A, Assimakopoulou, G, Venetsanopoulou, A, Mozetic, P, Tinta, T, Skejic, S, Vidjak, O, Cadiou, J-F., Pagou, K (2018). Pelagic habitats in the Mediterranean Sea: A review of Good Environmental Status (GES) determination for plankton components and identification of gaps and priority needs to improve coherence for the MSFD implementation. *ECOLOGICAL INDICATORS*, vol. 95, p. 203-218, ISSN: 1470-160X, doi: <https://doi.org/10.1016/j.ecolind.2018.07.036>
- Cozzoli, F, Stanca, E, Selmeçy, GB, Francé, J, Varkitzi, I, Basset, A (2017). Sensitivity of phytoplankton metrics to sample-size: A case study on a large transitional water dataset (WISER). *ECOLOGICAL INDICATORS*, vol. 82, p. 558-573, ISSN: 1470-160X, doi: <https://doi.org/10.1016/j.ecolind.2017.07.022>
- Cozzoli F, Smolders S, Eelkema M, Ysebaert T, Escaravage V, Temmerman S, Meire P, Herman PMJ, Bouma TJ (2017). A modeling approach to assess coastal management effects on benthic habitat quality: A case study on coastal defense and navigability. *ESTUARINE, COASTAL AND SHELF SCIENCE*, vol. 184, p. 67-82, ISSN: 0272-7714, doi: <https://doi.org/10.1016/j.ecss.2016.10.043>

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- Gravili C, Cozzoli F, Boero F (2017). The historical reconstruction of distribution of the genus *Halecium* (Hydrozoa: Haleciidae): a biological signal of ocean warming? *MARINE BIOLOGY RESEARCH*, vol. 13, p. 587-601, ISSN: 1745-1000, doi: <https://doi.org/10.1080/17451000.2017.1290805>
- Li B, Cozzoli F, Soissons LM, Bouma TJ, Chen LL (2017). Effects of bioturbation on the erodibility of cohesive versus non-cohesive sediments along a current-velocity gradient: A case study on cockles. *JOURNAL OF EXPERIMENTAL MARINE BIOLOGY AND ECOLOGY*, vol. 496, p. 84-90, ISSN: 0022-0981, doi: <https://doi.org/10.1016/j.jembe.2017.08.002>
- Li B, Li XJ, Bouma TJ, Soissons LM, Cozzoli F, Wang QC, Zhou ZQ, Chen LL (2017). Analysis of macrobenthic assemblages and ecological health of Yellow River Delta, China, using AMBI & M-AMBI assessment method. *MARINE POLLUTION BULLETIN*, vol. 119, p. 23-32, ISSN: 0025-326X, doi: <https://doi.org/10.1016/j.marpolbul.2017.03.044>
- Roselli L, Litchman E, Stanca E, Cozzoli F, Basset A (2017). Individual trait variation in phytoplankton communities across multiple spatial scales. *JOURNAL OF PLANKTON RESEARCH*, vol. 39, p. 577-588, ISSN: 0142-7873, doi: <https://doi.org/10.1093/plankt/fbx001>
- Zhu ZC, Cozzoli F, Chu NY, Salvador M, Ysebaert T, Zhang LQ, Herman PMJ, Bouma TJ (2016). Interactive effects between physical forces and ecosystem engineers on seed burial: a case study using *Spartina anglica*. *OIKOS*, vol. 125, p. 98-106, ISSN: 0030-1299, doi: 10.1111/oik.02340
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- Cozzoli F, Bouma TJ, Ysebaert T, Herman P.M.J. (2013). Application of non-linear quantile regression to macrozoobenthic species distribution modelling: comparing two contrasting basins. *MARINE ECOLOGY PROGRESS SERIES*, ISSN: 0171-8630, doi: <https://doi.org/10.3354/meps10112>
- de Lucas Pardo MA, Bakker M, van Kessel T, Cozzoli F, Winterwerp JC (2013). Erodibility of soft freshwater sediments in Markermeer: the role of bioturbation by meiobenthic fauna. *OCEAN DYNAMICS*, vol. 63, p. 1137-1150, ISSN: 1616-7341, doi: <https://doi.org/10.1007/s10236-013-0650-0>
- Basset A, Cozzoli F, Paparella, F (2012). A unifying approach to allometric scaling of resource ingestion rates under limiting conditions. *ECOSPHERE*, ISSN: 2150-8925, doi: <https://doi.org/10.1890/ES11-00249.1>

### **Reports**

- Paramana T, Katsouras G, Chalkiadaki O, Ladakis M, Dassenakis M, Reizopoulou S, Basset A, Cozzoli F and many others (2017) Final report on MSFD biodiversity descriptors/indicators for the Mediterranean - a comparison of targets and associated indicators & proposal of a common set of

biodiversity indicators for the Mediterranean Sea. 311p. Affiliation: ACTIONMED

- Reizopoulou S, Basset A, Cozzoli F, Antoniadis S, Simboura N, Panayotidis P, Streftaris N, Arvanitidis C, Gurban G, Giannoudi L, Pagou K (2017) Recommendations and a roadmap for biodiversity monitoring and assessment mid and long term action plans in Mediterranean Member States. Affiliation: ACTIONMED
- Alemany F, Martin M, Bellas J, Cozzoli F, France J, Orthodoxou D, Paramana T, Varkitzi I (2017) Relational Database on MSFD monitoring programs in the Mediterranean. Affiliation: ACTIONMED
- Alemany F, Bellas J, Cozzoli F, France J, Orthodoxou D, Paramana T, Varkitzi I (2017) MSFD monitoring programs in the Mediterranean: Report on analysis of gaps and evaluation of their coherence at regional level. Affiliation: ACTIONMED
- Lazar L, Tutak B, Beken Polat Ç, Basset A, Moncheva S, Dassenakis M, Paramana T, Loizidou X, Alemany F, Assimakopoulou G, Balbín R, Boicenco L, Campillo JA, Coatu V, Cortés D, Cozzoli F and many others (2015) Outcomes of the cataloguing of current monitoring programmes. In: Outcomes of the cataloguing of current monitoring programmes and analysis of pressures - IRIS-SES project. Pagou K, Giannoudi L, Streftaris N (eds). Affiliation: IRIS-SES
- Renzi M, Cozzoli F and many others (2015) Guidelines on spatial and temporal extent of monitoring water column and seabed habitats indicators based on their scales of natural variation. Affiliation: IRIS-SES, doi: 10.13140/2.1.4771.1520

#### Websites

- ActionMed 1.1.2 Indicators catalogue:  
[http://193.204.79.93:3838/SHINY/SHINY\\_SERVER/ACTIONMEDCATALOGUE/](http://193.204.79.93:3838/SHINY/SHINY_SERVER/ACTIONMEDCATALOGUE/)
- ECOPOTENTIAL4SCHOOLS Didactic platform:  
<http://ecopotential4schools.lifewatchitaly.eu>

#### References

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