

Curriculum Vitae
Prof. Antonio Dell'Anno

*Department of Life and Environmental Sciences, Polytechnic University of Marche
Via Breccie Bianche, 60131 Ancona, Italy*

EDUCATION

1993 Master degree in Biology (University of Genova, Italy)

2000 PhD in Environmental Sciences: Marine Environment and Resources (University of Messina, Italy)

CURRENT POSITION

2018-present Full Professor of Ecology at the Polytechnic University of Marche

Lecture in Applied Eco-Technology, Environmental Sustainability, Marine Conservation Biology

PREVIOUS POSITIONS

1994-1995 Research grant at the Service de l'Environnement of the Principality of Monaco (Principality of Monaco)

1995-1996 Research grant at the Institute of Environmental Marine Science (University of Genova, Italy)

2000-2002 Post-doc research grant at the Department of Zoology (University of Bari, Italy)

2002-2004 Post-doc research grant at the Department of Marine Science (Polytechnic University of Marche, Italy)

2005-2015 Researcher of Ecology at the Polytechnic University of Marche

2015-2018 Associate Professor of Ecology at the Polytechnic University of Marche

HONORS AND AWARDS

2005 Award of the Faculty of Sciences Polytechnic University of Marche University for the original contribution to knowledge of the role of extracellular DNA in the functioning of benthic deep-sea ecosystems (Science 2005, 309:2179)

2010 Award of the Faculty of Sciences Polytechnic University of Marche (2010) for the scientific production of highly ranked publications

2010 BMC Biology Award, as co-author of the article "The first metazoan living in permanently anoxic marine sediments" BMC Biology 8: 30

INSTITUTIONAL RESPONSIBILITIES

2008-present Responsible of the Microbial and Molecular Ecology Laboratory at the Department of Life and Environmental Sciences of the Polytechnic University of Marche

2009-present Member of the scientific committee of the Inter-University Consortium High-Tech Recycling (Università Roma La Sapienza, L'Aquila, Ancona, Genova, Cagliari, Bologna, IGAG-CNR)

2016-present Departmental quality research responsible

2018 – present Member of the technical-scientific committee of the National Technological Cluster Blue Italian Growth (BIG), within the blue biotechnology trajectory

PARTICIPATION TO INTERNATIONAL PROJECTS

MERCES: Marine Ecosystem Restoration in Changing European Seas (Horizon 2020)

MIDAS: Managing Impacts of Deep-sea resource exploitation (FPVII)

DEVOTES: DEvelopment Of innovative Tools for understanding marine biodiversity and assessing good

Environmental Status (FPVII)

HERMIONE: Hotspot Ecosystem Research and Man's Impact on European Seas, EU (FPVII)

SESAME: Southern European Seas: Assessing and Modeling Ecosystem changes, EU (FPVI)

HERMES: Hot-spot ecosystem research on the margins of European Seas, EU (FPVI)

MAP: Marine Aerosol Production: Primary & Secondary Marine Aerosol Production from Natural Sources, EU (FPVI)

CORALZOO: The development of an SME-friendly European breeding program for hard corals, EU (FPVI)

REEFRES: Developing Ubiquitous Restoration Practices for Indo-Pacific Coral Reefs, EU (FPVI)

MEDVEG: Effects of nutrient release from Mediterranean fish farms on benthic vegetation in coastal ecosystems, EU (FPV)

INTERPOL: Impact of natural and trawling events on Resuspension, dispersion of pollutants and fairies, EU (FPV-EU)

ADIOS: Atmospheric Deposition and Impact of pollutants, key elements and nutrients on the Open Mediterranean Sea (FPV)

MATER: Mass Transfer and Ecosystem Response, EU (FPIV)

BENGAL: High Resolution Temporal and spatial study of the benthic biology and Geochemistry of a north-eastern Atlantic abyssal Locality (FPIV)

CINCS: Pelagic-Benthic Coupling in the oligotrophic Cretan Sea (FPIII)

PROJECT EVALUATOR

Evaluator of proposals for the National Science Foundation (NSF), USA

Evaluator of research projects for the Netherlands Organization for Scientific Research, The Netherlands

EDITORIAL ACTIVITY

2002-present Assistant Editor of *Chemistry & Ecology* (Taylor & Francis)

2010-present Editorial Board of *Advances in Limnology and Oceanography* (Taylor & Francis)

2014-present Review Editor of *Frontiers in Marine Science, Section Deep-sea Environments and Ecology*.

RESEARCH ACTIVITY AND SCIENTIFIC PUBLICATIONS

AD has carried out his research in several marine ecosystems worldwide, from transitional aquatic to polar ecosystems from coastal marine environments to deep-sea ecosystems. His research interests deal with molecular and microbial ecology with special focus on the role of marine microbes (including viruses) in biogeochemical cycles and ecosystem functioning and on issues dealing with marine pollution, sustainability, remediation and restoration. AD has published more than 110 articles in highly ranked scientific journals (total IF >520), including *Nature*, *Science*, *PNAS*, *Science Advances*, *Trends in Ecology & Evolution*, *Current Biology* and several chapters on methodological and scientific monographs. AD scores a Hirsch factor of 42 (Google Scholar), and more than 6000 citations. Six of the articles published by AD have been selected by the *Faculty of 1000 Biology* for their originality and scientific advancements in biological and ecological disciplines.

LIST OF PUBLICATIONS ON ISI JOURNALS

1. Danovaro R., Marrale D., Della Croce N., Dell'Anno A., Fabiano M. (1998) Heterotrophic nanoflagellates, bacteria and labile organic compounds in continental shelf and deep-sea sediments of the Eastern Mediterranean. *Microbial Ecology*, 35: 244-255
2. Dell'Anno A., Fabiano M., Duineveld G., Kok A., Danovaro R. (1998) Nucleic acid (DNA, RNA) quantification and RNA:DNA ratio determination in marine sediments: comparison of spectrophotometric, fluorometric and High-performance liquid chromatography methods and estimation of detrital DNA. *Applied and Environmental Microbiology*, 64:3238-3245
3. Danovaro R., Pusceddu A., Covazzi A., Marrale D., Dell'Anno A., Petrillo M., Albertelli G., Della Croce N. (1999) Community experiments using benthic chambers: Microbial significance in highly organic enriched sediments. *Chemistry and Ecology*, 16:7-30
4. Danovaro R., Dell'Anno A., Pusceddu A., Fabiano M. (1999) Nucleic acid concentrations (DNA, RNA) in the continental and deep-sea sediments of the eastern Mediterranean: relationships with seasonally varying organic inputs and bacterial dynamics. *Deep-Sea Research I*, 46:1077-1094
5. Danovaro R., Dell'Anno A., Martorano D., Parodi P., Marrale D., Fabiano M. (1999) Seasonal variation in the biochemical composition of deep-sea nematodes: bioenergetic and methodological considerations. *Marine Ecology Progress Series*, 179:273-283
6. Dell'Anno A., Marrale D., Pusceddu A., Fabiano M., Danovaro R. (1999) Particulate nucleic acid dynamics in a highly oligotrophic system: the Cretan Sea (Eastern Mediterranean) *Marine Ecology Progress Series*, 186:19-30
7. Dell'Anno A., Fabiano M., Mei M.L., Danovaro R. (1999). Pelagic-benthic coupling of nucleic acids in an abyssal location of the northeastern Atlantic ocean. *Applied and Environmental Microbiology*, 65:4451-4457
8. Dell'Anno A., Fabiano M., Bompadre S., Armeni M., Leone L., Danovaro R. (1999). Phytopigment and DNA determinations in long-time formalin-preserved trap samples. *Marine Ecology Progress Series*, 191:71-77
9. Guglielmo L., Carrada G.C., Catalano G., Dell'Anno A., Fabiano M., Lazzara L., Mangoni O., Pusceddu A., Saggiomo E. (2000) Structural and functional properties of sympagic communities in the annual sea ice at Terra Nova Bay (Ross-Sea, Antarctica). *Polar Biology*, 23:137-146
10. Pusceddu A., Dell'Anno A., Fabiano M. (2000). Organic matter composition in coastal sediments at Terra Nova Bay (Ross Sea) during summer 1995. *Polar Biology*, 23:288-293
11. Dell'Anno A., Fabiano M., Mei M.L., Danovaro R. (2000) Enzymatically hydrolysed protein and carbohydrate pools in deep-sea sediments: estimates of the potentially bioavailable fraction and methodological considerations. *Marine Ecology Progress Series*, 196:15-23
12. Danovaro R., Dell'Anno, A., Pusceddu, A., Marrale, D., Della Croce, N., Fabiano, M., Tselepidis, A. (2000) Biochemical composition of pico-, nano- and micro-particulate organic matter and bacterioplankton biomass in the oligotrophic Cretan Sea (NE Mediterranean). *Progress in Oceanography*, 46:279-310

13. Danovaro R., Della Croce, N., Dell'Anno, A., Fabiano, M., Marrale, D., Martorano, D. (2000) Seasonal changes and biochemical composition of the labile organic matter flux in the Cretan Sea. *Progress in Oceanography*, 46:259-278
14. Danovaro R., Marrale, D., Dell'Anno, A., Della Croce, N., Tselepides A., Fabiano M. (2000) Bacterial response to seasonal changes in labile organic matter composition on the continental shelf and bathyal sediments of the Cretan Sea. *Progress in Oceanography*, 46:345-366
15. Tselepides A., Polychronaki T., Marrale D., Akoumianaki I., Dell'Anno A., Pusceddu A., Danovaro R. (2000) Organic matter composition of the continental shelf and bathyal sediments of the Cretan sea (NE Mediterranean). *Progress in Oceanography*, 46:311-344
16. Danovaro R., Dell'Anno A., Trucco A., Serresi M., Vanucci S. (2001) Determination of virus abundance in marine sediments. *Applied and Environmental Microbiology*, 67:1384-1387
17. Danovaro R., Dell'Anno A., Fabiano M., Pusceddu A., Tselepides A. (2001) Deep-sea ecosystem response to climate changes: the eastern Mediterranean case study. *Trends in Ecology and Evolution*, 16:505-510
18. Danovaro R., Armeni M., Dell'Anno A., Fabiano M., Manini E., Marrale D., Pusceddu A., Vanucci S. (2001) Small-scale distribution of bacteria, enzymatic activities, and organic matter in coastal sediments. *Microbial Ecology*, 42:177-185
19. Vanucci S., Dell'Anno A., Pusceddu A., Fabiano M., Lampitt R., Danovaro R. (2001) Microbial assemblages associated with sinking particles in the Porcupine Abyssal Plain (NE Atlantic Ocean). *Progress in Oceanography*, 50:123-145
20. Fabiano M., Pusceddu A., Dell'Anno A., Armeni M., Vanucci S., Lampitt R., Wolff G.A., Danovaro R. (2001) Fluxes of phytopigments and labile organic matter to the deep ocean in the NE Atlantic ocean. *Progress in Oceanography*, 50:89-104
21. Danovaro R., Dell'Anno A., Fabiano M. (2001) Bioavailability of organic matter in the sediments of the Porcupine Abyssal Plain, northeastern Atlantic. *Marine Ecology Progress Series*, 220:25-32
22. Danovaro R., Dell'Anno A., Pusceddu A., Fabiano M., Tselepides A. (2002) Where is the climate? (Response from Danovaro, Dell'Anno, Pusceddu, Fabiano, Tselepides). *Trends in Ecology and Evolution*, 17:14
23. Danovaro R., Manini M., Dell'Anno A. (2002) Higher abundance of bacteria than of viruses in deep Mediterranean sediments. *Applied and Environmental Microbiology*, 68:1468-1472
24. Dell'Anno A., Bompadre S. Danovaro R. (2002) Quantification, base composition, and fate of extracellular DNA in marine sediments. *Limnology and Oceanography*, 47:899-905
25. Dell'Anno A., Mei M.L., Pusceddu A. Danovaro R. (2002) Assessing the trophic state and eutrophication of coastal marine systems: a new approach based on the biochemical composition of sediment organic matter. *Marine Pollution Bulletin*, 44:611-622
26. Perrone F.M., Dell'Anno A., Della Croce N., Danovaro R., Thurston M.H. (2002) Population biology of *Hirondellea* sp. nov. (Amphipoda: Gammaridea: Lysianassoidea) from the Atacama Trench

- (south-east Pacific Ocean). *Journal of the Marine Biological Association of the United Kingdom*, 82:419-425
27. Dell'Anno A., Mei M.L., Ianni C., Danovaro R. (2003) Impact of bioavailable heavy metals on bacterial activities in coastal marine sediments. *World Journal of Microbiology & Biotechnology*, 19:93-100
 28. Dell'Anno A., Incera M., Mei M.L., Pusceddu A. (2003) Mesoscale variability of organic matter composition in NW Adriatic sediments. *Chemistry and Ecology*, 19:33-45
 29. Pusceddu A., Dell'Anno A., Danovaro R., Manini E., Sarà G., Fabiano M. (2003) Enzymatically hydrolyzable protein and carbohydrate sedimentary pools as indicators of the trophic state of detritus sink systems: a case study in a Mediterranean coastal lagoon. *Estuaries*, 26:641-650
 30. Danovaro R., Della Croce N., Dell'Anno A., Pusceddu A. (2003) A depocenter of organic matter at 7800m depth in the SE Pacific Ocean. *Deep-Sea Research I*, 50:1411-1420
 31. Perrone F.M., Della Croce N., Dell'Anno A. (2003) Biochemical composition and trophic strategies of the amphipod *Eurythenes gryllus* at hadal depths (Atacama trench, South Pacific). *Chemistry and Ecology*, 19:441-449
 32. Guglielmo L., Carrada G.C., Catalano G., Cozzi S., Dell'Anno A., Fabiano M., Granata A., Lazzara L., Lorenzelli R., Manganaro A., Mangoni O., Misic C., Modigh M., Pusceddu A., Saggiomo V. (2004) Biogeochemistry and algal communities in the annual sea ice at Terra Nova Bay (Ross Sea, Antarctica). *Chemistry and Ecology*, 20:43-55
 33. Dell'Anno A., Corinaldesi C. (2004) Degradation and turnover of extracellular DNA in marine sediments: ecological and methodological considerations. *Applied and Environmental Microbiology*, 70:4384-4386
 34. Luna G.M., Dell'Anno A., Giuliano L., Danovaro R. (2004) Bacterial diversity in deep Mediterranean sediments: relationship with the active bacterial fraction and substrate availability. *Environmental Microbiology*, 6:745-753
 35. Danovaro R., Dell'Anno A., Pusceddu A. (2004) Biodiversity response to climate change in a warm deep sea. *Ecology Letters*, 7:821-828
 36. Corinaldesi C., Danovaro R., Dell'Anno A. (2005) Simultaneous recovery of extracellular and intracellular DNA suitable for molecular studies from marine sediments. *Applied and Environmental Microbiology*, 71:46-50
 37. Danovaro R., Corinaldesi C., Dell'Anno A., Fabiano M., Corselli C. (2005) Viruses, prokaryotes and DNA in the sediments of a deep-hypersaline anoxic Basin (DHAB) of the Mediterranean Sea. *Environmental Microbiology*, 7:588-592
 38. Dell'Anno A., Danovaro R. (2005) Extracellular DNA plays a key role in deep-sea ecosystem functioning. *Science*, 309:2179

39. Dell'Anno A., Corinaldesi C., Stavrakakis S., Lykousis V., Danovaro R. (2005) Pelagic-benthic coupling and diagenesis of nucleic acids in a deep-sea continental margin and an open-slope system of the Eastern Mediterranean. *Applied and Environmental Microbiology*, 71:6070-6076
40. Danovaro R., Armeni M., Luna G.M., Amici M., Corinaldesi C., Dell'Anno A., Ferrari C., Fiordelmondo C., Gambi C., Gismondi M., Manini E., Mecozzi M., Perrone F.M., Pusceddu A., Giani M. (2005) Exoenzymatic activities and dissolved organic pools in relation with mucilage development in the Northern Adriatic Sea. *Science of the Total Environment*, 353:189-203
41. Pugnetti A., Armeni M., Camatti E., Crevatin E., Dell'Anno A., Del Negro P., Milandri A., Socal G., Fonda Umani S., Danovaro R. (2005) Imbalance between phytoplankton production and bacterial carbon demand in relation to mucilage formation in the Northern Adriatic Sea. *Science of the Total Environment*, 353:162-177
42. Luna G. M., Dell'Anno A., Danovaro R. (2006) DNA extraction procedure: a critical issue for bacterial diversity assessment in marine sediments. *Environmental Microbiology*, 8:308-320
43. Tosti L., Danovaro R., Dell'Anno A., Olivotto I., Bompadre S., Clò S., Carnevali O. (2006) Vitellogenesis in the deep-sea shark *Centroscymnus coelolepis*. *Chemistry and Ecology*, 22:335-345
44. Danovaro R., Luna G. M., Dell'Anno A., Pietrangeli B. (2006) Comparison of two fingerprinting techniques, Terminal Restriction Fragment Length Polymorphism and Automated Ribosomal Intergenic Spacer Analysis, for determination of bacterial diversity in aquatic environments. *Applied and Environmental Microbiology*, 72:5982-5989
45. Corinaldesi C., Dell'Anno A., Danovaro R. (2007) Viral infection plays a key role in extracellular DNA dynamics in marine anoxic systems. *Limnology and Oceanography*, 52:508–516
46. Danovaro R., Luna G.M., Dell'Anno A., Pietrangeli B. (2007) Measuring species richness based on microbial community fingerprints: the emperor has no clothes – Authors' reply. *Applied and Environmental Microbiology*, 73:2399-2401
47. Corinaldesi C., Dell'Anno A., Danovaro R. (2007) Early diagenesis and trophic role of extracellular DNA in different benthic ecosystems. *Limnology and Oceanography*, 52:1710-1717
48. Bongiorno L., Armeni M., Corinaldesi C., Dell'Anno A., Pusceddu A., Danovaro R. (2007) Viruses, prokaryotes and biochemical composition of organic matter in different types of mucilage aggregates. *Aquatic Microbial Ecology*, 49:15-23
49. Danovaro R., Gambi C., Dell'Anno A., Corinaldesi C., Fraschetti S., Vanreusel A., Vincx M., Gooday A.J. (2008) Exponential decline of deep-sea ecosystem functioning linked to benthic biodiversity loss. *Current Biology*, 18:1-8
50. Dell'Anno A., Raffaelli F., Danovaro R., Nanetti L., Vignini A., Moroni C. Mazzanti L. (2008) Cytotoxic effects induced by hexachlorobenzene in *Squilla mantis* (L.) (Crustacea, Stomatopoda). *Environmental Toxicology*, 23:9-14
51. Dell'Anno A., Pusceddu A., Langone L., Danovaro R. (2008) Biochemical composition and early diagenesis of organic matter in coastal sediments of the NW Adriatic Sea influenced by riverine inputs. *Chemistry and Ecology*, 24:75-85

52. Corinaldesi C., Beolchini F., Dell'Anno A. (2008) Damage and degradation rates of extracellular DNA in marine sediments: implications for the preservation of gene sequences. *Molecular Ecology*, 17:3939-3951
53. Danovaro R., Dell'Anno A., Corinaldesi C., Magagnini M., Noble R., Tamburini C., Weinbauer M. (2008) Major viral impact on the functioning of benthic deep-sea ecosystems. *Nature*, 454:1084-1087
54. Pusceddu A., Dell'Anno A., Fabiano M., Danovaro R. (2009) Quantity and bioavailability of sediment organic matter as signatures of benthic trophic status. *Marine Ecology Progress Series*, 375:41-52
55. Pusceddu A., Dell'Anno A., Vezzulli L., Fabiano M., Saggiomo V., Cozzi S., Catalano G., Guglielmo L. (2009) Microbial loop malfunctioning in the annual sea ice at terra Nova Bay (Antarctica). *Polar Biology*, 32:337-346
56. Beolchini F., Dell'Anno A., De Propris L., Ubaldini S., Cerrone F., Danovaro R. (2009) Auto- and heterotrophic acidophilic bacteria enhance the bioremediation efficiency of sediments contaminated by heavy metals. *Chemosphere*, 74:1321-1326
57. Dell'Anno A., Corinaldesi C., Magagnini M., Danovaro R. (2009) Determination of viral production in aquatic sediments using the dilution-based approach. *Nature Protocols*, 4:1013-1022
58. Luna G.M., Dell'Anno A., Corinaldesi C., Armeni M., Danovaro R. (2009) Diversity and spatial distribution of metal-reducing bacterial assemblages in groundwaters of different redox conditions. *International Microbiology*, 12:153-159
59. Dell'Anno A., Beolchini F., Gabellini M., Rocchetti L., Pusceddu A., Danovaro R. (2009) Bioremediation of petroleum hydrocarbons in anoxic marine sediments: consequences on the speciation of heavy metals. *Marine Pollution Bulletin*, 58: 1808-1814
60. Corinaldesi C., Dell'Anno A., Magagnini M., Danovaro R. (2010) Viral decay and viral production rates in continental-shelf and deep-sea sediments of the Mediterranean Sea. *FEMS Microbiology Ecology*, 72:208-218
61. Danovaro R., Dell'Anno A., Pusceddu A., Gambi C., Heiner I., Kristensen R. M. (2010) The first metazoa living in permanently anoxic conditions. *BMC Biology*, 8:30 doi: 10.1186/1741-7007-8-30
62. Spagnoli F., Dell'Anno A., De Marco A., Dinelli E., Fabiano M., Gadaleta M.V., Ianni C., Loiacono F., Manini E., Marini M., Monelli G., Rampazzo G., Rivaro P., Vezzulli L. (2010) Biogeochemistry, grain size and mineralogy of the Central and Southern Adriatic Sea sediments: a review. *Chemistry and Ecology*, 26:19-44
63. Beolchini F., Rocchetti L., Regoli F., Dell'Anno A. (2010) Bioremediation of marine sediments contaminated by hydrocarbons: experimental analysis and kinetic modelling. *Journal of Hazardous Materials*, 182:403-407
64. Nardelli M.P., Jorissen F.J., Pusceddu A., Morigi C., Dell'Anno A., Danovaro R., De Stigter H.C., Negri A. (2010) Living benthic foraminiferal assemblages along a latitudinal transect at 1000m depth off the Portuguese margin. *Micropaleontology*, 56:323-344

65. Corinaldesi C., Barucca M., Luna G.M., Dell'Anno A. (2011) Preservation, origin and genetic imprint of extracellular DNA in permanently anoxic deep-sea sediments. *Molecular Ecology*, 20:642-654
66. Danovaro R., Corinaldesi C., Dell'Anno A., Fuhrman J.A. Middelburg J.J., Noble R., Suttle C. (2011) Marine viruses and global climate change. *FEMS Microbiology Reviews*, 35:993-1034
67. Luna G.M., Dell'Anno A., Pietrangeli B., Danovaro R. (2012) A new molecular approach based on qPCR for the quantification of fecal bacteria in contaminated marine sediments. *Journal of Biotechnology*, 157:446-453
68. Beolchini F., Fonti V., Dell'Anno A., Rocchetti L., Vegliò F. (2012) Assessment of biotechnological strategies for the valorization of metal bearing wastes. *Waste Management*, 32:949–956
69. Dell'Anno A., Beolchini F., Rocchetti L., Luna G.M., Danovaro R. (2012) High bacterial biodiversity increases degradation performance of hydrocarbons during bioremediation of contaminated harbor marine sediments. *Environmental Pollution*, 167:85-92
70. Luna G.M., Bianchelli S., Decembrini F., De Domenico E., Danovaro R., Dell'Anno A. (2012) The dark portion of the Mediterranean Sea is a bioreactor of organic matter cycling. *Global Biogeochemical Cycles*, 26, GB2017, doi: 10.1029/2011GB004168
71. Rocchetti L., Beolchini F., Hallberg K.B., Johnson D.B., Dell'Anno A. (2012) Effects of prokaryotic diversity changes on hydrocarbon degradation rates and heavy metal partitioning during bioremediation of contaminated anoxic marine sediments. *Marine Pollution Bulletin*, 64:1688–1698
72. Corinaldesi C., Dell'Anno A., Danovaro R. (2012) Viral infections stimulate the metabolism and shape prokaryotic assemblages in submarine mud volcanoes. *ISME Journal*, 6:1250-1259
73. Tangherlini M., Corinaldesi C., Dell'Anno A. (2012) Viral metagenomics: a new and complementary tool for environmental quality assessment. *Chemistry and Ecology*, 28:497–501
74. Luna G.M., Corinaldesi C., Dell'Anno A., Pusceddu A., Danovaro R. (2013) Impact of aquaculture on benthic virus-prokaryote interactions in the Mediterranean Sea. *Water Research*, 47:1156-1168
75. Molari M., Manini E., Dell'Anno A. (2013) Dark inorganic carbon fixation sustains the functioning of benthic deep-sea ecosystems. *Global Biogeochemical Cycles*, 27:212-221, doi:10.1002/gbc.20030
76. Pusceddu A., Mea M., Canals M., Heussner S., Durrieu de Madron X., Sanchez-Vidal A., Bianchelli S., Corinaldesi C., Dell'Anno A., Thomsen L., Danovaro R. (2013) Major consequences of an intense dense shelf water cascading event on deep-sea benthic trophic conditions and meiofaunal biodiversity *Biogeosciences*, 10:2659-2670
77. Dell'Anno A., Pusceddu A., Corinaldesi C., Canals M., Heussner S., Thomsen L., R. Danovaro (2013) Trophic state of benthic deep-sea ecosystems from two different continental margins off Iberia. *Biogeosciences*, 10:2945–2957
78. Beolchini F., Fonti V., Rocchetti L., Saraceni G., Pietrangeli B., Dell'Anno A. (2013) Chemical and biological strategies for the mobilisation of metals/semi-metals in contaminated dredged

- sediments: experimental analysis and environmental impact assessment. *Chemistry and Ecology*, 29:415–426
79. Fonti V., Dell'Anno A., Beolchini F. (2013) Influence of biogeochemical interactions on metal bioleaching performance in contaminated marine sediment. *Water Research*, 47:5139-5152
 80. Corinaldesi C., Tangherlini M., Luna G. M., Dell'Anno A. (2014) Extracellular DNA can preserve the genetic signatures of present and past viral infection events in deep hypersaline anoxic basins. *Proceedings of the Royal Society B - Biological Sciences*, 281:20133299
 81. Beolchini F., Rocchetti L., Dell'Anno A. (2014) Degradation kinetics of butyltin compounds during the bioremediation of contaminated harbour sediments. *Chemistry and Ecology*, 30:393–402
 82. Fonti V., Beolchini F., Rocchetti L., Dell'Anno A. (2015) Bioremediation of contaminated marine sediments can enhance metal mobility due to changes of bacterial diversity. *Water Research*, 68:637-650
 83. Dell'Anno A., Corinaldesi C., Danovaro R. (2015) Virus decomposition provides an important contribution to benthic deep-sea ecosystem functioning. *Proceedings of the National Academy of Sciences of the United States of America*, 112:E2014-E2019
 84. Danovaro R., Corinaldesi C., Rastelli E., Dell'Anno A. (2015) Towards a better quantitative assessment of the relevance of deep-sea viruses, Bacteria and Archaea in the functioning of the ocean seafloor. *Aquatic Microbial Ecology*, 75:81–90
 85. Beolchini F., Rocchetti L., Fonti V., Dell'Anno A. (2015) Consequences of anaerobic biotreatments of contaminated sediments on metal mobility. *International Journal of Environmental Science and Technology*, 12:2143–2152
 86. Rastelli E., Corinaldesi C., Dell'Anno A., Amaro T., Queirós A.M., Widdicombe S., Danovaro R. (2015) Impact of CO₂ leakage from sub-seabed carbon dioxide capture and storage (CCS) reservoirs on benthic virus–prokaryote interactions and functions. *Frontiers in Microbiology*, 6:935 doi:10.3389/fmicb.2015.00935
 87. O'dowd C., Ceburnis D., Ovadnevaite J., Bialek J., Stengel D.B., Zacharias M., Nitschke U., Connan S., Rinaldi M., Fuzzi, S., Decesari, S., Facchini M.C, Marullo S., Santoleri R., Dell'Anno A., Corinaldesi C., Tangherlini M., Danovaro R. (2015) Connecting marine productivity to sea-spray via nanoscale biological processes: Phytoplankton Dance or Death Disco?. *Scientific Reports*, 5:14883 doi: 10.1038/srep14883
 88. Carugati L., Corinaldesi C., Dell'Anno A., Danovaro R. (2015) Metagenetic tools for the census of marine meiofaunal biodiversity: An overview. *Marine Genomics* 24:11–20
 89. Catarino D., Knutsen H., Veríssimo A., Olsen E., Jorde P.E., Menezes G., Sannæs H., Stanković D., Company J., Neat F., Danovaro R., Dell'Anno A., Rochowski B., Stefanni S. (2015) The Pillars of Hercules as a bathymetric barrier to gene-flow promoting isolation in a global deep-sea shark (*Centroscymnus coelolepis*). *Molecular Ecology*, 24:6061–6079

90. Dell'Anno A., Carugati L., Corinaldesi C., Riccioni G., Danovaro R. (2015) Unveiling the biodiversity of deep-sea nematodes through metabarcoding: are we ready to bypass the classical taxonomy? *PLoS ONE* 10:e0144928
91. Fonti V., Dell'Anno A., Beolchini F. (2016) Does bioleaching represent a biotechnological strategy for remediation of contaminated sediments?. *Science of the Total Environment*, 563–564:302–319
92. Danovaro R., Gambi C., Dell'Anno A., Corinaldesi C., Pusceddu A., Neves R.C, Kristensen R.M. (2016) The challenge of proving the existence of metazoan life in permanently anoxic deep-sea sediments. *BMC Biology*, 14:43 DOI 10.1186/s12915-016-0263-4
93. Tangherlini M., Dell'Anno A., Zeigler Allen L., Riccioni G., Corinaldesi C. (2016) Assessing viral taxonomic composition in benthic marine ecosystems: reliability and efficiency of different bioinformatic tools for viral metagenomic analyses. *Scientific Reports*, 6:28428 DOI: 10.1038/srep28428
94. Rastelli E., Dell'Anno A., Corinaldesi C., Middelboe M., Noble R.T., Danovaro R. (2016) Quantification of Viral and Prokaryotic Production Rates in Benthic Ecosystems: A Methods Comparison. *Frontiers in Microbiology*, 7:1501 doi: 10.3389/fmicb.2016.01501
95. Rastelli E., Corinaldesi C., Dell'Anno A., Amaro T., Greco S., Lo Martire M., Carugati L., Queiros A.M., Widdicombe S., Danovaro R. (2016) CO₂ leakage from carbon dioxide capture and storage (CCS) systems affects organic matter cycling in surface marine sediments. *Marine Environmental Research*, 122:158-168
96. Rastelli E., Corinaldesi C., Petani B., Dell'Anno A., Ciglenc̆ki I., Danovaro R. (2016) Enhanced viral activity and dark CO₂ fixation rates under oxygen depletion: the case study of the marine Lake Rogoznica. *Environmental Microbiology*, 18:4511-4522
97. Danovaro R., Molari M., Corinaldesi C., Dell'Anno A. (2016) Macroecological drivers of archaea and bacteria in benthic deep-sea ecosystems. *Science Advances*, 2:e1500961.
98. Danovaro R., Dell'Anno A., Corinaldesi C., Rastelli E., Cavicchioli R., Krupovic M., Noble R.T., Nunoura T., Prangishvili D. (2016) Virus-mediated archaeal hecatomb in the deep seafloor. *Science Advances*, 2:e1600492.
99. Aylagas E., Borja A., Tangherlini M., Dell'Anno A., Corinaldesi C., Michell C.T., Irigoien X., Danovaro R., Rodríguez-Ezpeleta N. (2017) A bacterial community-based index to assess the ecological status of estuarine and coastal environments. *Marine Pollution Bulletin*, 114: 679–688
100. Beolchini F., Fonti V., Özdemirođlus S., Akcil A. Dell'Anno A. (2017) Sulphur-oxidising bacteria isolated from deep caves improve the removal of arsenic from contaminated harbour sediments. *Chemistry and Ecology*, 33:103–113
101. Corinaldesi C., Barone G., Marcellini F., Dell'Anno A., Danovaro R. (2017) Marine microbial-derived molecules and their potential use in cosmeceutical and cosmetic products. *Marine Drugs*, 15:118 [IF 2016 = 3.503]
102. Mestre N.C., Rocha T.L., Canals M., Cardoso C., Danovaro R., Dell'Anno A., Gambi C., Regoli F., Sanchez-Vidal A., Bebianno M.J. (2017) Environmental hazard assessment of a marine mine

tailings deposit site and potential implications for deep-sea mining. *Environmental Pollution*, 228:169-178

103. Danovaro R., Corinaldesi C., Dell'Anno A., Snelgrove P.V.R. (2017) The deep-sea under global change. *Current Biology*, 27:R431–R510
104. Corinaldesi C., Tangherlini M., Dell'Anno A. (2017) From virus isolation to metagenome generation for investigating viral diversity in deep-sea sediments. *Scientific Reports*, 7:8355 doi:10.1038/s41598-017-08783-4
105. Gambi C., Corinaldesi C., Dell'Anno A., Pusceddu A., D'Onghia G., Covazzi-Harriague A., Danovaro R. (2017) Functional response to food limitation can reduce the impact of global change in the deep-sea benthos. *Global Ecology and Biogeography*, 26:1008–1021
106. Rastelli E., Corinaldesi C., Dell'Anno A., Lo Martire M., Greco S., Facchini M.C., Rinaldi M., O'Dowd C., Ceburnis D., Danovaro R. (2017) Transfer of labile organic matter and microbes from the ocean surface to the marine aerosol: an experimental approach. *Scientific Reports*, 7:11475 doi:10.1038/s41598-017-10563-z.
107. Rastelli E., Corinaldesi C., Dell'Anno A., Tangherlini M., Martorelli E., Ingrassia M. Chiocci F.L., Lo Martire M., Danovaro R. (2017) High potential for temperate viruses to drive carbon cycling in chemoautotrophy-dominated shallow-water hydrothermal vents. *Environmental Microbiology*, 19:4432–4446.
108. Danovaro R., Corinaldesi C., Dell'Anno A., Rastelli E. (2017) Potential impact of global climate change on benthic deep-sea microbes. *FEMS Microbiology Letters*, 364
109. Corinaldesi C., Tangherlini M., Manea E., Dell'Anno A. (2018) Extracellular DNA as a genetic recorder of microbial diversity in benthic deep-sea ecosystems. *Scientific Reports*, 8:1839 doi: 10.1038/s41598-018-20302-7
110. Danovaro R., Nepote E., Lo Martire M., Ciotti C., De Grandis G., Corinaldesi C., Carugati L., Cerrano C., Pica D., Di Camillo C.G., Dell'Anno A. (2018) Limited impact of beach nourishment on macrofaunal recruitment/settlement in a site of community interest in coastal area of the Adriatic Sea (Mediterranean Sea). *Marine Pollution Bulletin*, 128:259-266
111. Dell'Anno F., Sansone C., Ianora A., Dell'Anno A. (2018) Biosurfactant-induced remediation of contaminated marine sediments: Current knowledge and future perspectives. *Marine Environmental Research*, 137:196-205