Dr. MARIA PAPADATOU

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I am a microbial ecologist/oceanographer with expertise upon the application of molecular tools to decipher the environmental microbial diversity and activity. My research interests lie on microbe-driven carbon and nitrogen cycling, assessment of pesticides toxicity on soil microorganisms and the response of microbial fouling (biofouling) on antifouling applications.

Education

20/09/2016 – **23/11/2020**: Doctor of Philosophy (**PhD**) in **Environmental Microbiology**, University of Portsmouth, Portsmouth (*United Kingdom*). Thesis title: «Understanding marine biofilm formation on artificial and antifouling surfaces».

23/09/2011 – 27/06/2013: Erasmus Mundus Master of Science (MSc) in Marine Biodiversity and Conservation, Year 1: Ghent University, Ghent (*Belgium*), Year 2: University Pierre et Marie Curie (Paris VI); Villefranche-sur-Mer & Roscoff (*France*). Thesis title: «Bacterial diversity associated with anthropogenic particles and neuston in the surface layer of the East Atlantic Ocean» implemented at the Max Planck Institute for Marine Microbiology, Bremen (*Germany*).

01/09/2006 – **21/06/2012**: Bachelor of Science (**BSc**) in **Marine Science**, University of the Aegean, Lesvos (*Greece*). Thesis title: «Examining the fungal concentration in recreational beach sand before and after precipitation».

Professional Experience

01/05/2022 - present: Postdoctoral Fellow in Environmental Microbiology, Department of Biochemistry and Biotechnology, University of Thessaly (*Greece*). Project: «ReASSESS - Revolutionizing the assessment of the toxicity of pesticides on soil microorganisms: from single species tests to ecosystem approaches».

01/12/2020 – **31/03/2022**: Remote work including PhD manuscripts preparation (1st paper submitted in May 2021, 2nd in January 2022), analysis of data collected upon PhD completion, and Postdoctoral Fellowship proposal preparation (*Simons PF in Marine Microbial Ecology*/ May 2021, *MSCA* PF/ October 2021).

14/02/2019 - 20/12/2020: UKVI Invigilator Staff, British Council, Portsmouth (*UK*).

01/11/2016 - 30/03/2020: Research Assistant, School of Biological Sciences, University of Portsmouth (UK). As part of the PhD Fellowship, I had weekly contribution as a teaching and demonstrator assistant in practical laboratories coordinated by academic staff at the Department of Biological Sciences.

01/10/2016 – **30/09/2019**: Open Day Science Demonstrator, University of Portsmouth (*UK*). Scientific demonstration of my research work to perspective undergraduate students and their parents in the research laboratory facilities.

03/11/2014 – 15/02/2016: Direct Dialogue Fundraiser, WWF Greece, Athens (*Greece*).

Professional Activity

2022 – present: Reviewer for FEMS Microbiology Ecology journal (*Oxford University Press*).

2019 – present: Reviewer for Biofouling journal (*Taylor & Francis*).

2018 – **2020**: Founder and Coordinator of the Postgraduate Biological Society (PBioSoc), University of Portsmouth (*UK*).

Research Experience - Training

06/08/2022 - 29/08/2022: RV *Maria S. Merian* Expedition MSM110 from Reykjavik (Iceland) to East Greenland and back. Project title: «ECOTIP: ECOlogical TIPping cascades in the Arctic Seas».

01/04/2022 - 30/06/2022: Visiting Researcher/Grantee of the FEMS Research & Training Grant, Computer Science Department, University of Tübingen (*Germany*). Project: «Exploring and optimising bioinformatics tools of RNA-Seq data analysis for providing robust insights into active marine microbial communities on antifouling coatings».

03/2014: 1st African Discovery Camp (RNGO) of the Regional Graduate Network in Oceanography, Postgraduate Research Training on Microbial and Geochemical Oceanography in Upwelling Ecosystems. RV *Mirabilis* Expedition MOM/RGNO-0314 & Sam Nujoma Marine and Coastal Resources Research Centre of the University of Namibia (*Namibia*). Project title: «Physiological study on the growth and nitrate uptake of *Thiomargarita*».

07/2013: Summer Course on Environmental Life Sciences Engineering. Singapore Centre on Environmental Life Sciences Engineering (SCELSE) (*Singapore*).

10-12/2012: European Universities & Research Onboard *Polarstern* in the Atlantic (EUROPA): Pelagic Biodiversity of the Atlantic Ocean. RV *Polarstern* Expedition ANT-XXIX/1, Bremerhaven (*Germany*) to Cape Town (*South Africa*). Project title: «Biodiversity and activity of microbial biofilms in niches in the ocean».

07/2012: Erasmus Mundus Master of Science (EMBC) Summer School. Marine Biology Station Piran (*Slovenia*). Project title: «Assessing marine litter and microplastics along the coast of Slovenia».

04-06/2012: EMBC Research Internship. Laboratory of Environmental Toxicology and Aquatic Ecology, Ghent University (*Belgium*). Project title: «Examining the effect of CU in mussels from the Adriatic and Baltic Seas».

03–08/2011: Undergraduate Erasmus Placement. Microbial Oceanography Laboratory, Observatoire Océanologique de Banyuls sur mer (*France*). Project title: «Screening a subset of a large collection of marine bacteria for proteorhodopsin (PR) coding genes».

Publications

Google scholar: 378 citations, h-index = 3; Scopus: 281 citations, h-index = 2; Web of Science: 259 citations, h-index = 3

Published/ Peer-reviewed

- **Papadatou, M.**, Knight, M., Salta, M. (2022). High-throughput method development for *in situ* quantification of aquatic phototrophic biofilms. *Biofouling*, 6:1-15. https://doi.org/10.1080/08927014.2022.2094259.
- **Papadatou, M.**, Robson, S.C., Dobretsov, S., Watts, J.E.M., Longyear, J., Salta, M. (2021). Marine biofilms on different fouling control coating types reveal differences in microbial community composition and abundance. *MicrobiologyOpen*, 10: e1231. https://doi.org/10.1002/mbo3.1231.
- Laglbauer, B.J.L., Franco-Santos, R.M., Andreu-Cazenave, M., Brunelli, L., **Papadatou, M.**, Palatinus, A., Grego, M., Deprez, T. (2014). Macrodebris and microplastics from beaches in Slovenia. *Marine Pollution Bulletin*, 89(1-2): 356-366. https://doi.org/10.1016/j.marpolbul.2014.09.036.
- Courties, A., Riedel, T., Jarek, M., **Papadatou, M.**, Intertaglia, L., Lebaron, P., Suzuki, M.T. (2014). Draft genome sequence of the gammaproteobacterial strain MOLA455, a representative of a ubiquitous proteorhodopsin-producing group in the ocean. *Genome Announcements*, 2(1): e01203-13. https://doi.org/10.1128/genomeA.01203-13.

Under review/ In preparation

- **Papadatou, M.**, Robson, S.C., Gautam, A., Huson, D., Salta, M. Comparison of marine biofilm taxonomic profiles between metatranscriptomic and amplicon sequencing analyses. Status: In preparation for *FEMS Microbiology Ecology*.
- **Papadatou, M.** Biofilms on marine antifouling coatings: specificity and microbially-induced effects. Status: In preparation for *Environmental Microbiology*.
- **Papadatou, M.**, Robson, S.C., Dobretsov, S., Salta, M. Biofilm transcriptomes on marine antifouling coatings are hot spots of metal and antibiotic resistance genes. Status: In preparation for *Nature Microbiology*.

Conferences

Papadatou, M., Robson, S.C, Dobretsov, S., Watts, J.E.M., Longyear, J., Salta, M. The effect of fouling control coating type on the development of marine biofilm communities in the Solent UK. <u>Paper</u> presented at: 9th Conference of MIKROBIOKOSMOS "Beneficial microbes at the heart of Mikrobiokosmos". 2021 December 16-18; Athens, Greece. https://www.mikrobiokosmos2021.org/articlefiles/MIKROBIOKOSMOS_PROGRAM_2021_low_20_12.pdf

Papadatou, M., Robson, S., Watts, J., Dobretsov, S., Salta, M. Functionality and composition of marine biofilms on antifouling coatings. <u>Paper</u> presented at: Biofilms 9 conference. 2020 September 29-1 October; Karlsruhe, Germany. https://doi.org/10.5194/biofilms9-117

Papadatou, M., Robson, S., Watts, J., Dobretsov, S., Salta M. Functionality of marine biofilm communities isolated from antifouling coatings. <u>Paper</u> presented at: 6th European Congress on Biofilms "Eurobiofilms 2019". 2019 September 3-6; Glasgow, Scotland, UK.

Papadatou, M., Harder, J. Bacterial diversity associated with anthropogenic particles and neuston in the surface layer of the East Atlantic Ocean. <u>Paper</u> presented at: In the Wake of Plastics Conference. 2015 October 13-15; Venice, Italy.

Papadatou, M., Harder, J. Bacterial diversity associated with anthropogenic particles and neuston in the surface layer of the East Atlantic Ocean. <u>Paper</u> presented at: 11th Panhellenic Symposium of Oceanography & Fisheries "Aquatic Horizons: Challenges & Perspectives". 2015 May 13-17; Mytilene, Lesvos Island, Greece. https://okeanos-dspace.hcmr.gr/bitstream/handle/123456789/2604/PanhellSympOceanFish11(561-564)2015..pdf?sequence=1.

Papadatou, M., Laglbauer, B.J.L., Franco-Santos, R.M., Andreu-Cazenave, M., Brunelli, L., Palatinus, A., Grego, M., Deprez, T. Microplastics from beaches in Slovenia. <u>Poster</u> presented at: 2015 Welch Symposium "Plastic GYRE: Artists, Scientists and Activists Respond". 2015 March 26-27; Atlanta, Georgia, USA.

Prizes & Awards	Budget
10/2022 : FEMS Industry Placement Grant, <i>FEMS-2022-1848</i> . Federation of European Microbiological Societies (FEMS).	<u>€4,500</u>
03/2022 : HORIZON-MSCA-2021-PF-01 (HORIZON Marie Skłodowska-Curie Actions Postdoctoral Fellowships 2021), <i>MIMEPOC</i> : <i>MIcrobially MEdiated Particulate Organic Carbon flux - 101064476</i> . European Commission.	<u>€199,440.96</u>
09/2020: FEMS Research and Training Grant, FEMS-GO-2020-217. FEMS.	<u>€4,000</u>
09/2020 : Travel Grant for Course attendance, <i>GA002491</i> . Microbiology Society (<i>United Kingdom</i>).	<u>£473</u>
05/2020: FEMS Meeting Attendance Grant, FEMS-GO-2020-083. FEMS.	<u>€500</u>
02/2020: Junior Scientist Conference Grant. Genetics Society (United Kingdom).	<u>£750</u>
01/2014 : Course Grant, Microbial and Geochemical Oceanography in Upwelling Ecosystems. Regional Research Graduate Network in Oceanography (RNGO).	<u>NAD</u> \$19,580
05/2013 : Course Grant, International summer course in Environmental Life Sciences Engineering. Singapore Centre on Environmental Life Sciences Engineering (SCELSE) (<i>Singapore</i>).	<u>SGD</u> \$1,600
<u>Scholarships</u>	
2016 – 2020 : Postgraduate PhD Research Studentship (maintenance & tuition fees) & PhD Studentship (extension). University of Portsmouth (UK).	£43,638 £3,752
01/2019: Science Faculty PGR Placement Scheme. University of Portsmouth (UK).	£500
2013: EMBC Excellence & Mobility Grants. Ghent University (Belgium).	€2,700
2011: Erasmus Student Mobility Placement. University of the Aegean (Greece).	€3,600
2007 – 2009 : Annual BSc Excellence awards. Greek State Scholarships Foundation (IKY) (<i>Greece</i>).	<u>€3000</u>

Supervising & Mentoring

2016 – **2020**: Demonstrator at the Course practicals of Environmental Microbiology and General Biology. University of Portsmouth (UK).

2016 - 2019: Joint supervision and mentoring of three Bachelor students. University of Portsmouth (UK).

2016 - 2017: Joint supervision of Master student Mollie Knight for her thesis project «Quantification of spatial and temporal variability in marine biofilms in the Solent, UK». University of Portsmouth (*UK*).

Workshops

09–16/12/2020: "Introduction to Python for Biologists". Edinburgh Genomics, The University of Edinburgh.

05/10/2020: CZI-CABANA Microbiome Bioinformatics with QIIME 2. QIIME 2 Team.

26/07/2019: Correlation and Regression in *R*. DataCamp.

12/08/2019: RNA-Seq Differential Expression Analysis with Bioconductor in *R*. DataCamp.

27–31/05/2019: "Metagenomics, metatranscriptomics, and multi'omics for microbial community studies". Physalia-courses, Free University of Berlin (*Germany*).

03/09/2019: Bioinformatics workshop. Eurobiofilms 2019 conference.

2017: Graduate Students' Professional Development (GPROF). Apex Foundation Pathway (*United Kingdom*).

2012: University Curriculum in Marine Data Management. International Oceanographic Data and Information Exchange (IODE) & UNESCO (*Belgium*).

Memberships

2019 – **present**: Member of Microbiology Society (*London GB*)

2019 – present: Member of Society for Applied Microbiology (*London GB*)

2020 – 2021: Member of International Society for Microbial Ecology (ISME) (Arnhem NL)

2019 – 2021: Member of Genetics Society (*London GB*)

2019 – 2021: Member of International Biodeterioration Biodegradation Society (IBBS) (Manchester GB)

Professional Licenses & Certifications

09/09/2021: Registration and Licensing to practice Geotechnical Profession of Ichthyologist (*A831/09-09-2021*). Hellenic Geotechnical Chamber (GEOTEE) (*Greece*).

13/06/2014: Lifeguard License. Hellenic Lifesaving School (PASHNA) (Greece).

13/09/2011: Speed Boat Operators' License. Port Authority (*Greece*).

2010: First Aid Responder (CPR inclusive). EMP Medic First Aid.

2009: Rescue Diver, EFR-Primary Care (CPR), Sec Care (1st aid). Professional Association of Diving Instructors (PADI).

26/09/2006: Driving license (A and B Categories). Hellenic Ministry of Transport and Communications.