

Curriculum Vitae
Evangelia Gontikaki

Honorary Research Fellow
University of Aberdeen • Biological Sciences

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Research interests

- Benthic biogeochemistry and microbial ecology of coastal and deep-sea ecosystems
- Biodegradation of crude oil in marine environments – Oil spill remediation
- Link between terrestrial and marine carbon cycles
- Biostatistics - Bioinformatics

Education

- 2006-2010** **University of Aberdeen, Oceanlab/Scottish Association for Marine Science**
PhD in Biological Sciences
Thesis title: “Carbon cycling in continental slope sediments: the role of benthic communities”. Supervisors: Prof. Ursula Witte (UoA), Dr. Bhavani Narayanaswamy (SAMS).
Marie Curie Early Stage Training (10/06-05/08, UoA; 06/08-06/09, SAMS).
- 2002-2003** **University of Southampton, School of Ocean and Earth Science**
MSc in Oceanography
Dissertation title: “Asexual reproduction of Aurelia aurita polyps (Cnidaria: Scyphozoa)”
- 1997-2002** **Aristotle University of Thessaloniki, School of Biology**
BSc (Hons.) in Biology (2:1)

Work experience

- 05/10-05/17** **University of Aberdeen, Oceanlab**
Research Fellow (Marine Alliance for Science and Technology Scotland)
[On maternity leave: 08/06/12 – 15/10/12 and 20/11/15 - 20/08/16]
- 02/10-04/10** **University of Aberdeen, Oceanlab**
Research Assistant (Leverhulme Trust)
- 06/05-12/05** **University of Athens, Department of Zoology-Marine Biology**
Research Assistant – Sorting and identification of benthic macrofauna.
- 11/03-05/04** **Royal Netherlands Institute for Sea Research (NIOZ), Department of Ecology and Evolution**
Research Assistant - Larval ecology and evolutionary adaptation.
- 07/01-09/01** **Hellenic Center for Marine Research (HCMR), Institute of Oceanography**
Undergraduate Placement - Bivalve systematics

Grants/Awards

NERC Oil & Gas catalyst fund (NE/L00819X/1; 2014-2015; £98,871) “The natural capacity for oil degradation in marine environments: towards developing DNA-based biosensors for monitoring low-level oil pollution” (Co-I).

NERC UK Oil & Gas CDT studentship (2014-2018; estimated value £80,000) “Using the intrinsic recovery capabilities of deep-sea and polar ecosystems to reduce the impact of accidental oil release” (Co-supervisor, Amy Bode PhD candidate).

NERC CASE studentship (2014-2018; £82,680) “Site-specific DNA- and RNA- based biomarkers to monitor low-level oil pollution and test the effectiveness of bioremediation approaches” (Co-supervisor, Lloyd Potts PhD candidate).

MASTS MBF grant (2016-2017; £2000) “Photochemical and microbial degradation of particulate terrigenous organic matter in intertidal sediments” (Personal grant).

Hellenic Foundation for Research and Innovation (ΕΛΙΔΕΚ), 1st call for Postdoctoral Researchers (2018-2021; €155,000) “Determination of the self-healing capabilities of the Eastern Mediterranean Sea to accidental deep-sea oil releases” (PI), Host institution: School of Environmental Engineering, Technical University of Crete

Awards & Distinctions

European Commission Seal of Excellence for the project proposal 744158 “MARZYMES-Marine enzymes in support of a sustainable cellulosic biofuels industry”, call H2020-MSCA-IF-2016 by Evangelia Gontikai and the University of Aberdeen, U.K (score 86.4%).

European Commission Seal of Excellence for the project proposal 798548 “HEALMED – Determination of the self-healing capabilities of the Eastern Mediterranean Sea from accidental deep-sea oil releases”, call H2020-MSCA-IF-2017 by Evangelia Gontikai and the Technical University of Crete, Greece (score: 90.4%).

Peer-reviewed publications

Perez-Calderon LJ*, **Gontikaki E***, Potts LD, Shaw S, Gallego A, Anderson JA, Witte U (2018) Pressure and temperature effects on deep-sea hydrocarbon-degrading microbial communities in subarctic sediments. *MicrobiologyOpen* 2018;e768 (*equal contribution authors)

Perez-Calderon LJ, Potts LD, **Gontikaki E**, Gubry-Rangin C, Cornulier T, Gallego A, Anderson JA, Witte U. Bacterial community response in deep Faroe-Shetland Channel sediments following hydrocarbon entrainment with and without dispersant application. *Frontiers in Marine Science* 5: article 159.

Gontikaki E, Anderson JA, Witte U. Hydrocarbon-degrading bacteria in deep-water subarctic sediments (Faroe-Shetland Channel). *Journal of Applied Microbiology* 125, 1040—1053

Potts LD, Perez Calderon LJ, **Gontikaki E**, Keith L, Gubry-Rangin C, Anderson JA, Witte U (2018). Effect of spatial origin and hydrocarbon composition on bacterial consortia community structure and hydrocarbon biodegradation rates. *FEMS Microbiology Ecology* 94: fyy127.

Ferguson R, **Gontikaki E**, Anderson JA, Witte U (2017). The variable influence of dispersant on degradation of oil hydrocarbons in subarctic deep-sea sediments at low temperatures (0-5°C). *Scientific Reports* 7:2253; doi:10.1038/s41598-017-02475-9

Gontikaki E, Thornton B, Cornulier T, Witte U (2015). Occurrence of priming in the degradation of lignocellulose in marine sediments, *PLoS ONE* 10(12): e0143917.

Gontikaki E, Thornton B, Huvenne VIA, Witte U (2013). Negative Priming Effect on Organic Matter Mineralisation in NE Atlantic Slope Sediments. *PLoS ONE* 8(6): e67722.

Serpetti N, **Gontikaki E**, Narayanaswamy BE, Witte U (2013). Macrofaunal community inside and outside of the Darwin Mounds Special Area of Conservation, NE Atlantic. *Biogeosciences*, 10, 3705–3714.

Gontikaki E, Polymenakou PN, Thornton B, Narayanaswamy BE, Black K, Tselepides A, Witte U (2012). Microbial response to organic matter enrichment in the oligotrophic Levantine Basin (Eastern Mediterranean). *Geomicrobiology Journal* 29: 648-655.

Gontikaki E, van Oevelen D, Soetaert K, Witte U (2011). Food web flows through a sub-arctic deep-sea benthic community: modelling an isotope tracer experiment. *Progress in Oceanography* 91: 245-259.

Gontikaki E, Mayor DJ, Thornton B, Black K, Witte U (2011). Processing of ¹³C-labelled algae by a bathyal community at sub-zero temperatures. *Marine Ecology Progress Series* 421: 39-50.

Gontikaki E, DJ Mayor, BE Narayanaswamy, U Witte (2011). Feeding strategies of deep-sea sub-Arctic macrofauna of the Faroe-Shetland Channel: combining natural stable isotopes and labeling techniques. *Deep-Sea Research I* 58:160-172

Gontikaki E, Antoniadou C & Chintiroglou CC (2003). “Population Structure of *Cerastoderma glaucum* and *Abra ovata* in Vouliagmeni Lagoon (Attiki). *Journal of the Marine Biological Association of the U.K.*, 83: 1095-1097.

Manuscripts in preparation

Gontikaki E, Witte U. Mechanisms promoting the priming of terrestrial organic matter degradation in intertidal sediments. In preparation for submission to *Frontiers in Earth Science*.

Teaching/Supervisory responsibilities

Undergraduate courses

2012-present Teaching assistant in Benthic Ecology (3rd year undergraduates)
2012 Teaching assistant in BUGS course (Biology for undergraduates, 1st year)
2007 Demonstrator of the BSc course subject “Ocean Biology” (University of Aberdeen)

PhD Students

2014-2018 Amy Bode (co-supervisor)
2014-2018 Lloyd Potts (co-supervisor)

MSc, Honours and visiting students

2016 Kathrin Vossen, Internship
2014 Raymont Awortu, MSc thesis
2014 Christina Nicolova, MSc Thesis
2013 Pablo Rodriguez Ros, ERASMUS Placement
2013 Isabel Seguro, volunteer
2011 Melanie Brandt, LEONARDO DA VINCI Programm

Training

- Daniel Jouvance-UPMC-UCY International School in Marine Biology, Cyprus (6 days) – October 2017
- RNA Sequencing workshop (CGEBM, UoA) – January 2017
- Quality control of next generation sequencing reads (CGEBM, UoA) – November 2016
- Maxwell Compute Cluster and Unix: basic and advanced workshops (CGEBM, UoA) – October 2016
- Analysing next generation 16S rRNA gene sequencing data (Illumina) using Mothur (CGEBM, UoA) (2 days) – January 2015

- Highland Statistics workshop in Mixed effects Modelling techniques (3 days) - February 2010
- Marie Curie Workshop in Multivariate statistics (4 days) – June 2008
- Marie Curie Workshop in Univariate statistics (4 days) - June 2006
- Introduction to More Advanced Statistical Methods (5 days) – January 2008
- Introduction to R (3 days) – January 2008
- Beginners statistics course by ASPIRE (3 days) – January 2007
- Summer course in Aquatic Microbial and Molecular Ecology (3 weeks) - August 2007 (SOAS - International School for Aquatic sciences, Denmark)

Conference contributions

- 6th International Symposium on Applied Microbiology and Molecular Biology in Oil Systems, 2017, San Diego, California, Oral and Poster presentation.
- 14th Deep Sea Biology Symposium, September 2015, Aveiro, Portugal, Poster presentation
- 6th National Conference of “Microbiokosmos”, May 2015, Athens, Greece, Poster presentation
- MASTS Annual Science meeting, September 2014, Oral presentation
- Gulf of Mexico Oil Spill & Ecosystem Science Conference 2014, Mobile, AL, USA
- EGU, Vienna, April 2013, Oral presentation
- 2nd World Conference on Marine Biodiversity, Aberdeen, September 2011, Poster presentation
- Deep-Sea Research Symposium, Reykjavik, June 2010, Oral presentation
- HERMIONE meeting, Malta, April 2010, Poster presentation
- HERMES meeting, Faro, March 2009. Oral presentation.
- ASLO conference, Nice, January 2009. Oral presentation.
- 1st National Conference of “Microbiokosmos”, Athens, Greece, December 2008. Poster presentation.
- Challenger Society conference, Bangor, September 2008. Poster presentation.
- 9th ICZEGAR, Thessaloniki, Greece, 2002. Oral presentation.

Professional activities

• *Conference organisation*

Co-convener of session “Biogeochemistry of coastal seas and continental shelves, with a special focus on Sedimentary Carbon in the Coastal Ocean (including Vladimir Ivanovich Vernadsky Medal Lecture)” at the EGU General Assembly (Vienna, 2016 and 2017).

Co-convener and chair of the session “Diversity and Function of Deep-Sea Ecosystems” at the 2nd World Conference on Marine Biodiversity (Aberdeen, 2011)

• *Reviewing activities*

Reviewer for the following peer-reviewed journals: Deep-Sea Research I, Science of the Total Environment, Polar Biology, Biogeosciences, Scientific Reports

• *Professional committees/memberships*

Member of the steering group of the MASTS Marine Biogeochemistry Forum (2014-2016).

Member of the International Society for Microbial Ecology (ISME).

• *Outreach activities:*

Organisation of primary school students one-day visits to Oceanlab with theoretical and practical sessions. Volunteer for guided tours of Oceanlab for interested public. Communication of research outcomes to mass media (e.g. <http://www.bbc.com/news/uk-scotland-north-east-orkney-shetland-40027207>).

Recommendations

1. Prof. Ursula Witte

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2. Prof. Frithjof Kuepper

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