

Tzoraki Ourania

School of the Environment
Marine Sciences Department
University of the Aegean
University Hill, 81100
Mytilene, Lesvos, Greece
+30 22510 36840, +30 69921 44693
rania.tzoraki@aegean.gr
<http://water-museum.aegean.gr/>



Since 2013 Ourania Tzoraki is faculty member of the Coastal Morphodynamics - Coastal Management and Marine Geology Group of the Department of Marine Sciences (DMR) of the University of the Aegean. She is coordinating or involved as main researcher in national and international research projects related to environmental modelling, coastal and water resources management. She is author of more than 150 publications in journals, books and conference proceedings. She has teaching and supervising experience at the University of the Aegean (GR) (since 2013), Technical University of Crete (GR) (11 yrs), Cyprus University of Technology (CY) (3 yrs), Leibniz Universität Hannover (DE), University of Parthenope (IT) and Concepcion University (CH).

Her research interests include:

- (a) Hydrology and biogeochemistry of Intermittent and Ephemeral Streams (IRES) at river basin scale, i.e. flash floods, nutrient, sediment transport, heavy metal pollution and Climate Change impact;
- (b) Operational hydrology, i.e. flood alert system development for IRES, Flow Image Velocimetry and riparian monitoring using UAVs;
- (c) Coastal Zone Management (Coastal Aquifers Recharge with treated wastewater, beaches resilience, marinas and ports environmental management);

Academic Background

Post-Doc Training IIHR-Hydrosience and Engineering, University of IOWA, USA,
Training concerns Large Scale Particle Image Velocimetry technology

PhD in Environmental Engineering, Technical University of Crete, thesis covered
modeling of hydrological and geochemical processes of temporary
rivers

MSc in Environmental Engineering, Technical University of Crete, thesis covered
membrane technology to recover phenols from olive oil mill effluents

BSc in Mineral Resources Engineering, Technical University
of Crete

Career

- 10/2020 up today **Associate Professor**, Marine Sciences Department,
University of the Aegean, GR
- 07/2013 to 09/2020 Assistant Professor, Marine Sciences Department,
University of the Aegean, GR
- 08/2015-10/2015 Visiting Professor, Civil Engineering Department, Leibniz
University of Hannover, DE
- 09/2010 - 06/2013 Adjunct Professor, Civil Engineering and Geodetics Faculty,
Cyprus University of Technology (CUT), CY

Resent Research Projects

- 12/2020-03/2023 Partner, AEGIS+ risks, national funds ‘Regional Excellence’
- 01/2020-12/2021 Partner, Coastal Observatory of Kalloni, national funds
- 05/2021-04/2023 Partner, BEACHTECH, INTERREG Greece-Cyprus, Work
Package (WP) Hydrological models
- 03/2018-02/2020 Coordinator, Science for Refugee Scientists in Aegean
Archipelago (SCIREA), European Union HORIZON project,
Grant Agreement ID: 786332
- 11/2018-12/2020 Partner, Bridge for Researchers in Danger Going to Europe –
Step II (BRIDGE II), European Union HORIZON project,
Grant Agreement ID: 824601
- 02/2016-02/2020 Management Committee Member, COST Action 15113 -
[Science and Management of Intermittent Rivers and Ephemeral
Streams](#) (SMIRES)
- 01/2018-10/2020 Partner, INTERREG Greece-Cyprus, Web service of
environmental Risk-Floods (ERMIS-F), Work Package (WP)
Hydrological models

Teaching Experience

09/2013 to date **Courses** in Marine Sciences Department, University of the Aegean

Undergraduate level: Integrated Coastal Zone Management, Hydrology, Environmental Science, Environmental Impact Assessment: Theory and Practice, Coastal Engineering, Coastal and Transitional Systems, Geo-environment and Oceanography

Postgraduate level: Integrated Coastal Zone Management, Coastal Geohazards

2018-2021 lectures ‘Water Quality’, ‘Floods and Droughts’ in Natural Hazards and Natural Disasters Prevention MSc, Department of Geography

2018-2021 lectures ‘Freshwater Resources: Natural systems, Human Impact and Conservation’, in Environmental Sciences, Policy and Management (MESPOM) Erasmus Mundus Joint Master Degree

11/2018 lectures ‘Freshwater Resources: Natural systems, Human Impact and Conservation’, PhD program Fenomeni e Rischi Ambientali (FERIA), University of Parthenope, Naples, Italy

Awards

Outstanding Poster Presentation Award, ISFF, Casablanca, Morocco, 2018

Award as PI for the project Envfriendly that received the ‘**Best of the Best**’ award by the European Commission, 2009

Poster award in the 3rd SoilCritZone Workshop, Chania, Crete, Greece, 2008

Fellowships

IKY fellowship for academic mobility to Germany (2020)

DAAD fellowship for academic mobility to Germany (2015)

Scholarship for MSc and PhD studies

Leonardo da Vinci Scholarship during the BSc studies (1998)

Recent Publications

Fully Refereed Journals

JP1 Koutsovili E., Tzoraki O., Theodossiou, N., Gaganis P., 2021. Numerical assessment of climate change Impact on the hydrological regime of a small Mediterranean river, Lesvos Island, Greece, Acta hort regiotec, 24, 2021(1): 28–48, DOI: 10.2478/ahr-2021-0022

JP2 Koutalakis, P., Tzoraki, O., Prazioutis, G., Gkiatas, G., Zaimis, G., 2021. Can Drones Map Earth Cracks? Landslide Measurements in North Greece Using

- UAV Photogrammetry for Nature-Based Solutions. Sustainability, 13, DOI:[10.3390/su13094697](https://doi.org/10.3390/su13094697)
- JP3 Banegas A., Montes I.-Y., **Tzoraki O.**, et al. 2021. Hydrological, environmental and taxonomical heterogeneity during the transition from drying to flowing conditions in a Mediterranean intermittent river. *Biology* 10, 316. <https://doi.org/10.3390/biology10040316>
- JP4 Čulibrk A., Tzoraki O., Portman M. 2021. Adaptation of an evaluation freshwater framework to a coastal system: The case of Kamari, Santorini. *Journal of Environmental Management*, 288, 112406, <https://doi.org/10.1016/j.jenvman.2021.112406>
- JP5 Koutalakis P., **Tzoraki O.**, and Zaimis G., 2021. Software utilized for image-based velocimetry methods focused on water resources. *Desalination and Water Treatment*, 218, 1-17, DOI: <https://doi.org/10.5004/dwt.2021.26923>
- JP6 Nabih S., **Tzoraki O.**, Zanis P., Tsikerdekis T., Akritidis D., Kontogeorgos I., Benaabidate L. Alteration of the Ecohydrological Status of the Intermittent Flow Rivers and Ephemeral Streams due to the Climate Change Impact (Case Study: Tsiknias River). *Hydrology*. 2021; 8(1):43. <https://doi.org/10.3390/hydrology8010043>
- JP7 Efstratiou A.-M., Tzoraki O., 2021 Coronavirus survival on beach sand: Sun vs COVID-19, Volume 167, <https://doi.org/10.1016/j.marpolbul.2021.112270>
- JP8 Trambly Y., Rutkowska A., Sauquet E., et al., 2021. Trends in flow intermittence for European Rivers. *Hydrological Sciences Journal*. 66 (1), 37-49 DOI: 10.1080/02626667.2020.1849708
- JP9 Koutalakis P., **Tzoraki O.**, Gkiatas G and Zaimis G., 2020. Using UAV to Capture and Record Torrent Bed and Banks, Flood Debris, and Riparian Areas. *Drones*, MDPI, 4(4), 77
- JP10 Bouadila A., **Tzoraki O.** & Benaabidate L., 2020, Hydrological modeling of three rivers under Mediterranean climate in Chile, Greece, and Morocco: study of high flow trends by indicator calculation. *Arabian Journal of Geosciences*, volume 13, Article number: 1057
- JP11 Troudi, N., Hamzaoui, F., Zammouri, M. **Tzoraki, O.** 2020, Assessment of groundwater quality for drinking purpose with special emphasis on salinity and nitrate contamination in the shallow aquifer of Guenniche (Northern Tunisia). *Environmental Monitoring and Assessment Journal*. 192(10)
- JP12 **Tzoraki, O.** 2020. Operating Small Hydropower Plants in Greece under Intermittent Flow Uncertainty: The Case of Tsiknias River (Lesvos). *Challenges*, 11, 17.

Language skills

English, excellent

German, excellent

French, elementary

Greek, Native Speaker