

## PERSONAL INFORMATION

## Stefanos Stefanidis



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<https://fri.gr/en/team-members/dr-stefanos-stefanidis/>

Sex Male | Date of birth 18/06/1986 | Nationality Greek

## WORK EXPERIENCE

Oct 2023- today

**Associate Researcher (Grade C)**

Forest Research Institute, Hellenic Agricultural Organization – DIMITRA, Greece

▪ Scientific field: Forest hydrology

Jan 2020 – Apr 2021

**Post-Doctoral Researcher**

Faculty of Agriculture Forestry and Natural Environment, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece

Topic: Assessment of soil erosion in mountainous watersheds using new technologies under climate change.

Nov 2012 – Sep 2023

**Senior Researcher / Project Management**

Omikron Environmental Consultants S.A, Greece

Responsibilities: Senior researcher/ Project Manager on Innovation projects (co-)funded by European, Greek, and Interregional funding schemes dealing with natural hazards and environmental monitoring.

Oct 2011 – Dec 2013

**Research Assistant**

Faculty of Agriculture Forestry and Natural Environment, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece

Responsibilities: Torrential hazard assessment, erosion, and hydrological modeling on several projects of the Laboratory of Mountainous Water Management and Control at the Aristotle University of Thessaloniki.

## EDUCATION AND TRAINING

Jun 2012 – May 2018

**Doctor of Philosophy (PhD)**

Faculty of Agriculture Forestry and Natural Environment, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece

PhD thesis: **Hydronomy of mountainous catchments under climate change in Central Pindus**

Jun 2012 – May 2018

**Master of Science (MSc)**

Faculty of Agriculture Forestry and Natural Environment, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece

MSc thesis: **Natural and manmade torrential environment of watersheds and stream beds of Kassandra (Chalkidiki) and its effect on flood genesis**

Sep 2004 – Jun 2009

**Bachelor (BSc) – Integrated Master**

Faculty of Agriculture Forestry and Natural Environment, School of Forestry and Natural Environment, Aristotle University of Thessaloniki, Greece

BSc thesis: **Effectiveness of post-fire erosion and flood mitigation works in the peri-urban forest of Thessaloniki 12 years after the wildfire**

PERSONAL SKILLS

Mother tongue(s) Greek

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
English	C2	C2	C2	C2	C2
Replace with name of language certificate. Enter level if known.					

Digital competence ArcGIS, QGIS, Hec-HMS, XLStat, Expert Choice, AutoCAD

ADDITIONAL INFORMATION

- Amanatidis, P., **Stefanidis, S.**, Ioannou, K., Proutsos, N., Karmiris, I., Stefanidis, P., & Karampatzakis, D. (2026). Transferable deep learning models for the estimation of daily potential evapotranspiration across altitudinal forest gradients in the Mediterranean. *Acta Geophysica*, 74(2), 104.
- Proutsos, N. D., Tigkas, D., & **Stefanidis, S. P.** (2026). Impact of hydrometeorological factors and extreme events on black pine forests growth in the Mediterranean. *Acta Geophysica*, 74(1), 31. Curriculum Vitae
- Ioannou, K., **Stefanidis, S.**, & Karmiris, I. (2026). A Low-Cost IoT Sensor for Streamflow Monitoring: A Proof-of-Concept Using Commercial off the Shelf (COTS) Hardware. *Environmental and Earth Sciences Proceedings*, 40(1), 14.
- **Stefanidis, S.**, Ioannou, K., Proutsos, N., Karmiris, I., & Stefanidis, P. (2025). Comparative Analysis of Machine Learning Algorithms for Potential Evapotranspiration Estimation Using Limited Data at a High-Altitude Mediterranean Forest. *Atmosphere*, 16(7), 851.
- **Stefanidis, S. P.**, Proutsos, N. D., & Mallinis, G. (2025, May). Exploring Soil Conservation Services in Europe's Urban and Peri-Urban Forests: A Comparative Analysis. In *Proceedings* (Vol. 117, No. 1, p. 29). MDPI.
- Aleksova, B., Milevski, I., & **Stefanidis, S.** (2025). Flash flood potential index at national scale: Susceptibility assessment within catchments. *Open Geosciences*, 17(1), 20250891.
- Proutsos, N. D., **Stefanidis, S. P.**, Solomou, A. D., Michopoulos, P., Bourletsikas, A., & Lattas, P. (2025). Impact of Post-Fire Rehabilitation Treatments on Forest Soil Infiltration in Mediterranean Landscapes: A Two-Year Study. *Fire*, 8(7), 269.
- Tsiros, I. X., Proutsos, N. D., & **Stefanidis, S. P.** (2025). Uncertainties in the estimation of Thornthwaite's Aridity and Moisture Indices in Greece over the last century using ground and gridded datasets. *Atmospheric Research*, 324, 108200.
- Proutsos, N. D., Solomou, A. D., & **Stefanidis, S. P.** (2025). From bare soil to green infrastructure: Micrometeorological benefits from the restoration of a small urban park in a Mediterranean city. *Land*, 14(8), 1681.
- **Stefanidis, S. P.**, Proutsos, N. D., Tigkas, D., & Chatzichristaki, C. (2025). Erosion-based classification of mountainous watersheds in Greece: a geospatial approach. *Sustainability*, 17(19), 8710.
- **Stefanidis, S. P.**, Proutsos, N. D., Solomou, A. D., Michopoulos, P., Bourletsikas, A., Tigkas, D., ... & Kader, S. (2025). Spatiotemporal monitoring of post-fire soil erosion rates using earth observation (EO) data and cloud computing. *Natural Hazards*, 121(3), 2873-2894.
- Proutsos, N. D., Solomou, A. D., **Stefanidis, S. P.**, & Tsiros, I. X. (2025). Reflectance and Thermal Micrometeorological Characteristics of an Urban Green Space in the Mediterranean During July's 2023 Heatwave. *Land*, 14(1), 194.
- **Stefanidis, S.**, Proutsos, N., Alexandridis, V., & Mallinis, G. (2024). Ecosystem services supply from Peri-Urban watersheds in Greece: soil conservation and water retention. *Land*, 13(6), 765.
- Proutsos, N. D., Fotelli, M. N., **Stefanidis, S. P.**, & Tigkas, D. (2024). Assessing the accuracy of 50 temperature-based models for estimating potential evapotranspiration (PET) in a Mediterranean mountainous forest environment. *Atmosphere*, 15(6), 662.
- Mallinis, G., Domakinis, C., Kokkoris, I. P., **Stefanidis, S.**, Dimopoulos, P., & Mitsopoulos, I. (2023). MAES implementation in Greece: geodiversity. *Journal of Environmental Management*, 342, 118324.
- **Stefanidis, S.**, Mallinis, G., & Alexandridis, V. (2023). Multi-Decadal Monitoring of Soil Erosion Rates in South Europe. *Environmental Sciences Proceedings*, 4(1), 138.
- **Stefanidis, S.**, Tegos, A., & Alexandridis, V. (2023). How Has Aridity Changed at a Fir (*Abies Borisii-Regis*) Forest Site in Central Greece during the Past Six Decades?. *Environmental Sciences Proceedings*, 26(1), 121.
- Alexandridis, V., **Stefanidis, S.**, & Dafis, S. (2023). Evaluation of ERA5 and ERA5-Land Reanalysis Precipitation Data with Rain Gauge Observations in Greece. *Environmental Sciences Proceedings*, 26(1), 104.
- **Stefanidis, S.**, Rossiou, D., & Proutsos, N. (2023). Drought severity and trends in a Mediterranean oak forest. *Hydrology*, 10(8), 167.
- Proutsos, N., Tigkas, D., Tsevreni, I., Alexandris, S. G., Solomou, A. D., Bourletsikas, A., **Stefanidis, S.**, & Nwokolo, S. C. (2023). A Thorough Evaluation of 127 Potential Evapotranspiration Models in Two Mediterranean Urban Green Sites. *Remote Sensing*, 15(14), 3680.
- Tegos, A., **Stefanidis, S.**, Cody, J., & Koutsoyiannis, D. (2023). On the sensitivity of standardized-precipitation-evapotranspiration and aridity indexes using alternative potential evapotranspiration models. *Hydrology*, 10(3), 64.
- Sidiropoulou, A., Chouvardas, D., Mantzanas, K., **Stefanidis, S.**, & Karatassiou, M. (2022). Impact of Transhumant Livestock Grazing Abandonment on Pseudo-Alpine Grasslands in Greece in the Context of Climatic Change. *Land*, 11(12), 2126.
- **Stefanidis, S.**, Alexandridis, V., & Mallinis, G. (2022). A cloud-based mapping approach for assessing spatiotemporal changes in erosion dynamics due to biotic and abiotic disturbances in a Mediterranean Peri-Urban forest. *Catena*, 218, 106564.
- **Stefanidis, S.**, Alexandridis, V., & Theodoridou, T. (2022). Flood exposure of residential areas and infrastructure in Greece. *Hydrology*, 9(8), 145.
- Giannaros, C., Dafis, S., **Stefanidis, S.**, Giannaros, T. M., Koletsis, I., & Oikonomou, C. (2022). Hydrometeorological analysis of a flash flood event in an ungauged Mediterranean watershed under an operational forecasting and monitoring context. *Meteorological applications*, 29(4), e2079.
- Neto, M. R. R., Musselli, D. G., Lense, G. H. E., Servidoni, L. E., **Stefanidis, S.**, Spalevic, V., & Mincato, R. L. (2022). Soil loss modelling by the IntErO model-erosion potential method in the Machado River Basin, Minas Gerais, Brazil. *Agriculture & Forestry*, 68(2), 7-21.
- **Stefanidis, S.**, Alexandridis, V., Spalevic, V., & Mincato, R. L. (2022). Wildfire effects on soil erosion dynamics: the case of 2021 megafires in Greece. *Agriculture & Forestry*, 68(2), 49-63.
- Karatzetzou, A., **Stefanidis, S.**, Stefanidou, S., Tsinidis, G., & Pitilakis, D. (2022). Unified hazard models for risk assessment of transportation networks in a multi-hazard environment. *International Journal of Disaster Risk Reduction*, 75, 102960.
- **Stefanidis, S.**, Alexandridis, V., & Ghosal, K. (2022). Assessment of Water-Induced Soil Erosion as a Threat to Natura 2000 Protected Areas in Crete Island, Greece. *Sustainability*, 14(5), 2738.
- **Stefanidis, S.**, Alexandridis, V., Chatzichristaki, C., & Stefanidis, P. (2021). Assessing soil loss by water erosion in a typical Mediterranean ecosystem of northern Greece under current and future rainfall erosivity. *Water*, 13(15), 2002.
- **Stefanidis, S.**, Chatzichristaki, C., & Stefanidis, P. (2021). An ArcGIS toolbox for estimation and mapping soil erosion. *J. Environ. Prot. Ecol.*, 22, 689-696.
- **Stefanidis, S.**, Dafis, S., & Stathis, D. (2020). Evaluation of regional climate models (RCMs) performance in simulating seasonal precipitation over Mountainous Central Pindus (Greece). *Water*, 12(10), 2750.
- Rahmati, O., Darabi, H., Panahi, M., Kalantari, Z., Naghibi, S. A., Ferreira, C. S. S., Komejady, A., Karmirastehar, Z., Mohammadsafar, **Stefanidis, S.**, Bui, D. T. & Haghighi. 2020. Development of novel hybridized models for urban flood susceptibility mapping. *Scientific Reports (Nature)*, 10(1), 1-19. 3/5
- Rahmati, O., Darabi, H., Haghighi, A. T., **Stefanidis, S.**, Komejady, A., Nalivan, O. A., & Tien Bui, D. (2019). Urban flood hazard modeling using self-organizing map neural network. *Water*, 11(11), 2370.

- **Stefanidis, S.**, & Stathis, D. (2018). Effect of climate change on soil erosion in a mountainous Mediterranean
- **Stefanidis, S.**, & Stathis, D. (2018). Spatial and temporal rainfall variability over the Mountainous Central Pindus (Greece). *Climate*, 6(3), 75. catchment (Central Pindus, Greece). *Water* 10 (10), 1469.
- **Stefanidis, S.**, & Chatzichristaki, C. (2018). Hydrological response of a mountainous catchment to climate trends. *Silva Balcanica*, 19(2), 37-46.
- **Stefanidis, S.**, & Chatzichristaki, C. (2017). Response of soil erosion in a mountainous catchment to temperature and precipitation trends. *Carpathian J. Earth Environ. Sci.*, 12, 35-39.
- Rahmati, O., Haghizadeh, A., & **Stefanidis, S.** (2016). Assessing the accuracy of GIS-based analytical hierarchy process for watershed prioritization; Gorganrood River Basin, Iran. *Water resources management*, 30, 1131-1150.
- Chatzichristaki, C., **Stefanidis, S.**, Stefanidis, P., & Stathis, D. (2015). Analysis of the flash flood in Rhodes Island (South Greece) on 22 November 2013, 16, 65-77.
- **Stefanidis, S.**, & Stathis, D. (2013). Assessment of flood hazard based on natural and anthropogenic factors using analytic hierarchy process (AHP). *Natural hazards*, 68, 569-585.
- Stefanidis, P., & **Stefanidis, S.** (2012). Reservoir sedimentation and mitigation measures. *Lakes & Reservoirs: Research & Management*, 17(2), 113-117.
- Stefanidis, P., **Stefanidis, S.**, & Tziafani, F. (2011). The threat of alluviation of lakes resulting from torrents (case study: Lake Volvi, north Greece). *International Journal of Sustainable Development and Planning*, 6(3), 325-335

### Projects

- Jan 2026 – Dec 2019: LIFE24-GIC-EL-LIFE LULUCF ATLAS - Facing key challenges in greenhouse gas accounting in the land use and forestry sector. Project 101212908 (Principal Investigator)
- June 2025 – June 2028: Hellenic Green Fund, grant number EP/3/2025/04-06-2025: TorRes - An inventory and condition assessment methodology for torrent-control structures in mountainous watersheds: A pilot study in Portaikos watershed, Thessaly, Greece (Principal Investigator)
- Jul 2024 – Jan 2026: NBS- CORES: Nature-Based Solutions to Increase Community Resilience Against Climate-Induced Disasters for a sustainable agriculture . INTERREG NEXT BlackSea - BSB00208
- Feb 2023 - Oct 2023: LIFE IP 4 NATURA: Integrated Actions for the Conservation and Management of NATURA 2000 Sites, Species, Habitats and Ecosystems in Greece. LIFE16 IPE/GR/002
- Oct 2020 - Sep 2023: LocalPro – Integrated technological platform for the management/ facilitation of the operational processes of the local government organizations in the framework of their duties for civil protection and of the potentially affected local businesses for the improvement of societies' resilience to natural disasters.European structural and investment funds, Innovation investment plans, Programme of the Central Macedonia Region (Greece).
- Jan 2020 - Apr 2021: Assessment of soil loss in the mountainous catchment using modern technology under climate change” (MIS 5047924). Greece and the European Union (European Social Fund-ESF) through the Operational Programme «Human Resources Development, Education and Lifelong Learning 2014-2020.
- Jul 2018 - Aug 2019: eOUTLAND - Protecting biodiversity at NATURA 2000 sites and other protected areas from natural hazards through a certified framework for cross-border education, training, and support of civil protection volunteers based on innovation and new technologies. Interreg V-A “Greece-Bulgaria 2014-2020” Cooperation Programme.
- Feb 2013 - Dec 2013: Rational watershed management of Lake Koronia to protect soils and threatened natural habitats. Funded by the Research Committee of Aristotle University of Thessaloniki, Greece.
- Jan 2012 - Dec 2012: The effect of urbanization on flooding. Funded by the Research Committee of Aristotle University of Thessaloniki, Greece.
- Jun 2011 - Dec 2011: Determination of elements of forest-technical stream's arrangement for the watersheds of Lake Kastoria. Funded by the Regional Development Agency of Western Macedonia S.A.

### Citations

Scopus  
Citations: 857  
H- index: 17

### Membership & Reviewing activity

- Guest Editor for the special issue “Forest Hydrometeorology” of the scientific journal “Hydrology”, MDPI.
- Guest Editor for the special issue “Flash Floods in Urban Areas” of the scientific journal “Water”, MDPI.
- Guest Editor for the special issue “Climate Variability and Change in the 21th Century” of the scientific journal “Climate”, MDPI.
- Member of the Topical Advisory Panel of the scientific journal “Sustainability”, MDPI
- Reviewer of the following scientific journals:  
Atmosphere, MDPI; Climate, MDPI; Geomatics, Natural Hazards and Risk, Taylor, and Francis; Forest, MDPI; Geocarto International, Taylor and Francis; Hydrology, MDPI; Hydrological Science Journal, Taylor and Francis; Journal of Hydrology, Elsevier; Journal of Hydraulic Engineering, ASCE; Lakes & Reservoirs: Research and Management, Wiley; Land, MDPI; Natural Hazards, Springer; Sustainability, MDPI; Theoretical and Applied Climatology, Springer; Water Resources Management, Springer; Water, MDPI

## Honours and awards

- Included in the "World's top 2% of Scientists List" for the single year of 2022 as published by Stanford University and Elsevier (<https://elsevier.digitalcommonsdata.com/datasets/btchxktzyw/6>)
- Our paper "On the Sensitivity of Standardized- Precipitation-Evapotranspiration and Aridity Indexes Using Alternative Potential Evapotranspiration Models" in Hydrology MDPI journal is selected by the editors as the cover of the forthcoming issue. The issue cover will be displayed on the issue page: <https://www.mdpi.com/2306-5338/10/3>
- Our paper "Precipitation and Potential Evapotranspiration Temporal Variability and Their Relationship in Two Forest Ecosystems in Greece" in Hydrology MDPI journal is listed in the Official list of Top 20 Cited articles of the journal, <https://www.mdpi.com/journal/hydrology/announcements/6844>

## Presentations

- Invited speaker at the Online workshop "Contribution of Geoinformatics in Soil Erosion Modeling", organized by the GeoSat ReSeArch lab of Institute for Mediterranean Studies - Foundation for Research and Technology Hellas, and Technical University of Crete, under the framework of "5DARE" project. Presentation title: "Modeling Soil Erosion Potential in Mediterranean Ecosystems Using Geospatial Technologies"
- Invited speaker at the Workshop "Best Water Use", under the framework of "BEST-U" project co-financed by the Interreg V-A Cooperation Programme Greece – Bulgaria 2014-2020, Presentation title: "Water Resources Management, Agriculture - Environmental Protection"
- Invited speaker at the Workshop "Natural Disasters - from prevention to management" organized by the Technical Chamber of Greece, Presentation title: "Contribution of mountainous hydromorphic works and Forest vegetation to the prevention of flood phenomena"

## Teaching activity

- 2019 – 2020: Visitor Professor, Postgraduate Programme: Sustainable management of forests and natural ecosystems: protection, production and exploitation, Aristotle University of Thessaloniki, Faculty of Forestry and Natural Environment, Greece.  
Course: Innovative models for mountainous water management and sediment control.
- 2019 – 2020: External Professor, Aristotle University of Thessaloniki, Faculty of Forestry and Natural Environment, Graduate Programme, Greece.  
Course: Mountainous water management
- 2018-2019: External Professor, Aristotle University of Thessaloniki, Faculty of Forestry and Natural Environment, Graduate Programme, Greece.
- Courses: Forest hydrology and water resources, Applied hydraulic and hydraulic works, Natural Geography- Geomorphology