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Curriculum vitae

Personal details

Name: Panagiotis Dalias
Place of birth: Rhodes - Greece
Work address: Agricultural Research Institute
P.O.Box 22016, 1516 Nicosia, Cyprus
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Education

1992 - 1997 University of Exeter (U.K.)
Ph.D. in Ecology
Scholarship of the Academy of Athens Sep. '92 – Aug. '95.

1993 - 1996 Centre National de la Recherche Scientifique (CNRS) - Centre d'Ecologie Fonctionnelle et Evolutive (CEFE) - Montpellier
Experimental part of the Ph.D.

1990 - 1991 University of Aberdeen (U.K.)
M.Sc. in Ecology
ESF scholarship

1985 - 1990 University of Athens – Department of Biology
Ptychio of Biology

Languages

Greek (native), English, French.

Employment and work experience

Current position Research Officer A', Agricultural Research Institute, Nicosia, Cyprus
2002 Feb. - 2004 Sep. Adjunct Lecturer at the Department of Environmental Studies, University of the Aegean.

Scientific fellow at the “Environmental Cartography” Curriculum by Selection, University of the Aegean, Mytilini, Greece.

Scientific publications

A) Theses

Ph.D. title: “Forest soil organic matter in a European transect: Carbon and nitrogen mineralization in response to temperature”

Supervisor: Prof. Jonathan M. Anderson (Supervisor at CNRS: Dr. Pierre Bottner).

M.Sc. thesis title: “The effects of clear-cutting on soil microarthropods in a Sitka spruce plantation”

Supervisor: Prof. Ian Alexander

Undergraduate dissertation title: “Biogeography of land snails of the islands Karpathos, Kassos and Saria”

Supervisor: Dr. M. Mylonas.

B) Publications in peer review journals

- Dalias, P., Anderson, J.M., Bottner, P. and Coûteaux, M-M. (2001). Temperature responses of carbon mineralisation in conifer forest soils from different regional climates incubated under standard laboratory conditions, *Global Change Biology* 7, 181-192.
- Dalias, P., Anderson, J.M., Bottner, P. and Coûteaux, M-M. (2001). Long-term effects of temperature on carbon mineralisation processes, *Soil Biology and Biochemistry* 33, 1049-1057.
- Dalias, P., Anderson, J.M., Bottner, P. and Coûteaux, M-M. (2002). Temperature response of net nitrogen mineralisation and nitrification rates in conifer forest soils incubated under standard laboratory conditions. *Soil Biology and Biochemistry* 34, 691-701.
- Dalias, P., Kokkoris G.D. and Troumbis, A.Y. (2003). Functional shift hypothesis and the relationship between temperature and soil carbon accumulation. *Biology and Fertility of Soils* 37, 90-95.
- Dalias, P., Mprezetou I. and Troumbis, A.Y. (2003). Use of a modified litterbag for the study of litter mixtures. *European Journal of Soil Biology* 39, 57-64.
- Hyvönen, R., Ågren, G.I. and Dalias P. (2003). Analysing temperature response of decomposition of organic matter. *Global Change Biology* 11, 770-778.
- Petsikos, C., Dalias, P. and Troumbis, A.Y. (2007). Effects of *Oxalis pes-caprae* L. invasion in olive groves. *Agriculture, Ecosystems and Environment* 120, 325–329.
- Antoniadis, V., Tsadilas, C.D. and Dalias, P. (2010). Evaluation of sewage sludge as a soil amendment in relation to nitrate leaching. *Agrochimica* 54, 91-102.
- Dalias, P. (2012). Increased Yield Surplus of Vetch-Wheat Rotations under Drought in a Mediterranean Environment. *The Scientific World Journal*, art. no. 658518.
- Omirou M., Dalias P., Costa C., Papastefanou C., Dados A., Ehaliotis C. and Karpouzias D. (2012). Exploring the potential of biobeds for the depuration of pesticide-contaminated wastewaters from the citrus production chain: Laboratory, column and field studies. *Environmental Pollution*, 166, pp. 31–39.
- Dalias, P. 2013. Discrepancy in Fertilizer Nitrogen Equivalency Estimates of Dry Sewage Sludge Application in Soil. *Communications in Soil Science and Plant Analysis*, 44, no. 6, pp. 1106–1115.
- Evangelou, E., Dalias, P., Giourga, C. and Tsadilas, C. (2014). Effect of Land-Use History on Soil Carbon and Nitrogen in a Mediterranean Catchment. *Communications in Soil Science and Plant Analysis*, 45, 2331-2340
- Dalias, P., & Polycarpou, P. (2014). Decomposition of the biodiesel by-product, crude glycerol, in soil. *Research in Agricultural Engineering*, 60(1), 17-23.
- Dalias P., (2015). Grain legume effects on soil nitrogen mineralization potential and wheat productivity in a Mediterranean environment. *Archives of Agronomy and Soil Science*, 61, 461-473
- Dalias, P. and Neocleous, D. (2017). Comparative Analysis of the Nitrogen Effect of Common Agricultural Practices and Rotation Systems in a Rainfed Mediterranean Environment. *Plants*, 6, 61.

- Christou A., Dalias P. and Neocleous, D. (2017). Spatial and temporal variations in evapotranspiration and net water requirements of typical Mediterranean crops on the island of Cyprus. *The Journal of Agricultural Science*, 155, 1311-1323.
- Dalias, P., Prasad, M., Mumme, J., Kern, J., Stylianou, M., & Christou, A. (2018). Low-cost post-treatments improve the efficacy of hydrochar as peat replacement in growing media. *Journal of Environmental Chemical Engineering*, 6(5), 6647-6652.
- Christou, A., Papadavid, G., Dalias, P., Fotopoulos, V., Michael, C., Bayona, J. M., Piñad, B. and Fatta-Kassinou, D. (2018). Ranking of crop plants according to their potential to uptake and accumulate contaminants of emerging concern. *Environmental research*, 170, 422-432.
- Dalias, P., Christou, A., & Neocleous, D. (2019). Adjustment of Irrigation Schedules as a Strategy to Mitigate Climate Change Impacts on Agriculture in Cyprus. *Agriculture*, 9(1), 4.
- Stylianou, M. Christou, A. Dalias, P. Polycarpou, P. Michael, C. Agapiou, A. Papanastasiou, P. Fatta-Kassinou, D. 2020 "Physicochemical and structural characterization of biochar derived from the pyrolysis of biosolids, cattle manure and spent coffee grounds", *Journal of the Energy Institute*, 93(5), 2063-2073.
- Dalias, P. and Christou, A., 2020. Nitrogen Supplying Capacity of Animal Manures to the Soil in Relation to the Length of Their Storage. *Nitrogen*, 1(1), pp.52-66.
- Christou, A., E.C. Georgiadou, A.M. Zissimos, I.C. Christoforou, C. Christofi, D. Neocleous, P. Dalias, S.O.C.A. Torrado, A. Argyraki and V. Fotopoulos. 2020. Hexavalent chromium leads to differential hormetic or damaging effects in alfalfa (*Medicago sativa* L.) plants in a concentration-dependent manner by regulating nitro-oxidative and proline metabolism. *Environmental Pollution* 267: 115379.
- Christou, A., E.C. Georgiadou, A.M. Zissimos, I.C. Christoforou, C. Christofi, D. Neocleous, P. Dalias and V. Fotopoulos. 2021. Uptake of hexavalent chromium by *Lactuca sativa* and *Triticum aestivum* plants and mediated effects on their performance, linked with associated public health risks. *Chemosphere* 267: 128912.
- Christou, A., E.C. Georgiadou, A.M. Zissimos, I.C. Christoforou, C. Christofi, D. Neocleous, P. Dalias, A. Ioannou and V. Fotopoulos. 2021. Uptake of hexavalent chromium by tomato (*Solanum lycopersicum* L.) plants and mediated effects on their physiology and productivity, along with fruit quality and safety. *Environmental and Experimental Botany*: 104564.
- Christou, A., Hadjisterkotis, E., Dalias, P., Demetriou, E., Christofidou, M., Kozakou, S., Michael, N., Charalambous, C., Hatzigeorgiou, M., Christou, E. and Stefani, D., 2022. Lead contamination of soils, sediments, and vegetation in a shooting range and adjacent terrestrial and aquatic ecosystems: A holistic approach for evaluating potential risks. *Chemosphere*, 292, 133424.

C) Book chapter

- Hulme P.E., Brundu G., Camarda I., Dalias P., Lambdon P., Lloret F., Médail F., Moragues E., Suehs C.M., Traveset A., Troumbis A. & Vilà M., 2007. Assessing the risks to Mediterranean islands ecosystems from alien plant introductions. In: Tokarska-Guzik B., Brock J.H., Brundu G., Child L., Daehler C.C. & Pysek P. (eds.). *Plant invasions: Human perception, ecological impacts and management*. Backhuys Publishers, Leiden, pp. 39-56.

E) Conference Proceedings, Abstracts and Posters

- Dalias, P., Bottner, P., Coûteaux, M-M. and Anderson, J.M. (1996). The effect of temperature on the quality of residual organic matter during the decomposition of labelled plant material. In: "Driven by Nature: Plant Litter Quality and Decomposition", Cadisch G., Giller K.E. (Eds.), *International Symposium Abstracts*, Wye College, University of London (poster).
- Dalias, P. (1999). Carbon mineralization response to temperature of soils from a north-south European transect using ¹⁴C-labelled material. In: *Eureco99: the European Dimension in Ecology, Perspectives and challenges for the 21st century*, (Sgardelis, S.P. and Pantis, J.D., eds), VIII European Ecological Congress Abstracts (Abstract).
- Petsikos, C., Dalias, P. and Troumbis, A.Y. (2006). The impact of the biological invader *Oxalis pes-caprae* L. on carbon stocks of herbaceous ecosystems: the case of olive groves of Lesvos, 25th Congress Proceedings of the Hellenic Society of Biological Sciences, Lesvos (Abstract).
- Vassios, G., Dimitrakopoulos, P., Dalias, P. and Troumbis, A.Y. (2004). Development of a spatial analysis platform for ecological phenomena: the study of the dynamics of carbon storage. 7th Panhellenic Geography Conference of the Hellenic Geographical Society, Lesvos, Greece (Abstract).

- Dalias, P., Vassios, G., Petsikos, C., Flouda, E. and Troumbis, A.Y. (2003). Biotic processes and the dynamics of carbon storage: land use change evaluation. 1st Congress of Greek Ecological Society, 27-29 Sep. Thessaloniki (Abstract).
- Makrikosta, E.-N., Dimitrakopoulos, P.G., Dalias, P. and Troumbis, A.Y. (2004). The effect of grazing pressure exclusion on soil organic carbon. Annual Conference of the Hellenic Ecological Society and Hellenic Zoological Society. Mytilini, Lesbos (poster).
- Vilá M., Tessier M., Gimeno I., Moragues E., Traveset A., de la Bandera M.C., Suehs C.M., Médail F., Affre L., Galanidis A., Dalias P., Petsikos B., Carta L., Manca M. and Brundu G. (2004). Impacts of plant invasion on species diversity in Mediterranean islands. Proceedings 10th MEDECOS – International Conference on Ecology, Conservation and Management of Mediterranean Climate Ecosystems, 25 April – 1 May, Rhodes Island, Greece (proceedings).
- Petsikos C., Dalias P. and Troumbis, A. (2004). Effects of *Oxalis pes-caprae* L. invasion on diversity and carbon cycle in the grassland understorey of a Mediterranean olive grove. Proceedings 10th MEDECOS – International Conference on Ecology, Conservation and Management of Mediterranean Climate Ecosystems, 25 April – 1 May, Rhodes Island, Greece (poster).
- Evangellou, L., Dalias, P. and Giourga, C. (2006). Land use and organic carbon in soils of Kalloni Gulf, Lesbos. Proceedings of the 11th Panhellenic Soil Science Conference, 4-7 October, Arta – Greece, Greek Soil Science Society, pp. 365-373. (proceedings - in Greek with English summary)
- Antoniadis, V., Tsadilas, C.D. and Dalias, P. (2008). Nitrate leaching in soils amended with sewage sludge and inorganic fertilizers. 12th Panhellenic Soil Science Conference Proceedings, 24 - 27 September 2008, Pyrgos – Greece, Greek Soil Science Society (Proceedings).
- Kathijotes, N., Dalias, P. and Koleva, M. (2008). Rehabilitation of mining areas using wastewater sludge: does sludge influence soil permeability? International Scientific Conference, 21-22 Nov., Gabrovo, Bulgaria. (Proceedings).
- Kosta, C.P. Dalias, P. Papatheodorou, E.M. and Stamou, G.P. (2008). Mechanical disturbance and incorporation of organic additives: their effect on soil variables related with the N cycle. 4th Panellenic Congress of the Hellenic Ecological Society, “Contemporary research trends in Ecology”, 9-12 Oct, Volos, Greece (Abstract).
- Dalias P. (2008). Evaluation of sewage sludge and straw incorporation in soil in relation to production and grain quality characteristics of wheat. 12th Panhellenic Soil Science Conference Proceedings, 24 - 27 September 2008, Pyrgos – Greece, Greek Soil Science Society (Proceedings).
- P. Dalias, M.D. Omirou, C. Costa, C. Papastefanou, A. Nantos, C. Ehaliotis, D. Karpouzas. (2010). Dissipation of pesticides used in the citrus industry in different compost-derived biomixtures. Proceedings of the 7th International Conference ORBIT 2010, 29 June – 3 July, Heraklion, Crete, Greece. K. Lasaridi, T. Manios, W. Bidlingmaier, K. Abeliotis, M. de Bertoldi, L. Diaz, E.I. Stentiford (Eds), Grafima Publications, Thessaloniki (Abstract).
- Michael Kokkinos, M., Dalias, P. and Argyrokastritis, I. (2010). Effect of organic farming on physical, chemical and biological properties of soil. 13th Panhellenic Soil Science Conference Proceedings, 20 - 22 October 2010, Larissa – Greece, Greek Soil Science Society (Proceedings).
- Prasad M., Lee A., Cassidy J., Gaffney M., Dalias P. 2013. Release of nitrogen and phosphorus from composts, AD digestates and manure and detailed characterization of these materials. Proceedings of the 15th RAMIRAN International Conference, 3-5 June, Versailles, France.
- Dalias, P., Prasad, M. and Mumme, J. (2015). Use of biochar and hydrochar as peat replacement: characterization and comparative plant growth tests. Oral presentation and Abstract in: Final meeting EU-COST Action TD1107 “Biochar for Sustainable Environmental Management” Hochschule Geisenheim University 28-30 Sep. 2015, Geisenheim, Germany

- Dalias, P and Sparaggis, D. (2016). Mineralization of nitrogen after incorporation in soil of the main types of animal manure produced in Cyprus. 4th International Conference on Sustainable Solid Waste Management, 23rd - 25th June 2016, Limassol, Cyprus. (Abstract)
- Kylili, A., Fokaides, P.A., Nicolaides, D., Polycarpou, P. and Dalias, P. (2016). Alternative Sewage Sludge Management Routes in Cyprus. 4th International Conference on Sustainable Solid Waste Management, 23rd - 25th June 2016, Limassol, Cyprus. (Proceedings)
- Maroulis, L., Mylonas, M., Dalias, P. and Vardinoyannis, K. (2017). Land Snails of Rhodes, Symi and Chalki islands (SE Aegean). 8th Congress of the European Malacological Societies, 10-14 September 2017, Kraków, Poland. (Abstract and Poster)
- Dalias, P., Christou, A. and Neocleous D. (2018). Reassessment of irrigation water needs of crops in Cyprus. Preconference workshop “Agriculture and Animal Husbandry in a Changing Climate”, “Climate Change in the Mediterranean and the Middle East: Challenges and Solutions”, 16-17 May 2018, Nicosia, Cyprus. (Abstract)
- Dalias, P. (2019) Application of organic materials in soil in a circular. Circle 2019 Conference, “Challenges for the Islands in the era of the Circular Economy”, 28-29 March – Nicosia, Cyprus. (Abstract)
- Dalias, P., Christou, A. and Neocleous, D. (2019). Adjustment of irrigation to mitigate climate change impacts in Cyprus. In: Climatico 2019 – International Conference on Climate change in the Mediterranean Agriculture, Food and Health Impacts and Challenges, 11-12 April 2019, Limassol, Cyprus. (Abstract)
- Dalias, P., Markou, M. and Omirou, M. (2019). Soil mapping as a tool for mitigation and adaptation to climate change. In: 2nd International Conference ADAPTtoCLIMATE 24-25 June 2019, Heraklion, Greece. (Abstract)
- Dalias, P. and Prasad, M. (2022). Stability-associated variation of maturity and plant growth effects of composts. 9th International Conference on Sustainable Solid Waste Management Corfu, Greece, 15 - 18 JUNE 2022. (Proceedings)
- Charilaou, E. Christou, A. Dalias, P. Zorpas, A. Agapiou, A. Stylianou, M. (2022). Improving the fertility of mine tailings with the use of compost materials 9th International Conference on Sustainable Solid Waste Management Corfu, Greece, 15 - 18 JUNE 2022. (Abstract)

F) Other Publications

- Kokkoris, G., Dimitrakopoulos, P.G., Dalias, P. (2005). *Biological Diversity*. Ministry of the Environment, Athens, pp. 49 (in Greek).
- Dalias, P. (2006). “Agriculture and Biodiversity - The impact of land abandonment: a case study of Cyprus” Report in the framework of MEACAP project “Impact of Environmental Agreements on the CAP”, 2004-2006. Host Institution: Unit of Environmental Studies, Center of Research and Development, Intercollege, Cyprus.
- Kosta, C. and Dalias, P. (2006). Desertification in Cyprus and its Impacts on the Wine Industry. Report of research project funded by UNDP/UNOPS, February – September 2006. Host Institution: Unit of Environmental Studies, Center of Research and Development, Intercollege.
- Dalias, P. The impact of straw in the fertility and productivity of soil. Journal AGROTIS, Issue Oct – Dec. 2007, pp. 52-54.
- Dalias, P. The multiple benefits of agriculture. Journal AGROTIS, Issue Jan – Mar. 2008, pp. 52-54.
- Dalias, P. The effect of rotation, fallow and incorporation of sewage sludge and straw on the fertility and productivity of soils. Journal AGROTIS, Issue Oct – Dec 2009, pp. 55-56.
- Dalias, P. Agriculture and Biodiversity, Journal AGROTIS, Issue Oct – Dec 2010, pp. 47-48.
- Dalias, P. Nitrogen availability in manure and compost. Journal AGROTIS, Issue Oct – Dec 2013, pp. 21-24.
- Dalias, P., Polycarpou, P. and Kosta, C. (2014). Management of empty agrochemical containers. Journal AGROTIS, Issue Apr – Jun 2014, pp. 22-23.
- Christou, A., Dalias, P. and Neocleous D. Reassessment of crop water needs with the traditional approach of pan evaporation. Journal AGROTIS, Issue Sep – Dec 2017, pp. 32-36.

Teaching experience

- 2001** «Biogeography» class - self-reliant teaching -
- 2002 Feb. - 2004 Sep.** «Biological diversity» - self-reliant teaching -
«Research Methods in Environmental Sciences» - partial teaching -
- 2002 Sep. - 2004 Sep.** «Biology» - self-reliant teaching -
- 2001 Jan. – 2004 Sep.** Participation with lectures in the classes «Natural Ecosystem Processes», «Aquatic Ecosystems», «General Ecology».
- 2003 Feb. - 2004 Sep.** Participation with lectures in the classes «Functional Ecology» and «Terrestrial Ecosystems» of the Postgraduate courses «Agriculture and Environment» and «Environmental and Ecological Engineering» of the Department of Environmental Studies.

Supervision of dissertations

Postgraduate dissertations

- Vassios, G. (2003). Development of a spatial analysis platform for the study of ecological phenomena: the case of fire in relation to the dynamics of carbon stocks. Postgraduate course «Environmental Policy and Management», Department of Environmental Studies, University of the Aegean.
- Flouda, E. (2003). Estimate of carbon stocks in the forest ecosystems of Greece using satellite imagery. Postgraduate course «Environmental Policy and Management», Department of Environmental Studies, University of the Aegean.
- Kosta, C. (2008) Changes in the availability of soil C and N in response to the application of alternative methods of fertilization. Department of Biology, Aristotelian University of Thessaloniki. Local supervision
- Christofi, E. (2021). Investigation of the mobility of lead in the soil and its uptake by lettuce plants (*Lactuca sativa*) and the effect of using biochar as a means of soil remediation. MSc thesis, University of Thessaly. Local supervision
- Charilaou, E. (2022). Use of compost to improve the germination and growth of *Medicago sativa* in mining waste. MSc thesis, Open University of Cyprus. Local supervision

Undergraduate dissertations

- Flouda, E. (2002). Estimate of carbon stocks in the island of Lesbos using satellite data. Department of Environmental Cartography, University of the Aegean.
- Nikolakena, E. and Psaltopoulos, P. (2003). A study of the distribution of biological invaders in Lesbos: ecological and biogeographic variables. Department of Environmental Cartography, University of the Aegean.
- Giannakoula, K. (2003). Biomass and carbon storage in a phrygana ecosystem at the region of Amali, Lesbos. Department of Environmental Studies, University of the Aegean.
- Papanikolaou, R. (2004). Contemporary changes of land uses in Cyprus. Department of Environmental Studies, University of the Aegean.
- Makrykosta, E. (2004). The influence of grazing exclusion on soil carbon storage of a phrygana ecosystem of Chios. Department of Environmental Studies, University of the Aegean.
- Diamandis, P. (2004). The effect of afforestation of a phrygana ecosystem of Chios on soil carbon storage. Department of Environmental Studies, University of the Aegean.
- Kokkinos, M. (2008) Soil quality characteristics of organically versus conventionally cultivated fields. Department of Natural Resources Management and Agricultural Engineering, Agricultural University of Athens. Local supervision
- Georgiou, N. (2008) Potentially mineralizable nitrogen after the incorporation of manure in soil. Department of Natural Resources Management and Agricultural Engineering, Agricultural University of Athens. Local supervision

- Estimation of soil abiotic parameters for the formulation of a standard carob (*Ceratonia siliqua* L.) co-cultivation system, Department of Biology, University of Cyprus, Local supervision

Laboratory work experience

Techniques for the estimate of decomposition rate of litter and soil organic matter, techniques for the estimate of soil respiration, ^{13}C , ^{14}C and ^{15}N labeling techniques of plant material, methods of measurement of soil microbial biomass carbon and nitrogen, soil organic carbon and organic and inorganic nitrogen, soil particle size fractionation, plant biomass of herbaceous and forest ecosystems.