

CURRICULUM PROF. STEFANIA PAPA

ACTUAL POSITION

Stefania Papa is associate professor of Ecology at the University of Campania "Luigi Vanvitelli" (ex Second University of Naples - SUN)

PREVIOUS WORK POSITIONS

1 November 2002 -31 October 2018: Ecology researcher, (BIO/07) at the Department of Environmental, Biological and Pharmaceutical Sciences and Technologies (DISTABIF), "Luigi Vanvitelli" University of Campania, Caserta, Italy (ex Second University of Naples - SUN).

TRAINING AND ACADEMIC CAREER

Stefania Papa graduated in Biological Sciences in 1996 at the University of Naples Federico II with an experimental thesis entitled "*Selective inhibition as a method to estimate microbial biomass, ammonification and nitrification in two forest soils*". In 1997, she obtained qualification for biologist profession, after 1-year training period at Ecology laboratory of the University of Naples Federico II. She is included in biologist register since 1997. In the same year, she participated in training course on "Dendroecology applied to the study of the natural evolution of abandoned chestnut" organized by the Working Group for Ecology of the Italian Botanical Society in Bellinzona - Switzerland. On January 2001 she obtained the Ph.D. in "Earth Ecology (Plants and Soil)" at the University of Naples Federico II, with thesis entitled: "*Enzymatic activities of microflora in relation to the decomposition of leaf litter in the Mediterranean area*". From 2002 to 2018 she was permanent researcher of Ecology at the Second University of Naples. In 2013 she won the Italian public competition for associate professor of Ecology. On November 2018 she became Associate Professor of Ecology (BIO/07) at the University of Campania "Luigi Vanvitelli" (ex Second University of Naples - SUN)

MAIN RESEARCH TOPICS

Her research activity has been focused on:

1) Soil ecology, 2) Plant ecology, and in particular, the adaptive significance of CAM (Crassulacean Acid Metabolism) and the plant responses to stress.

The main research topics have been:

a) Litter fall and decomposition in ecosystems of the Mediterranean area. Particular attention has been given to: 1) the effects of climatic conditions and litter quality on decomposition rate and on nutrient release. She studied beech and pine litter as well as Mediterranean maquis. 2) the changes of enzyme activities as markers of microbial community succession during litter decomposition. This study related the enzyme activities during decomposition phase gives useful information on functional changes of microbial communities and their succession.

b) Amount and quality of organic matter along the forest soil profile. The research, carried out with specialists of different disciplines, aims to study the role of climate on quality and amount of litter and, therefore, of soil organic matter and the microbe and micro-fauna diversity.

c) Biological activity of soil in natural and anthropic environments by evaluating soil respiration, fungal and microbial biomass as well as enzyme activities. The changes caused by fire, heavy metals and agricultural management have been studied.

d) Higher plant responses to pollutants. In this view, a study of biomonitoring in the urban area of Caserta has been performed. She also performed an integrated study to characterize and evaluate the environmental quality of the Calore and Volturno rivers by determining biological, chemical and physical parameters; for the Volturno river, the attention was pointed on the stretch between Castel Campagnano and the mouth because this area is greatly influenced by pollution caused by the confluence of Calore affluent, upstream, and, by periodical variations of water level dependent on the ENEL dam management (Triflisco dam), downstream.

e) Fruit and vegetables quality. In this view she carried out measurements of content of essential and trace elements in fruits and vegetables samples, in order to estimate their contribution in the daily intake with a typical Mediterranean diet.

f) Microbial diversity in buffalo dejections for their use in the production of bio-hydrogen and bio-methane.

g) The ecological significance of CAM (Crassulacean Acid Metabolism).

TEACHING ACTIVITIES

- From 2012/2013 to present Applied Ecology, Master's Degree Course (DC) in Biology (56 hours: 7 CFU) of the Second University of Naples, now "Luigi Vanvitelli" University of Campania.
- From 2005/2006 to 2011/2012 Evaluation of environmental quality, Degree Course in Biological Sciences (24 hours: 3 CFU) at the Faculty of Sciences MM.FF.NN. of the Second University of Naples.
- From 2005-2006 to 2009-2010 Resources and Environment "(40 hours: 5 CFU), within the course of Applied Ecology, Master's Degree Course in Biology at the Faculty of Sciences MM.FF.NN. of the Second University of Naples.
- From 2004-2005 to 2008-2009 Didactics for Ecology and Ecology Laboratory with experience in the field, (25 hours) - within the School Interuniversity Campania for teaching in schools (SICSI) of the Second University of Naples.
- From 2004-2005 to 2008-2009 Didactics for Ecology and Ecology Laboratory with experience in the field (25 hours) - class A060 - within the School Interuniversity Campania Specialization School Teaching (SICSI) of the Second University of the Studies of Naples.
- From 2004-2005 to 2011-2012 Ecology and sustainable management of the soil, Master's Degree Course in Biology (32 hours: 4 CFU) at the Faculty of Sciences MM.FF.NN. of the Second University of Naples.
- From 2003-2004 to 2009-2010 Ecological Methodologies, Degree Course in Biological Sciences (24 hours: 1 + 2 CFU) at the Faculty of Sciences MM.FF.NN. of the Second University of Naples
- From 2002-2003 to 2009-2010 Plant Ecology, Degree Course in Biological Sciences (24 hours: 3 CFU) at the Faculty of MM.FF.NN. Sciences of the Second University of Naples.
- From 2002 to present - She prepared and carried out numerous exercises on Plant Ecology and Quality Assessment Environmental for the students of the Degree Course in Biological Sciences and Ecology of Soil and Bioremediation and Applied Ecology for the students of the Degree Course in Biology, at the Faculty of Sciences MM.FF.NN. of the Second University of Naples. She continues to carry out exercises for Ecology courses for students of the Degree Course in Biological and Soil Ecology Sciences for the students of the course Master's Degree in Biology.
- From 2002 to present- Tutor, co-tutor and co-supervisor of several degree theses for degree courses (over 100) in "Biological Sciences", "Biology", "Biotechnology" at the Second University of Studies of Naples.
- From 2002 to 2012 - Effective member of commissions for Ecology, Marine Ecology and Freshwater Examinations, Applied Ecology for the students of the degree course in Biological Sciences and Biology, at the Faculty of Sciences MM.FF.NN. of the Second University of Naples and for the Ecology

and Hygiene and Ecology examinations of the systems for the students of the degree course in Biotechnology of the Second University of Naples.

- From 2002 to present – Commission Member for Ecology and Soil Ecology examinations for students of the Degree course in Biological Sciences and Biology, respectively as well as Fundamentals of soil ecology for the students of the degree courses in Food Science and Human Nutrition and in Environmental Sciences
- From 2012 to tutor - Effective Member of the Applied Ecology Exam Commission for the students of the course degree in Civil and Environmental Engineering of the Second University of Naples

SCIENTIFIC COLLABORATIONS WITH RESEARCH INSTITUTIONS

- 2005 -2006 - ENEA of Frascati (ROME)
- 2007 to present - Department of Evolutionary and Functional Biology, section. Museum of History Natural University of Parma (PR)
- 2011 to present - Department of Aerospace and Mechanical Engineering of University of Campania
- 2011 to present - Council for research and experimentation in Agriculture sec. of Caserta
- 2012 to present - Department of Pharmacy of the University of Salerno
- 2012 to present - Department of Earth, Environmental and Life Sciences University of Genoa
- 2014 to present - SUMAS Research Group (Soil and Sustainable Soil Management), Department of Agricultural Chemistry and Soil Sciences, Faculty of Science of the University of Córdoba - UCO - Agrifood Campus of International Excellence, Córdoba Spain.

DIDACTIC ACTIVITIES WITHIN THE PHD PROGRAM

- 2006-2009 - Tutor of 1 PhD thesis in "Resources and Environment" - XXII cycle - at the Second University of Naples "Biological activity and quality of organic matter in beech forests of the Mediterranean area"
- 2012-2015 – Tutor of 1 PhD thesis in "Resources and Environment" - XXVII cycle - at the Second University of Naples "Quality and accumulation of organic matter in the soil in deciduous and coniferous woods under different temperature regimes and precipitation: relations with the biochemical and functional characteristics of soil biota "
- 2013-2014 - Seminar within the PhD in "Environment, Design and Innovation": Land use traditional practices: an example of an eco-sustainable approach (2 hours)
- 2014-2015 - Seminar within the Ph.D. in "Environment, Design and Innovation": Monitoring, biomonitoring and translocation of trace metals from soil to horticultural and fruit species (2 hours)
- 2015-2016 - Seminar within the PhD in "Environment, Design and Innovation": Soil quality managed with conventional and conservative farming techniques (2 hours)

SERVICES PROVIDED IN THE UNIVERSITY AND IN OTHER INSTITUTIONS

- 2003-2013 - Member of the Teaching Council of the PhD Program in "Resources and Environment" at the Second University of Naples
- 2004-2006 - Member of the Exam Commission of admission for teaching qualification in the framework of the SICSI (Inter-university School of Specialization in the Teaching) of the Second University of Naples
- 2005 - Member of the Evaluation Committee for the Ph.D. in "Resources and Environment" - XIX cycle at the Second University of Naples
- 2005 - Member of the Examining Commission for the conferment of n. 1 research grant to be held at the Department of Biological and Pharmaceutical Environmental Sciences and Technologies D.R. 968 2/11/2015 Second University of Naples

- 2005-2019 Member of the Isotopic Research Center for cultural and environmental heritage within the activities of the INNOVA Competence Center
- 2008-2014 - Member of the "Orientation" Commission for the Biology area of the Second University of Naples
- 2008-2009 - Member of the self-assessment committee for enrollment in the Biology Degree Course of the Faculty of Sciences MM.FF.NN. of the Second University of Naples
- 2008-2009 - Member of the self-assessment committee for enrollment in the Inter-Faculty Pharmacy Degree Course of the Second University of Naples
- 2012 - Member of the Commission of selection for the Ph.D. in "Plant Biology" - XXIV cycle at the University of Calabria
- 2012 - Member of the Selection Committee for the award of PhD in "Plant Biology" - XXIV Cycle, at the University of Parma
- 2012-2018 - Member of the Board of Directors of the "International Society of Doctors for the Environment" (Campania section)
- 2013 Member of the Selection Committee for the award of PhD in "Environmental Resource Sciences" - XXV Cycle, at the University of Naples Federico II
- 2013 Member of the Teaching Council of the PhD Course in "Environment, Design and Innovation" at the Second University of Naples
- 2014-2017 Member of the PhD Program in "Environment, Design and Innovation" at the Second University of Naples
- 2014 Member of the Examining Commission for the conferment of n.1 occasional collaboration contract to be carried out at the Department of Biological and Pharmaceutical Environmental Sciences and Technologies D.D.D. 76/2014 of 10/24/14 "Luigi Vanvitelli" University of Studies of Campania
- 2014 - 2018 Member of the Joint Commission of the Department of Environmental, Biological and Pharmaceutical Sciences and Technologies, "Luigi Vanvitelli" University of Campania
- 2017 Member of the Examining Commission for the conferment of n. 1 research grant to be held at the Department of Biological and Pharmaceutical Environmental Sciences and Technologies D.R. 461 29/06/2017 University of Campania "Luigi Vanvitelli"
- 25-28 / 02/2018; 11-18 / 04/2018 - Visiting professor for the Master of Science and the Department of Forestry Technical School of Agronomic and Forestry Engineering University of Córdoba.

ORGANIZATION OF NATIONAL AND INTERNATIONAL SCIENTIFIC EVENTS

- Local organization of the XXVII National Congress of the Italian Society of Ecology, "Ecological research in a changing world" Naples 12-15 September 2017
- Organization of the International Congress "Natural relationality and environmental awareness" Castel Gandolfo (Rome) 4 - 6 April 2014, organized by EcoOne - Ecologically United Association, in collaboration with New Humanity, Sophia University Institute and Youth for a United World Movement
- Organization of the AgriGeneT Congress and publishing activity "Recovery, characterization and enhancement of the fruit and horticultural biodiversity" Caserta 18 May 2012
- Organization of the International Congress "Environmental sustainability and energy issues" Castel Gandolfo (Rome) 14-16 May 2010, organized by EcoOne - Ecologically United Association, in collaboration with New Humanity, Sophia University Institute and Youth for a United World Movement
- Organization of the International Congress "Environmental sustainability: awareness and participation in waste management" Castel Gandolfo (Rome) 17-19 April 2009, organized by EcoOne - Ecologically United Association, in collaboration with New Humanity, Sophia University Institute and Youth for a United World Movement

EDITORIAL ACTIVITY

- Referee of numerous international scientific journals including "Environmental Monitoring and Assessment", "Acta Oecologica", "Applied Soil Ecology", "Polish Journal of Environmental Studies", "Chemosphere", "Biodiversity and Conservation", "Geochemical Journal", "Journal of Environmental Management", "Pedosphere"

ACTIVITIES IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

- 1996 - Research project "ModMED II" (Modeling Dynamics and degradation in Mediterranean Ecosystems) funded by the European Community (national coordinator Prof. Stefano Mazzoleni and local coordinator Prof. Fioretto)
- 1998 - Research project "ModMED III" (Modeling Vegetation Dynamics and degradation in Mediterranean Ecosystems) funded by the European Community (national coordinator Prof. S. Mazzoleni and local coordinator Prof. Fioretto)
- 2003- PRIN research project "Metabolism of the soil biotic community in Mediterranean areas according to the variability of the vegetation cover" funded by the Ministry of the University and of Scientific and Technological Research (national coordinator Prof. S. Mazzoleni and local coordinator Prof. FA Rutigliano)
- 2004- PRIN research project "Metabolism of nitrogen and sulfur in hydroponically grown brassicas" funded by the Ministry of Universities and Scientific and Technological Research (national coordinator Prof. Barbieri and local coordinator Prof. Fuggi)
- 2002 - Research project "Biomonitoring in the urban area of Caserta" funded by the Campania Region (law 41) in the A-Environment area, Priority field A1 (national coordinator Prof. Fioretto)
- 2004 - Research project "Study of the effects of atmospheric pollution on plants in urban and suburban areas of Caserta" funded by the Campania Region (Regional Law 5, annuality 2002) (national coordinator Prof. Fioretto)
- 2005 - Research project "Metabolism of the edaphic community in relation to litter diversity" funded by the Ministry of Universities and Scientific and Technological Research (national coordinator Prof. S. Mazzoleni and local coordinator Prof. F.A. Rutigliano)
- 2005-2008 Research project "Biomonitoring in the urban area of Caserta" funded by the Municipality of Caserta (national coordinator Prof. Fioretto)
- 2007-2013 Rural Development Program - Call for Implementation of Measure 214 "Agri-environmental payments" Action f2) "Breeding of autochthonous plant species in danger of extinction" A) Four-year plan of targeted and concerted actions: recovery of genetic resources at risk of extinction - NETWORK FOR THE SAFETY AND MANAGEMENT OF GENETIC RESOURCES AGRO-FOOD CAMPANE (Acronym: AGRIGENET) - funded by the Campania Region
- 2008- PRIN research project "Enzymatic activities, fungal biomass and quality of organic matter in organic and mineral soil horizons of two Apennine beech forests" funded by the Ministry of Universities and Scientific and Technological Research (national and local coordinator Prof. A Foil)
- 2010- NATIONAL SCIENTIFIC RESPONSIBLE of the project "Litter production, decomposition dynamics and carbon accumulation in the soil of four Italian beech forests along a North-South transect" presented for FIRB - "Futuro in ricerca" 2008 program - with a score of 57/60 and judged to be financed but not financed

OTHER ACTIVITIES IN NATIONAL AND INTERNATIONAL RESEARCH PROJECTS

- 1996 - Scientific collaboration within the research project "ModMED II" (Modeling Dynamics and degradation in Mediterranean Ecosystems) funded by the European Community (national coordinator Prof. Stefano Mazzoleni and local coordinator Prof. Fioretto) (24 months)
- 1998 - Scientific collaboration within the research project "ModMED III" (Modeling Dynamics and degradation in Mediterranean Ecosystems) funded by the European Community (national coordinator Prof. Stefano Mazzoleni and local coordinator Prof. Fioretto) (24 months)

- 2002-Scientific collaboration within the research project "Biomonitoring in the urban area of Caserta" funded by the Campania Region (law 41) in the A-Environment area, Priority field A1 (coordinator Prof. Fioretto) (24 months)
- 2004 - Scientific collaboration within the research project "Study of the effects of atmospheric pollution on plants in urban and suburban areas of Caserta" funded by the Campania Region (Regional Law 5, annuality 2002) (coordinator Prof. Fioretto) (24 months)
- 2005-2008 Scientific collaboration within the research project "Biomonitoring in the urban area of Caserta" funded by the Municipality of Caserta (coordinator Prof. Fioretto) (36 months)
- 2007-2013 Scientific collaboration within the rural development program - Call for implementation of measure 214 "Agri-environmental payments" Action f2) "Breeding of autochthonous plant species in danger of extinction" A) Four-year plan of targeted and concerted actions: recovery genetic resources at risk of extinction - NETWORK FOR THE PROTECTION AND MANAGEMENT OF GENETIC RESOURCES AGRO-FOOD CAMPANE (Acronym: AGRIGENET) - funded by the Campania Region (60 months)
- 2013 - Unit responsible for the project "Correlation in Campania between congenital malformations, exposure to teratogenic metals of the mother and fetus and biomarkers" funded by the Province of Avellino with resolution 4129 of 16/12/2013 prot. 70/170

PUBLICATIONS IN NATIONAL AND INTERNATIONAL SCIENTIFIC JOURNALS

- 1A. Fioretto A., Papa S., Esposito A., Fuggi A. - 1997 - Ciclo della materia organica in un sito a macchia mediterranea: primi dati. Atti S.It.E., 18: 65-66.
- 2A. Fioretto A., Fuggi A., Papa S., Virzo De Santo A. - 1999 - Crassulacean Acid Metabolism in *Sedum dasyphyllum* L. Plant Biosystems, edito da Società Botanica Italiana (Firenze), ISSN 1126-3504, 133(3):239-250
- 3A. Fioretto A., Papa S., Curcio E., Sorrentino G., Fuggi A. - 2000 – Enzyme Dynamics on Decomposing Leaf Litter of *Cistus incanus* and *Myrtus communis* in a Mediterranean Ecosystem. Soil Biology & Biochemistry, Pergamon Press (Great Britain), ISSN 0038-0717, 32: 1847-1855.
- 4A. Papa S., Curcio E., Lombardi A., Fioretto A. - 2000 – Dinamica degli enzimi durante la decomposizione di lettiera di foglie di *Quercus ilex* in un ecosistema mediterraneo. Atti S.It.E., Edizioni Zara (Parma), ISSN 0373-4137, "Il ruolo degli ecologi nella realtà ambientale del 2000": 24:18-26.
- 5A. Fioretto A., Papa S., Sorrentino G., Fuggi A. - 2001 - Decomposition of *Cistus incanus* leaf litter in a Mediterranean maquis ecosystem: mass loss, microbial enzyme activities and nutrient changes. Soil Biology & Biochemistry, Pergamon Press (Great Britain), ISSN 0038-0717, 33: 311-321.
- 6A. Fioretto A., Musacchio A., Papa S., Andolfi G., Pellegrino G., Virzo De Santo A. - 2001 - Nutrient dynamics in decomposing litter of three pine species in a Corsican Mediterranean pine forest. Journal of Mediterranean Ecology, Backhuys Publishers (Leiden), ISSN 1388-7904, 2: 63-73.
- 7A. Di Nardo C., Papa S., Fuggi A., Fioretto A. - 2001 - Changes in lignin and cellulose content during leaf litter decomposition in a Mediterranean ecosystem. Atti su CD dell'XI Congresso Nazionale della S.It.E., Società Italiana di Ecologia (Parma), ISSN 0373-4137, sez. 4 "Sistemi Agroforestali", 7pp.
- 8A. Papa S., Di Nardo C., Fioretto A. - 2001 - Phosphatase, α -glucosidase and α -galactosidase activities of microbial biomass in three soils of Mediterranean area. Atti su CD dell'XI Congresso Nazionale della S.It.E., Società Italiana di Ecologia (Parma), ISSN 0373-4137, sez. 4 "Sistemi Agroforestali", 6pp.
- 9A. Papa S., Curcio E., Lombardi A., D'Oriano P., Fioretto A. – 2002 - Soil microbial activity in three evergreen oak (*Quercus ilex*) woods in a Mediterranean area. In: Violante A., Huang P.M., Bollag J.M., Gianfreda L. (Eds) Developments in Soil Science, Elsevier Science B.V. (Amsterdam, Boston, ecc.) ISSN 0166-2481, Vol. 28B: 229-237.
- 10A. Fioretto A., Papa S., Aniello M., Merola R., Pellegrino A. - 2002 – Microbial activities in burned and unburned soils in a low shrubland ecosystem. In: Trabaud L. and Prodon R. (Eds) Fire and Biological Processes Backhuys Publishers, Leiden, The Netherlands, ISBN 90-5782-116-8, pp. 151-162.
- 11A. Fioretto A., Papa S., Pellegrino A., Di Nardo C. - 2002 - Risposta delle attività enzimatiche al passaggio del fuoco in un suolo di macchia bassa mediterranea. Atti 26 su CD del XII Congresso Nazionale della S.It.E., Società Italiana di Ecologia (Parma), ISSN 0373-4137, 8 pp. + errata corrige.

- 12A. Pellegrino A., Papa S., Fioretto A. - 2003 – Attività microbica in frazioni di suolo caratterizzate da particelle di diversa grandezza in area Mediterranea. Bollettino della Società Italiana della Scienza del suolo, Delta Grafica s.r.l. (Città di Castello, Perugia) ISSN 0390-4865, Vol. 52 (1-2): 287-298.
- 13A. Fioretto A., Papa S., Fuggi A. - 2003 - Litter fall and litter decomposition in a Mediterranean shrubland. *Biology and Fertility Soils* Springer-Verlag, ISSN 0178-2762, 39: 37-44.
- 14A. Pellegrino A., Papa S., Ricciardi R., Fasano L., Fioretto A. – 2003 - Interazioni fra tecniche agronomiche e attività microbica del suolo. Atti del Congresso della Società Italiana di Chimica agraria (SICA), Ancona, settembre 2003.
- 15A. Di Nardo C., Cinquegrana A., Papa S., Fuggi A., Fioretto A. - 2004 – Laccase and peroxidase isoenzymes during leaf litter decomposition of *Quercus ilex* in a Mediterranean ecosystem. *Soil Biology and Biochemistry*, Pergamon Press (Great Britain), ISSN 0038-0717.
- 16A. Fioretto A., Di Nardo C., Papa S., Fuggi A. - 2005 - Lignin and cellulose degradation during leaf litter decomposition of three litter species in a Mediterranean ecosystem. *Soil Biology and Biochemistry*, 37: 1083-1091.
- 17A. Fioretto A., Papa S., Pellegrino A. – 2005 - Effects of fire on soil respiration, ATP content and enzyme activities in Mediterranean maquis. *Applied Vegetation Sciences* 8: 13-20.
- 18A. Fioretto A., Papa S., Pellegrino A., Fuggi A. – 2007 – Decomposition dynamics of *Myrtus communis* and *Quercus ilex* leaf litter: mass loss, microbial activity and quality change. *Applied Soil Ecology* 36: 32-40.
- 19A. Fioretto A., Papa S., Ferrigno A., De Ruosi R., Pellegrino A., Fuggi A. - 2007 – Decomposition dynamics of different leaf litters in Mediterranean area. Proceedings “IUSS -9th International Meeting on Soils with Mediterranean type of climate” Aix-en-Provence, France 22-25 Ottobre 2007 pp. 5-8.
- 20A. Papa S., Clemente A., Gambuti R., Forgione R., Pellegrino A., Fioretto A. - 2007 – Enzyme activities and fungal biomass in mineral soil and leaf litter layers in a Mediterranean beech forest. Proceedings “IUSS -9th International Meeting on Soils with Mediterranean type of climate” Aix-en-Provence, France 22-25 Ottobre 2007 pp 1-4.
- 21A. Papa S., Pellegrino A., Ferrigno A., Fioretto A. - 2007 – Microbial activity of soil with different plant cover in Mediterranean area. *Studi Tridentini Sci. Nat., Acta Biologica*, 83: 227-231.
- 22A. Papa S., Pellegrino A., Fioretto A. - 2007 – The contribution of bacteria and fungi to soil biological activity in a *Pinus pinea* wood on Vesuvius mount. Proceedings of the International workshop “MEDPINE 3, Conservation, Regeneration and restoration of Mediterranean Pines and their ecosystems”, Bari, 26-30 sett. 2005 (Leone V., Lovreglio R., Ed.) CIHEAM/IAMB (International Centre for Advanced Mediterranean Agronomic Studies / Mediterranean Agronomic Institutes), N. 75: 167-173.
- 23A. Fioretto A., Musacchio A., Palermo A.M., Papa S., Pellegrino A. - 2007 – Soil biological activity in a *Pinus laricio* wood in Sila: a synthesis. Proceedings of the International workshop “MEDPINE 3, Conservation, Regeneration and restoration of Mediterranean Pines and their ecosystems”, Bari, 26-30 sett. 2005 (Leone V., Lovreglio R., Ed.) CIHEAM/IAMB (International Centre for Advanced Mediterranean Agronomic Studies / Mediterranean Agronomic Institutes), N. 75: 111-120.
- 24A. Papa S., Pellegrino A., Fioretto A. - 2008 - Microbial activity and quality changes during decomposition of *Quercus ilex* leaf litter in three Mediterranean woods. *Applied Soil Ecology* 40(3): 401-410.
- 25A. Fioretto A. Papa S., Pellegrino A., Fuggi A., 2008. Leaf litter decomposition dynamics in Mediterranean area. ISBN 1-60021-971-3 Nova Publishers, New York, *Soil Ecology Research Developments* 31-61.
- 26A. Papa S., Cerullo L., Di Monaco A., Bartoli G., Fioretto A. – 2009 - Trace elements in fruit and vegetable products. In: Dassenakis M., Pattee E., Vinello G., Vittori Antisari L. (Eds) *Environmental Quality*, pp. 199-204.
- 27A. Rutigliano F.A., Castaldi S., D’Ascoli R., Papa S., Canfora R., Marzaioli R., Fioretto A. – 2009 - Soil activities related to nitrogen cycle as affected by plant cover and seasonal variations in water availability in Mediterranean environment. *Applied Soil Ecology* 43: 40-46.

- 28A. Bartoli G., Papa S., Giaquinto P., Pezone E., Pellegrino A., Fioretto A. – 2009 - Trace metal contents in sediments of “Oai Salicelle-Lagnone” on Volturno river. *Acta Biologica, Studi Trentini di Scienze Naturali* vol. 86, pp. 1-6.
- 29A. Fioretto A., Papa S., Pellegrino A., Ferrigno A. – 2009 - Microbial activities in soils of a Mediterranean Ecosystem in different successional stages. *Soil Biology & Biochemistry* 41: 2061-2068.
- 30A. Papa S., Bartoli G., Di Martino D., Fioretto A. – 2010 - Occurrence of platinum in the leaves of holm-oak (*Quercus ilex* L.) from different sites (streets and squares) in the city of Caserta (Italy). *Fresenius Environmental Bulletin* 19(9): 210-2115.
- 31A. Papa S., Pellegrino A., Bartoli G., Fioretto A. - 2010 - Microbial activities and trace element contents in an urban soil. *Environmental Monitoring and Assessment* doi: 10.1007/s10661-009-0938-1 pp. 1-14.
- 32A. Incerti G., Bonanomi G., Giannino F., Rutigliano F.A., Piermatteo D., Castaldi S., De Marco A., Fierro A., Fioretto A., Maggi O., Papa S., Persiani A.M., Feoli E., Virzo De Santo A., Mazzoleni S. – 2011 –Litter decomposition in Mediterranean ecosystems: modelling the controlling role of climatic conditions and litter quality. *Applied Soil Ecology* 49: 148-157.
- 33A. Papa S., Bartoli G., Fioretto A. – 2012 – Trace metals in fruit and vegetable and their effects on human health. In: De Leon, D.A., Aragon PR. (Eds) *Trace Elements: environmental source, geochemistry and human health*, 1:55-74.
- 34A. Papa S., Bartoli G., Nacca F., D’Abrosca B., Cembrola E., Pellegrino A., Fiorentino A., Fuggi A., Fioretto A. – 2012 – Trace metals, peroxidase activity, PAHs contents and ecophysiological changes in *Quercus ilex* leaves in the urban area of Caserta (Italy). *Journal of Environmental Management* 113:501-509.
- 35A. Bartoli G., Papa S., Sagnella E., Fioretto A. – 2012 - Heavy metal content in sediments along the Calore river: relationships with physical-chemical characteristics. *Journal of Environmental Management* 95: 9-14.
- 36A. Papa S., Bartoli G., Schiavone M., Fioretto A. – 2012 - Cherry biodiversity of Campania region (Italy): contents of essential elements. In: Dassenakis M., Pattee E., Vinello G., Vittori Antisari L. (Eds) *Environmental Quality*, 9:19-26.
- 37A. Carillo P., Carotenuto C., Di Cristofaro F., Kafantaris I., Lubritto C., Minale M., Morrone B., Papa S., Woodrow P., - 2012 - DGGE analysis of buffalo manure eubacteria for hydrogen production: Effect of pH, temperature and pretreatments. *Molecular Biology Reports* 39 (12): 10193-10200
- 38A. Petriccione M., Di Patre D., Ferrante P., Papa S., Bartoli G., Fioretto A., Scortichini M., - 2013 - Effects of *Pseudomonas fluorescens* seed bioinoculation on heavy metal accumulation for *Mirabilis jalapa* phytoextraction in smelter-contaminated soil. *Water Air and Soil Pollution* 224:1645-1662
- 39A. Papa S., Cembrola E., Pellegrino A., Fuggi A., Fioretto A., - 2014 - Microbial enzyme activities, fungal biomass and quality of the litter and upper soil layer in a beech forest of south Italy. *European Journal of Soil Science* 65:274-285
- 40A. Carillo P., Carotenuto C., Di Cristofaro F., Lubritto C., Minale M., Mirto A., Morrone B., Papa S., Woodrow P., - 2014 - Bacterial and Archaeal Communities Influence on Methane Production. *Chemical Engineering Transactions* 37:859-864
41. Petriccione M., Papa S., Ciniglia C., - 2014 - Cell-programmed death induced by walnut husk washing waters in three horticultural crops. *Environmental Science and Pollution Research International* 21:3491-3502
- 42A. Papa S., Pellegrino A., Bartoli G., Ruosi R., Rianna S., Fuggi A., Fioretto A., - 2014 - Soil organic matter, nutrient distribution, fungal and microbial biomass and enzyme activities in a forest beech stand on the Apennines of southern Italy. *Plant Biosystems* 148 (6):1187-1198
- 43A. Papa S., Bartoli G., Vitale A., Barbato G., Fioretto A., - 2015 - Effects of Metal Contamination on Physical-Chemical Properties and Microbial Activities in *Phragmites Australis* Cav. rizosphere along the Sarno River (Italy). *Journal of Environmental Sciences* 1:1-10
- 44A. Innangi M., Schenk M.K., d’Alessandro F., Pinto S., Menta C., Papa S., Fioretto A., - 2015 - Field and microcosms decomposition dynamics of European beech leaf litter: Influence of climate, plant material and soil with focus on N and Mn. *Applied Soil Ecology* 93:88-97

- 45A. Guarino G., Carotenuto C., Di Cristofaro F., Papa S., Morrone B., Minale M., 2016. Does the C/N ratio really affect the bio-methane yield? A three years investigation of buffalo manure digestion. *Chemical Engineering Transactions* 49:463-468
- 46A. De Marco A., Fioretto A., Giordano M., Innangi M., Menta C., Papa S., Virzo De Santo A., - 2016 - C stocks in forest floor and mineral soil of two mediterranean beech forests. *FORESTS* 7 (8):1-20
- 47A. Papa S., Bartoli G., Alvarez-Romero M., Mottola S., Fioretto A., - 2017 - Trace metals accumulation in *Fragaria ananassa* and its possible use as a bioaccumulator. *Fresenius Environmental Bulletin* 26 (1):475-482
- 48A. Curcio E., Danise T., Innangi M., Coppola E., Alvarez-Romero M., Fioretto A., Papa S., - 2017 - Soil characterization and comparison of organic matter quality and quantity of two stands under different vegetation cover on monte Faito (Campania, S-Italy) *Fresenius Environmental Bulletin* 26 (1): 8-18
- 49A. Papa S., Bartoli G., Alvarez-Romero M., Barbato G., Vitale A., Ferrante C., Fioretto A., - 2017 - Trace metals accumulation and their translocation in *Phragmites australis* (Cav.) collected along the Sarno River. *Fresenius Environmental Bulletin* 26 (1): 467-474
- 50A. Fioretto A., Innangi M., De Marco A., Menta C., Papa S., Pellegrino A., Virzo De Santo A, 2018. Discriminating between Seasonal and Chemical Variation in Extracellular Enzyme Activities within Two Italian Beech Forests by Means of Multilevel Models. *Forests*, 9(4), 219; <https://doi.org/10.3390/f9040219>
- 51A. Del Buono A., D'Orta A., Tarro G., Rossi P., Papa S., Iodice L., Abbadessa G., Montano L., Portale G., Berretta M., DI FRANCIA R., 2018. Terra dei fuochi, the starting point". The role of prevention and complementary medicine in the clinical practice. *World Cancer Research Journal*, 5 (3): 1-7.
- 51A. Papa S., Bartoli G., Rivezzi G., Álvarez-Romero M., Dal Piaz F., De Tommasi N, Rivezzi G, Manduca P. Exposure to environmental contamination in women living in Naples and Caserta provinces (South Italy): hair trace metals analysis, first data. *Fresenius Environmental Bulletin*, accepted for publication
- 52A. Papa S., Bartoli G., Altieri S., Álvarez-Romero M., Lubritto C. Evaluation of trace elements content in buffalo mozzarella produced in Italian dairy farms: first data. *Fresenius Environmental Bulletin*, accepted for publication

FINAL REPORTS

- 1B. Radea K., Arianoutsou M., Fioretto A., Esposito A., Papa S. - 1996 - Litter accumulation and decomposition. Final Report ModMED I project. pp 79-88.
- 2B. Di Gennaro A., Sarnataro M., Palomba C., Radea K., Arianoutsou M., Papa S., Fioretto A. - 1998 - Soil and litter. Final Report ModMED II project. pp 58-65.
- 3B. Fioretto A., Fuggi A., Papa S., Esposito A. - 2001 - Leaf litter decomposition in mediterranean ecosystems. In: *Modelling Vegetation Dynamics and Degradation in Mediterranean Ecosystems: Final Report* (Mazzoleni, Colin, Rego, Muetzelfeldt, Eds)

PUBLICATIONS IN SCIENTIFIC BOOKS

- 1C. Effetti del fuoco sull'attività microbica del suolo. Autori Fioretto A., Papa S. In: C. Menta (Ed.), *Guida alla biologia ed alla ecologia del suolo: funzionalità, diversità biologica, indicatori*. Oasi, Alberto Perdisa, pp. 151-154, 2008
- 2C. La contaminazione del suolo ed effetti sui microrganismi. Autori Papa S., Fioretto A. In: C. Menta (Ed.), *Guida alla biologia ed alla ecologia del suolo: funzionalità, diversità biologica, indicatori*. Oasi, Alberto Perdisa, pp. 160-163, 2008.

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- 1D. *Ecologia*. Michael L. Chain, William D. Bowman, Sally D. Hacker 2017. Prima edizione Italiana condotta sulla III edizione di lingua inglese a cura di Antonietta Fioretto. Traduzione dei capitoli 1 e 15.