

Name: Sotirios

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Date and Place of Birth: 18/04/1977, Veroia, Greece

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Studies - Degrees:

- PhD in the Department of Agricultural and Environmental Chemistry of Università Cattolica del SacroCuore (Piacenza, Italy), specializing in targeted metagenomics and bioinformatics; degree conferred in 2012. Thesis title: “*Reflections of ecosystem services on the agricultural soil prokaryotic phylogenetic and functional diversity: PCR based approaches in prokaryotic ecology*”.
- MSc in Organic Farming, specialization in plant pathology and plant-microbe interactions and biocontrol at Wageningen University (The Netherlands); degree conferred in 2008;
- 5-year First Degree in Agricultural Sciences with specialization in plant production at the University of Thessaloniki (Greece; MSc-equivalent); degree conferred in 2003;

Current Appointment:

Research Associate, Future Industries Inst. (FII), University of South Australia (UniSA), Mawson Lakes, South Australia

Relevant employment history:

- Research Associate, FII (former CERAR) UniSA, since March 2014. Research Topic: Microbial ecology of metal stressed environments (soil, water, wastewater, biosolids) and horizontal gene transfer events in wastewater (supervised by E Donner and E Lombi). Tasks: experimental plan and protocol setup for screening microbial diversity and functions using high throughput sequencing (HTS) of phylogenetic marker genes combined with shotgun metagenomics/transcriptomics and associated bio-informatics/statistics; student supervision and training; management of the microbiology laboratory since May 1st 2015.
- Postdoctoral Researcher, Università Cattolica del SacroCuore, Feb 2012 – Feb 2014. Research topic: Effects of synthetic and natural pesticides on the soil microbial communities (SNAC project, supervised by M Trevisan). Tasks: protocol setup/performance for microbial diversity screening with HTS of phylogenetic marker genes and associated bio-informatics/statistics; genomics; student supervision and training.
- Research Assistant, Università Cattolica del SacroCuore, Dec 2011. Research topic: SNAC project. Tasks: protocol setup/performance, microbial diversity screening with HTS of phylogenetic marker genes and associated bio-informatics/statistics.
- Research Assistant, NIOO-KNAW (Netherlands Institute of Ecology; currently in Wageningen, the Netherlands, supervised by JH Leveau and J Raaijmakers), Aug – Nov 2007. Research topic: High throughput screening of large insert metagenomic libraries using fluorescent *in situ* hybridization (FISH) and flow cytometry. Tasks: handling of the metagenomic library (fosmids/*E. coli* hosts); FISH protocol development; epi-fluorescent microscopy; flow cytometry.

Industrial innovation:

- Contract and industry-academia collaboration with Advanced Analytical Technologies (AAT, Piacenza, Italy; www.aat-taa.eu); bioinformatics/statistics tasks; projects managed by Dr S Soldi.
- An industry-academia collaboration (UniSA-ECAS4) for the setup and application of molecular biology protocols in testing the antimicrobial efficacy of analytes.

Awards/grants:

Awards-Scholarships

- Italian Society of Agricultural Chemistry PhD thesis distinction award (500 €)
- PhD scholarship (~45,000 € total / 3 years)
- MSc scholarship (~21,000 € total / 2 years)

Networking grant

ECRNA – ERC Networking Award. Visiting researcher in the dep of Biotech. and Biochem. of the UTH (Thessaly, Greece) for systems biology (meta-genomics/transcriptomics/proteomics) on a microbial consortium able to rapidly degrade more than 50 % of the fungicide Thiabendazole in soil

(half life > 1 year in soil according to all previous reports) – June/July 2015 (Australian- A - \$5,550).

Project Grants Received

- Chief investigator (CI) in South Australian PRIF International Research Grant Program with partners from the University of Nireus (IWRC, University of Cyprus, Cyprus) and the Volcani Center (Agricultural Research Organisation, Israel), 2015-2020, (Donner, Lombi, Vasileidis, Thierry, Fatta-Kassinos, Cytryn). Total funding \$992,000 (SA PRIF: A\$400,000; UniSA: A\$180,000; Nireus A\$292,000; Volcani \$120,000). “Transfer and control of antibiotic resistance bacteria and their genes during wastewater treatment and reuse”.
- CI in South Australian PRIF Industry Linkage Research Grant with ECAS4 Industry Partner, 2014-2015, (Elmas, Donner, Nann, Lombi, Vasileidis). Total funding A\$232,800 (ECAS4: A\$140,000; SA PRIF: A\$92,800). “Sanitisation and disinfection using electrochemically generated disinfectants”.
- Australian Synchrotron Access Grant; 48 hours beamtime on the X-ray Absorption Spectroscopy beamline, scheduled for April 2015. “Role of soil properties in controlling silver selective pressure and its effects on soil bacterial communities.” (AS151/XAS/9123; Donner, Lombi, Vasileidis, Brunetti).

Student supervision and support:

- I have been actively engaged in research student co-supervision and training since the latter stages of my PhD. I have co-supervised 2 PhD students, 3 MSc students and several visiting students.
- Teaching support activities included training students and visiting researchers in microbial ecology associated molecular biology laboratory methods; teaching bioinformatics and associated statistical methods; assisting with the reporting of related research results; conducting student evaluation.

Academic reviewing activity:

- Regular reviewer for a large number of international scientific journals, including: Scientific Reports (Nature), Soil Biology and Biochemistry, Journal of Applied Microbiology, Applied Environmental Soil Science, BIOMED Research International, Environmental Science and Pollution Research, International Journal of Microbiology, Pedobiologia, Science of the Total Environment, The Scientific World Journal, Waste Management & Research.
- Associate Review Editor in Frontiers in Microbiology since July 2015

Publication list (*Stats excluding self-citations from ISI Web of Science and Incites™ Journal Citation Reports*)

(a) Scholarly book chapters

1. Voolaid V, Donner E, **Vasileiadis S**, Berendonk T (in press). Bacterial diversity and antibiotic resistance genes in wastewater treatment plant influents and effluents. In Antimicrobial resistance in the wastewater treatment process. (Hoboken, New Jersey, USA: Wiley Blackwell).
2. **Vasileiadis S**, Puglisi E, Cocconcelli PS, Trevisan M (2013). Screening phylogenetic and functional marker genes in soil microbial ecology. In Omics in soil science. Nannipieri, P, Pietramellara G and Renella G. eds. (Norfolk, UK: Caister Academic Press), pp 45-61.

(b) Peer-Reviewed journal articles

1. **Vasileiadis S**, Lombi E, Donner E (*in submission*) Metagenomic insights on functional changes of soil microbial communities after exposure to silver.
2. **Vasileiadis S**, Puglisi E, Trevisan M, Scheckel KG, Langdon KA, McLaughlin MJ, Lombi E, Donner E (2015) Changes in soil bacterial communities and diversity in response to long-term silver exposure. FEMS Microbiol Ecol, *Journal ranking: 37/123 Microbiology; Impact factor: 3.5 Citations: 1*
3. Soldi S, **Vasileiadis S**, Uggeri F, Campanale M, Morelli L, Fogli M, Calanni F, Grimaldi M, A G (2015). Modulation of the gut microbiota composition by rifaximin in non-constipated irritable bowel syndrome patients: a molecular approach. Clinical and Experimental Gastroenterology 8, 309-325
4. Perruchon C, Papadopoulou ES, Zouborlis S, Batiannis C, **Vasileiadis S**, Karpouzias DG (2015) Isolation of a diphenylamine-degrading bacterium and characterization of its metabolic capacities, bioremediation and bioaugmentation potential. Environ Sci Pollut Res 22, 19485-19496. *Journal*

- ranking: 24/119 in Pollution; Impact factor: 2.8*
5. Campos M, Perruchon C, **Vasileiadis S**, Menkissoglu-Spiroudi U, Karpouzas GD, Diez CM (2015). Isolation and characterization of bacteria from acidic pristine soil environment able to transform iprodione and 3,5-dichloraniline. *IntBiodeteriorBiodegrad* 104, 201-211. *Journal ranking: 65/225 in Environmental Sciences; Impact factor: 2.4 Citations: 1*
 6. Algora C, **Vasileiadis S**, Wasmund K, Trevisan M, Krüger M, Puglisi E, Adrian L (2015). Manganese and iron as structuring parameters of microbial communities in arctic marine sediments from the Baffin Bay. *FEMS Microbiol Ecol*. doi: 10.1093/femsec/fiv056. *Journal ranking: 37/123 in Microbiology; Impact factor: 3.5 Citations: 1*
 7. Perruchon C, Patsioura V, **Vasileiadis S**, Karpouzas DG (2015). Isolation and characterization of a *Sphingomonas* strain able to degrade the fungicide ortho-phenylphenol. *Pest ManagSci*, 72, 113-124 *Journal ranking: 11/83 in Agronomy; Impact factor: 2.8*
 8. Karpouzas DG, Kandeler E, Bru D, Friedel I, Auer Y, Kramer S, **Vasileiadis S**, Petric I, Udikovic-Kolic N, Djuric S, Martin-Laurent F (2014). A tiered assessment approach based on standardized methods to estimate the impact of nicosulfuron on the abundance and function of the soil microbial community. *Soil Biol Biochem* 75, 282-291 *Journal ranking: 2/34 in Soil Sciences; Impact factor: 4.1; Citations: 2*
 9. Suciú NA, Ferrari F, **Vasileiadis S**, Merli A, Capri E, Trevisan M (2013). Pesticides water decontamination in oxygen-limited conditions. *J Environ Sci Health, Part B* 48, 793-799, *Journal ranking: 155/225 in Environmental Sciences; Impact factor: 1.2; Citations: 1*
 10. Suciú NA, Tiberto F, **Vasileiadis S**, Lamastra L, Trevisan M (2013). Recycled paper-board for food contact materials: Contaminants suspected and migration into foods and food simulant. *Food Chem* 141, 4146-4151, *Journal ranking: 7/124 in Applied Chemistry; Impact factor: 4.0; Citations: 6*
 11. **Vasileiadis S**, Puglisi E, Arena M, Cappa F, van Veen JA, Cocconcelli PS, Trevisan M (2013). Soil microbial diversity patterns of a lowland spring environment. *FEMS MicrobiolEcol* 86, 172-184 *Journal ranking: 37/123 in Microbiology; Impact factor: 3.5; Citations: 4*
 12. **Vasileiadis S**, Coppolecchia D, Puglisi E, Balloi A, Mapelli F, Hamon RE, Daffonchio D, Trevisan M (2012). Response of ammonia oxidizing bacteria and archaea to acute zinc stress and different moisture regimes in soil. *MicrobEcol* 64: 1028-1037. *Journal ranking: 37/149 in Ecology; Impact factor: 3.2; Citations: 7*
 13. Puglisi E, **Vasileiadis S**, Demiris K, Bassi D, Karpouzas D, Capri E, Cocconcelli P, Trevisan M (2012). Impact of fungicides on the diversity and function of non-target ammonia-oxidizing microorganisms residing in a litter soil cover. *Microb Ecol* 64, 692-701. *Journal ranking: 37/149 in Ecology; Impact factor: 3.2; Citations: 11*
 14. **Vasileiadis S**, Puglisi E, Arena M, Cappa F, Cocconcelli PS, Trevisan M (2012). Soil bacterial diversity screening using single 16S rRNA gene V regions coupled with multi-million read generating sequencing technologies. *PLoS One* 7, e42671. *Journal ranking: 11/56 in Multidisciplinary Sciences; Impact factor: 3.0; Citations: 17*
 15. Puglisi E, Hamon R, **Vasileiadis S**, Coppolecchia D, Trevisan M (2011). Adaptation of soil microorganisms to trace element contamination: a review of mechanisms, methodologies, and consequences for risk assessment and remediation. *Crit Rev Environ SciTechnol* 42, 2435-2470 *Journal ranking: 30/225 in Environmental Sciences; Impact factor: 4.0; Citations: 3*
 16. Coppolecchia D, Puglisi E, **Vasileiadis S**, Suciú N, Hamon R, Maria Beone G, Trevisan M (2011). Relative sensitivity of different soil biological properties to zinc. *Soil Biol Biochem* 43, 1798-1807, *Journal ranking: 2/34 in Soil Sciences; Impact factor: 4.1; Citations: 12*
 17. Moszczynska A, **Vasileiadis S**, Zanetti M (2009). Pesticide researchers face formidable challenges: Annual Meeting Report of the Mediterranean Group of Pesticide Research, Piacenza, Italy, 13 and 14 November 2008. *TrAC Trends in Analytical Chemistry* 28: 135-140 *Journal ranking: 2/76 in Analytical Chemistry; Impact factor: 6.6*

(c) Conference oral presentations (presenter)

1. **Vasileiadis S**, Puglisi E, Trevisan M, Langdon K, McLaughlin M, Lombi E, Donner E (2014). Silver selective pressure on soil microbial communities revealed by high throughput sequencing diversity screening. SETAC Europe, Basel, Switzerland, May 11-15.

2. **Vasileiadis S**, Puglisi E, Trevisan M, Lombi E, Donner E (2013). Shifts in microbial diversity in Australian soils exposed to silver. XXXI Convegno Nazionale SICA, Napoli, September 16-17.
3. **Vasileiadis S**, Puglisi E, Arena M, Cappa F, Cocconcelli PS, Trevisan M (2012). Bacterial diversity assessment of highly complex soil environments using multi-million read generating sequencing technologies. 4th International Congress EUROSIL 2012, Soil Science for the Benefit for the Mankind and Environment, Bari, Italy, 02-06/07/2012.
4. **Vasileiadis S**, Balloi A, Mapelli F, Coppolecchia D, Puglisi E, Daffonchio D, Trevisan M, Hamon RE (2009). Biochemical and molecular insights in the adaptation of soil microcosms to high zinc concentrations. 19th International Symposium in Environmental Biogeochemistry, Hamburg, Germany, September 14-19.

(d) Conference oral presentations (co-author)

1. Pietta E, Gazzola S, **Vasileiadis S**, Montealgre MC, Roh JH, Murray BE, Cocconcelli PS (2014). Phylogenomic analyses and PBP5 progression of *Enterococcus faecium* strains isolated from food and other sources. ECCO XXXIII - Molecular Taxonomy from biodiversity to biotechnology 33rd Annual Meeting of the European Culture Collections' Organisation, Valencia, Spain, June 11-13.
2. Gazzola S, **Vasileiadis S**, Cocconcelli PS (2014). Genomic Analysis of the food isolate *Staphylococcus epidermidis* UC 7032. 2nd International Symposium for Fermented Meat, Valencia, Spain, October 20-23.
3. **Vasileiadis S**, Arena M, Puglisi E, Cappa F, Cocconcelli PS, Trevisan M (2011). Single hypervariable region usage for 16S rDNA diversity screening of complex soil environments. XXIX Convegno SICA, Foggia, Italy, September 21-23.
4. Puglisi E, **Vasileiadis S** (2011). High-throughput sequencing approaches to elucidate prokaryotic diversity patterns. International Conference on Soil Omics, Nanjing, China, November 19-23
5. Puglisi E, Coppolecchia D, **Vasileiadis S**, Hamon RE, Trevisan M (2011). Structural and functional responses of soil microbial communities to zinc stress as revealed by a combined biochemical and biomolecular approach. ICOBTE (International Conference on Biogeochemistry of Trace Elements), Firenze, Italy, July 3-7.
6. Puglisi E, **Vasileiadis S**, Cappa F, Cocconcelli PS, Trevisan M (2010). Applicazione di tecniche di sequenziamento di nuova generazione per analisi metagenomiche della biodiversità del suolo. XXIII Convegno SICA, Piacenza, Italy, September 20-21.
7. **Vasileiadis S**, Balloi A, Mapelli F, Coppolecchia D, Puglisi E, Daffonchio D, Trevisan M, Hamon RE (2010). Short-term responses of ammonia oxidizers to increasing Zn concentrations: a soil microcosm approach. XXVIII Convegno Nazionale della Società Italiana di Chimica Agraria, Piacenza, Italy, September 20-21.
8. Puglisi E, **Vasileiadis S**, Demiris C, Karpouzas DG, Capri E, Cocconcelli PS, Trevisan M (2010). Nitrifiers report on vineyard litter responses to fungicides. Med. Group of Pesticides Research (MGPR) 2010 Conference, Pesticides in the Mediterranean Area, Catania, November 11-12.
9. Puglisi E, **Vasileiadis S**, Cappa F, Trevisan M, Cocconcelli PS (2010). Meta-genomic analysis of soil microbial communities in the "fontanili" (low-land springs) environments. Soil Metagenomics 2010, Branschweig, Germany December 8-10.
10. Coppolecchia D, Puglisi E, **Vasileiadis S**, Suciù NA, Hamon RE, Trevisan M (2009). Modelli dose-risposta per valutare l'EC50 di attività biologiche in un suolo contaminato con zinco. XXVII Convegno Nazionale della Società Italiana di Chimica Agraria, Matera, Italy, September 15-18.
11. Puglisi E, Coppolecchia D, Balloi A, Mapelli F, Hamon RE, **Vasileiadis S**, Daffonchio D, Trevisan M (2009). Approfondimenti biochimici e molecolari dei meccanismi d'attesa del suolo alle concentrazioni di zinco. XXVII Convegno Nazionale della Società Italiana di Chimica Agraria, Matera, Italy, September 15-18.
12. Puglisi E, Hamon RE, **Vasileiadis S**, Coppolecchia D, Trevisan M (2009). Adaptation of soil microorganisms to trace element contamination: Mechanisms and consequences for risk assessment. 19th International Symposium in Environmental Biogeochemistry, Hamburg, Germany, September 14-19
13. van de Mortel JE, **Vasileiadis S**, Raaijmakers JM (2008). Natural cyclic lipopeptide surfactants: modes of action and effects on plant growth. Xth Meeting of the Working Group: Biological

control of fungal and bacterial plant pathogens, Interlaken, Switzerland, September 9-12.

(e) Conference posters

1. **Vasileiadis S**, Brunetti G, Marzouk E, Wakelin S, Kowalchuk GA, Lombi E, Donner E (2016). High-throughput screening of soil microbial activities and community structure responses to silver stress. 16th International Symposium on Microbial Ecology, Montreal, Canada, Aug 21-26.
2. **Vasileiadis S**, Eindhof T, Wakelin S, Kowalchuk GA, Lombi E, Donner E (2015). Bacterial community shifts and horizontal gene transfer in silver stressed soils. 13th Symposium on Bacterial Genetics and Ecology, Milan, Italy, June 14-18.
3. Perruchon C, Pantoleon A, Chatzinotas A, Donner E, **Vasileiadis S**, Karpouzas DG (2015). Deciphering the roles of the members of a bacterial consortium in the degradation of thiabendazole: combining SIP-DGGE with meta-omics. 13th Symposium on Bacterial Genetics and Ecology, Milan, Italy, June 14-18.
4. Perruchon C, Rousidou K, **Vasileiadis S**, Amoutzias G, Papadopoulou E, Tanou G, Molassiotis A, Karpouzas DG (2014). Isolation and characterization of bacteria able to degrade pesticides used in the fruit-packaging industry. First Global Soil Biodiversity Conference, Dijon, December 2-5.
5. **Vasileiadis S**, Puglisi E, Trevisan M, Scheckel KG, Langdon K, McLaughlin M, Lombi E, Donner E (2014). High throughput diversity screening reveals selection of soil Bacteria upon long-term silver exposure ISME 15, Seoul, South Korea, August 24-29.
6. Pappolla A, Ferrarini A, Pertile G, Puglisi E, Suci NA, Lamastra L, **Vasileiadis S**, Fornasier F, Karpouzas DG, Trevisan M (2014). Assessing the soil microbial toxicity of iprodione using advanced biochemical and molecular tools: Put the blame on the metabolite 3,5-dichloroaniline. 13th IUPAC International Congress of Pesticide Chemistry, San Francisco, USA, August 10-14.
7. Suci NA, Pappolla A, Ferrarini A, Puglisi E, **Vasileiadis S**, Fornasier F, Sulowicz S, Karpouzas DG, Trevisan M (2014). Are botanical pesticides not toxic to non-target organisms: Studying the effects of azadirachtin on soil microbes using advanced culture-independent approaches. 13th IUPAC International Congress of Pesticide Chemistry, San Francisco, USA, August 10-14.
8. **Vasileiadis S**, Puglisi E, Trevisan M, Langdon K, McLaughlin M, Lombi E, Donner E (2013). Shifts in microbial communities in response to long-term silver exposure. 2nd Thünen Symposium on Soil Metagenomics, Braunschweig, Germany, December 11-13.
9. Algora C, **Vasileiadis S**, Wasmund K, Krüger M, Trevisan M, Puglisi E, Adrian L (2013). Microbial diversity in arctic marine sediments along a shelf to basin transect of the Baffin Bay. FEMS 2013 5th Congress of European Microbiologists, Leipzig, Germany.
10. Perruchon C, **Vasileiadis S**, Puglisi E, Trevisan M, Karpouzas DG (2013). Isolation, characterization and genomic analysis of bacteria rapidly degrading the fungicide 2-phenylphenol. 2013 FEMS 5th Congress of European Microbiologists.
11. Schmidt M, **Vasileiadis S**, Puglisi E, Richnow HH, Trevisan M, Nijenhuis I (2013). Microbial communities along a gradient in a pilot-scale wetland subjected to monochlorobenzene contaminated groundwater. FEMS 2013 5th Congress of European Microbiologists, Leipzig, Germany.
12. **Vasileiadis S**, Puglisi E, Arena M, Cappa F, Cocconcelli PS, Trevisan M (2012). Assessment of 16S rDNA hypervariable regions for screening bacterial diversity in complex soil environments with multimillion sequence read generating technologies. 28th New Phytologist Symposium, Rhodes, 18-20 May.
13. Arena M, Puglisi E, **Vasileiadis S**, Zanetti M, Spiewak D, Cappa F, Cocconcelli PS, Trevisan M (2011). Bioremediation of phenanthrene contaminated soil by *Pseudomonas veronii* isolated from an Alps glacier. XXIX Convegno SICA, Foggia, Italy, September 21-23.
14. **Vasileiadis S**, Arena M, Puglisi E, Cappa F, Trevisan M, Cocconcelli PS (2011). V5 evaluation for single Bacterial 16S rDNA hypervariable region diversity based surveys of highly complex soil environments. Bacterial Genomics and Ecology (BAGECO), Corfu, Greece, May 28 - June 2.
15. Puglisi E, **Vasileiadis S**, Cappa F, Trevisan M, Cocconcelli PS (2011). Land-use management fingerprint on the soil microbial diversity. Fontanili: a case study. FEMS Conference, Geneva, Switzerland, June 26-30.

16. **Vasileiadis S**, Balloi A, Mapelli F, Coppolecchia D, Puglisi E, Daffonchio D, Trevisan M, Hamon RE (2010). Acute responses of the soil ammonia oxidizers to zinc. Structures and Processes of the Initial Ecosystem Development, Cottbus, Germany, September 20-24.
17. **Vasileiadis S**, Puglisi E, Karpouzas DG, Capri E, Cocconcelli PS, Trevisan M (2010). Structural and functional changes in nitrifying microbial communities during the degradation of fungicides in vineyard litter. International Conference on Environmental Pollution and Clean Bio/Phytoremediation, Pisa, Italy, June 16-19.
18. Puglisi E, **Vasileiadis S**, Coppolecchia D, Hamon RE, Trevisan M (2009). Correlating gene expression and enzymatic activities data: a case study of nitrification assessment in Zinc contaminated soils. FISV Conference, Riva del Garda, Italy, September 23-25.
19. Coppolecchia D, Puglisi E, **Vasileiadis S**, Suci NA, Hamon RE, Trevisan M (2009). Dose-response models to evaluate ecological doses (EC50) of biological activities in soils spiked with Zinc. International Symposium on Environmental Biogeochemistry (ISEB), Hamburg, Germany, September 14-18.