



Università degli Studi di Torino

Dept. of Agricultural, Forest and Food Sciences

Largo Paolo Braccini, 2
10095 Grugliasco (TO), Italy

Dr. Daniel Said Pullicino

Soil Biogeochemistry

Tel.: (+39).011.670.8685

Email: daniel.saidpullicino@unito.it

URL: www.disafa.unito.it

Curriculum Vitae

Daniel Said Pullicino currently holds a tenure-track Assistant Professor position in Agricultural Chemistry at the Department of Agricultural, Forest and Food Sciences of the University of Torino. He read for his *BSc(Hons)* and *MSc* degrees in Chemistry at the University of Malta, and in 2007 obtained his PhD in Agricultural Chemistry at the University of Perugia (Italy). In 2014 he was appointed Research Scientist at the Department of Agricultural, Forest and Food Sciences of the University of Torino, and in 2018 obtained his national scientific habilitation for the role of Full Processor in Agricultural Chemistry. He is currently a member of the Department's Research Commission and also serves as Associate Editor for the soil science journal *Geoderma*.

Research Focus: As a soil scientist, my research interests mainly develop around the biogeochemical cycles of carbon and nutrient elements in soil. I am interested in advancing our understanding of soil organic matter composition, stabilization and turnover, and the interactions between C, N and Fe cycling in terrestrial ecosystems, particularly those that experience redox cycling. Recent activities, carried out as part of the *Rice Agro-ecosystem and Environment Group* (www.raer.unito.it), have focused on unravelling the carbon source/sink functions and microbial nitrogen cycling in rice paddy soils. This field of research has global implications for greenhouse gas emissions, climate change and environmental pollution.

Teaching Focus: My lecturing commitments include courses in Agricultural Chemistry at undergraduate level and Nutrient Management in Agroecosystems at postgraduate level. The objectives of my teaching program is to create enthusiasm in students for the study of soil biogeochemistry, soil fertility and nutrient cycling, and to stimulate them to appreciate the importance of these topics for both agricultural production and environmental protection.

Affiliations to scientific societies

- Royal Society of Chemistry (RSC), London, UK
- International Union of Soil Sciences (IUSS)
- European Geosciences Union (EGU)
- Italian Soil Science Society (SISS)
- Italian Society of Agricultural Chemistry (SICA)

Recent Projects

- Promoting sustainable agricultural management practices for rice cultivation (RISTEC)
- Carbon allocation in vine: elucidating plant defence strategies to water stress (CarboSTRESS)
- Carbon source/sink functions of rice agro-ecosystems and implications for mitigating green-house gas emissions (CarboPAD)
- Greenhouse gas emissions from paddy rice soils under alternative irrigation management (GreenRice)
- Development of innovative processes for the energetic utilization of rice straw (RicEnergy)

Selected Publications

- Bertora C., Cucu M.A., Lerda C., Peyron M., Bardi L., Gorra R., Sacco D., Celi L., Said-Pullicino D. 2018. **Dissolved organic carbon cycling, methane emissions and related microbial populations in temperate rice paddies with contrasting straw and water management.** *Agriculture, Ecosystems & Environment* 265, 292-306.
- Sodano M., Lerda C., Nisticò R., Martin M., Magnacca G., Celi L., Said-Pullicino D. 2017. **Dissolved organic carbon retention by coprecipitation during the oxidation of ferrous iron.** *Geoderma* 307, 19-29.
- Houtermans M., Lehndorff E., Utami S.R., Said-Pullicino D., Romani M., Kolbl A., Kaiser K., Cao Z.H., Amelung W. 2017. **Nitrogen sequestration under long-term paddy management in soils developed on contrasting parent material.** *Biology and Fertility of Soils* 53, 837-848.
- Said-Pullicino D., Miniotti E.F., Sodano M., Bertora C., Lerda C., Chiaradia E.A., Romani M., Cesari de Maria S., Sacco D., Celi L. 2016. **Linking dissolved organic carbon cycling to organic carbon fluxes in rice paddies under different water management practices.** *Plant and Soil* 401, 273-290.
- Said-Pullicino D., Cucu M.A., Sodano M., Birk J.J., Glaser B., Celi L. 2014. **Nitrogen immobilization in paddy soils as affected by redox conditions and rice straw incorporation.** *Geoderma* 228-229, 44-53.