UNIVERSITÀ DEGLI STUDI DI MILANO
FACOLTÀ DI SCIENZE AGRARIE E ALIMENTARI

Curriculum Vitae - Francesca Mapelli

Photo

Education

- 10 February 2012: PhD in “Agricultural Ecology”, Department of Food, Environmental and Nutritional Sciences (DeFENS), University of Milan, Italy.
- 06 April 2005: Laurea diploma (equiv. to M.Sc.) in “Agricultural Biotechnology”, University of Milan, Italy.

Work experiences

- Nov 2016 - Oct 2019: Research Fellow (fixed-term contract “RTD-A”). Department of Food, Environmental and Nutritional Sciences (DeFENS), University of Milan, Italy.
- Jan 2012 - Oct 2016: Post-Doctoral Fellow, DeFENS, University of Milan, Italy.
- Jul 2006 - Jun 2008: Fellowship as post-graduate researcher at Department of Food Science and Microbiology (DISTAM), at the University of Milan, Italy. Contract funded by “Consiglio dei Diritti Genetici” (Rome, Italy).

Research interests

The scientific and research activity of Dr. Francesca Mapelli covers several areas under the field of microbial ecology and biotechnology, with a focus on extreme ecosystems. The research activity is performed in collaboration with national and international partners.
Major research lines are:

- microbial diversity and function in polluted environments. Dr. Francesca Mapelli is interested in the response of complex microbial communities to pollutant gradients and in their role during the treatment of contaminated matrices;

- roots' associated microbial communities and their role in supporting plant growth under harsh environmental conditions;
- microbe-plant and microbe-mineral interactions involved in the primary colonization of barren substrate released after glacier retreat, with a focus on in High Arctic moraines;
- prokaryotic diversity and system functioning in terrestrial and marine extreme environments, with a focus on marine ecosystems like Eastern Mediterranean Deep Hypersaline Anoxic Basins (DHABs).

Main publications

- **Mapelli**, F., Marasco, R., Fusi, M., Scaglia, B., Tsiamis, G., Rolli, E., Fodelianakis, S., Bourtzis, K., Ventura, S., Tambone, F., Adani, F., Borin, S., Daffonchio, D. 2018. "The stage of soil development modulates rhizosphere effect along a High Arctic desert chronosequence". ISME J, doi: 10.1038/s41396-017-0026-4.
- Vergani, L., **Mapelli**, F., et al. 2016. "Phyto-rhizoremediation of polychlorinated biphenyl contaminated soils: An outlook on plant-microbe beneficial interactions". Sci Total Environ (2016), doi: 10.1016/j.scitotenv.2016.09.218
- Bargiela*, R., **Mapelli***, et al. 2015. "Bacterial population and biodegradation potential in chronically crude oil-contaminated marine sites are strongly linked to temperature". Scientific Reports, doi: 10.1038/srep11651 (*equal contribution)
- **Mapelli**, F., et al. 2012. "Mineral–microbe interactions: biotechnological potential of bioweathering". Journal of Biotechnology, doi: 10.1016/j.jbiotec.2011.11.013.
- Borin, S., Brusetti, L., **Mapelli,** F., et al. 2009 "Sulfur cycling and methanogenesis primarily drive microbial colonization of the highly sulfidic Urania deep hypersaline basin". Proc. Natl. Acad. Sci. U.S.A., doi: 10.1073/pnas.0811984106.