Microbial footprints of tomato domestication

Sarango Flores, S.W.

Curriculum Vitae

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Stalin Wladimir Sarango Flores was born on April 23, 1986, in Loja, Ecuador. In 2011, he completed his undergraduate studies in Agronomy at the National University of Loja. In 2015, he obtained his master's degree in Agricultural Microbiology at the University of São Paulo (Brazil), where he developed his thesis under the supervision of Dr. Rodrigo Mendes at EMBRAPA-Environment (Brazilian Agricultural Research Corporation). This work allowed him to deepen his understanding of plant–microbe interactions and the role of beneficial microorganisms in agriculture. After completing his master's degree, he returned to Ecuador, where he expanded his experience in teaching and research. He later joined the research group of Dr. Pieter van 't Hof at Universidad San Francisco de Quito (USFQ), where he carried out experiments and data analyses involving commercial tomato seeds and natural soils from northern Ecuador. In 2018, he was awarded a PhD scholarship from the Ecuadorian National Secretariat of Higher Education, Science, Technology and Innovation (SENESCYT), and in 2019 began his doctoral research under the supervision of Prof. Dr. Jos M. Raaijmakers at the Netherlands Institute of Ecology (NIOO-KNAW) and the Institute of Biology at Leiden University. Later, he joined to the MiCRop project (www.microp.org). The findings of this work are presented in this thesis, entitled "*Microbial footprints of tomato domestication*". After the completion of his doctoral studies, he returned to Ecuador, where he has continued collaborating on academic and research activities. His motivation as a researcher lies in improving sustainable agriculture through the study and application of beneficial microorganisms. He strongly believes in the power of collaboration, knowledge sharing, and the integration of science with local practices to promote agricultural development, especially in rural areas where scientific knowledge can have a transformative impact on communities and the environment.

List of Publications

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Sarango Flores, S., Cordovez, V., Oyserman, B.O., Arias Giraldo, L.M, Stopnisek, N., Raaijmakers, J.M., van 't Hof, P. (2025). Microbiome-mediate resistance of wild tomato to the invasive insect *Prodiplosis longifila*. *Environmental Microbiology Reports, 17*(5). https://doi.org/10.1111/1758-2229.70190

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Sarango Flores, S., Cordovez, V., Oyserman, B.O., Stopnisek, N., Raaijmakers, J.M., van 't Hof, P. (2024). The Tomato's Tale: Exploring taxonomy, biogeography, domestication and microbiome for enhanced resilience. 2024. *Phytobiomes Journal, 8*(1), 2471–2906. doi: https://doi.org/10.1094/PBIOMES-09-23-0091-MF

Oyserman, B.O., **Sarango Flores, S.**, Griffioen, T. et al. (2022). Disentangling the genetic basis of rhizosphere microbiome assembly in tomato. *Nature Communications, 13*(3228). https://doi.org/10.1038/s41467-022-30849-9

Oyserman, B.O., Cordovez, V., **Sarango Flores, S.**, Leite, M.F.A., Nijveen, H., Medema, M.H., Raaijmakers, J.M. (2021). Extracting the GEMs: Genotype, Environment, and Microbiome interactions shaping host phenotypes. *Frontiers in Microbiology, 12*(11), 574053. 10.3389/fmicb.2020.574053

Barrera, S. E., **Sarango Flores, S.W.**, Montenegro-Gómez, S.P. (2019). The phyllosphere microbiome and its potential application in horticultural crops. A review. *Revista Colombiana de Ciencias Hortícolas, 13*(3), 384–396. https://doi.org/10.17584/rcch.2019v13i3.8405

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