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Impact of plant domestication on spermosphere and rhizosphere microbiome composition

Perez Jaramillo, J.E.

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About the author

Juan Esteban Pérez Jaramillo was born on 24th of March 1984 in Jericó, province of Antioquia, Colombia. In 2008 he concluded his undergraduate studies in Biology at the University of Antioquia. Then he started a Master in Biology at the same university, where he studied the vectors and reservoirs of leishmaniasis in the Darien region of Colombia. In 2011, he was awarded with an International Talent fellowship from the Navarra's Government in Spain to study a Master in Agrobiology in the Public University of Navarra. During his Master studies he worked under the supervision of Prof. Dr. Pedro Aparicio Tejo, and studied the effect of organic matter amendments, more specifically treated sewage sludges, on the enzymatic activities of the soil as well as in the N₂O emissions. After the conclusion of his studies in Spain, he went back to Colombia for a short period of time, where he was awarded with a PhD fellowship from the Colombian Department of Science, Technology and Innovation to study in an international university. Consequently, in 2013 he travelled to the Netherlands and started his doctoral research under the supervision of Prof. Dr. Jos Raaijmakers, initially at the Laboratory of Phytopathology of Wageningen University, and from 2014 at the Netherlands Institute of Ecology. The findings of his research are presented in this thesis. Early in 2018, he went back to Colombia where he started a position as research associate at the Program for the Study and Control of Tropical Diseases (PECET) from the University of Antioquia. Since February of 2019 he started a position as Professor of Biotechnology in the University of Antioquia, where he develops activities of teaching and research.

List of Publications

Pérez-Jaramillo JE, de Hollander M, Ramírez CA, Mendes R, Raaijmakers JM, Carrión VJ. Deciphering the microbiome assembly of wild and modern common bean (*Phaseolus vulgaris*) grown in native and agricultural soils from Colombia. (*Chapter 4, submitted*)

Carrión VJ, **Pérez-Jaramillo JE**, Cordovez V, de Hollander M, Tracanna V, Mendes LW, *et al.* Activation of the endophytic microbiome by fungal pathogen invasion. (*submitted*)

Rossmann M, **Pérez-Jaramillo JE**, Chiamonte JB, Kavamura VN, Dumack K, Fiore-Donno AM, *et al.* Cercozoa as a key factor in rhizosphere microbiome assembly. (*submitted*)

Hannula SE, Ma H, **Pérez-Jaramillo JE**, Pineda A, Bezemer M. Structure and ecological function of the soil microbiome affecting plant-soil feedbacks in the presence of a soil-borne pathogen. (*to be submitted*)

Pérez-Jaramillo JE, Carrión VJ, de Hollander M, Raaijmakers JM. 2018. A walk on the wild side of plant microbiomes. *Microbiome*. 6:143.

Pérez-Jaramillo JE, Carrión VJ, Bosse M, Ventrone Ferrão LF, de Hollander M, Franco Garcia AA, *et al.* 2017. Linking rhizosphere microbiome composition of wild and domesticated *Phaseolus vulgaris* to genotypic and root phenotypic traits. *ISME Journal* 11, 2244–2257.

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