

# Julia Bohórquez Rodríguez de Medina

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## Professional experience

- January 2023-present. Postdoctoral Researcher | Research Line Adaptation Lab, BC3 - Basque Centre for Climate Change - Klima Aldaketa Ikergai. Biscay. Spain.
- February 2022-December 2022. Environmental lecturer | Department of Applied and Environmental Sciences, NorthTec. Whangārei. New Zealand.
- October 2020-December 2021. Assistant Research Fellow within the project “*The ecology of diversification*” | Department of Botany, Otago University. Dunedin. New Zealand.
- December 2020-June 2021. Gardener at Tūhura Tropical Forest | Otago Museum. Dunedin
- May 2020-October 2020. Assistant Research Fellow within the project “*The symbiotic fungi and the distribution beech forests in New Zealand*” | Department of Botany, Otago University. Dunedin. New Zealand.
- October 2019-April 2020. Research Assistant within the project “*Ngā Kākano Whakatau/ Seed Restoration*” | Department of Botany, Otago University. Dunedin. New Zealand.
- July 2018-April 2019. Research Assistant within the project “*Ngā Kākano Whakatau/ Seed Restoration*” | Department of Botany, Otago University. Dunedin. New Zealand.

## Academic background

- Ph.D. in Ecology. Massey University, Manawatū, New Zealand. 7/2018  
[Thesis: Companion biota associated with \*Leptospermum scoparium\* \(mānuka; Myrtaceae\)](#)
- M.Sc. Engg. in Forestry. ETSIAM, Córdoba, Spain. 10/2011  
Thesis: Structure and dynamics of *Cedrus atlantica* (ENDL.) Manetti ex Carrière forests in the Middle Atlas (Ifrane, Morocco)
- B.Sc. Engg. in Forestry. Polytechnic University, Huelva, Spain. 9/2008  
Thesis: Plan to prevent wildfires in Campo Común de Abajo in Cartaya (Huelva, Spain)

## Research Publication

Laura G. van Galen; David A. Orlovich; Janice M. Lord; **Julia Bohorquez**; Andy R. Nilsen; Tina C. Summerfield; Matthew J. Larcombe. (Accepted). Zeta diversity differentiates factors driving community assembly of rare and common ectomycorrhizal fungi. *Molecular ecology*.

**Bohórquez, J.**, Nilsen, A.R., Larcombe, M.J., Orlovich D.A., Lord J.M. 2021. Spore viability and germination of ectomycorrhizal fungi from New Zealand and implications for forest restoration. *NZJ Botany*, p. 1-17.

**Bohórquez, J.**, Robertson, A.W., Millner, J. P., Gullan, P. J. 2019. Changes to the composition of scale insect species (Coccoomorpha: Eriococcidae) on New Zealand mānuka (*Leptospermum scoparium*; Myrtaceae) in the last seventy years. *NZJ Crop & Horticultural Science*, p. 310-318.

Navarro-Cerrillo, R. M., Manzanedo, R. D., **Bohórquez, J.** et al. 2013. Structure and spatiotemporal dynamics of cedar forests along a management gradient in the Middle Atlas, Morocco. *Forest Ecology and Management*, 289, p. 341-353.

### Manuscripts in preparation

**Bohórquez, J.**, Robertson, A.W., Millner, J. P. (Submission to the Journal of Applied Entomology). The effectiveness of an Insect Growth Regulator (IGR) on eriococcids associated with *Leptospermum scoparium*

**Bohórquez, J.**, McLenah, T., Johansen, R., Millner, J. P., Biggs, P., Robertson, A.W. (Submission to the Journal of Fungal Ecology). Cultivated and naturally established co-occurring *Leptospermum scoparium* plants share similar arbuscular and ectomycorrhizal fungal communities.

**Bohórquez, J.**, Robertson, A.W., Millner, J. P. (Submission to the Journal of Oecologia). The relative attractiveness of *Leptospermum scoparium* cultivars to honeybees.

### Co-authored talks

- van Galen, Orlovich D, Lord J, Nilsen A, Bohorquez J, Dutoit L, Summerfield T, Larcombe M. Mapping mycorrhizae with eDNA. New Zealand Ecological Conference, Dunedin, Dec 1, 2022.
- Lord J, Orlovich D, Larcombe M, **Bohorquez J.** 2018. Ngā Kākano Whakahau, the seeds project. University of Otago, Botany Department Research Colloquium, Dunedin, Nov 9, 2018.
- Lord J, Orlovich D, Larcombe M, **Bohorquez J.** 2018. Ngā Kākano Whakahau: to shelter the seeds. Invited presentation, Workshop on Landscape Scale Native Vegetation Restoration Projects in Central Otago/Lakes Districts, Cromwell, Sept 18, 2018.

## Seminars, Conferences and Posters

- 69th Entomological Society of New Zealand Conference, 7-9 April 2021, Dunedin, New Zealand (oral presentation). “Does scale insect infestation affect the attractiveness of mānuka to honey bees?”
- New Zealand Molecular Ecology Conference, 1-2 December 2017, the Catlins, New Zealand (oral presentation). “The root system of *Leptospermum scoparium*: a host for a richly diverse and variable mycorrhizal fungal community”.
- IAE Symposium “Visions for the future”, 10-12 April 2017, Palmerston North, New Zealand (oral presentation). “What attracts honeybees to mānuka flowers?”
- MPI PGP Conference “Food and Fibre”, 1<sup>st</sup> November 2016, Wellington, New Zealand (poster): “Flower power”.
- NZ Farm Forestry Association visit, 27<sup>th</sup> September 2016, Palmerston North, New Zealand (oral presentation). “Introduction to mānuka plantations”.
- XVI International Symposium on Scale Insect Studies, 13-16 June 2016, Catania, Italy (oral presentation): “The scale insects (Hemiptera: Coccoomorpha) present on *Leptospermum scoparium* (mānuka) in New Zealand”.
- XII Jornadas Forestales - Seminar Forestry plantations, 20<sup>th</sup> May 2016, Huelva, Spain (invited oral presentation): “Influence of companion biota on mānuka honey yield and quality”.
- 13<sup>th</sup> European Fungal Genetic Conference, 3-6 April 2016, Paris, France (poster): “Are AMF drivers of mānuka performance and mānuka honey?”
- New Zealand Fungal Foray, 17-23 May 2015, Aipiti, New Zealand (oral presentation): “Influence of mycorrhizal associations on mānuka growth and nectar yield”.
- Seminar “Forestry Plantations and derived products”, 11<sup>th</sup> May 2015, Huelva, Spain (invited oral presentation): “Influence of companion biota on mānuka honey yield and quality”.
- New Zealand Ecological Society Conference, 16-20 November 2014, Palmerston North, New Zealand (oral presentation): “Influence of companion biota on mānuka honey yield and quantity”.

## Scholarships and grants

- January 2018. Dissemination Grant supported by Massey University.
- December 2017. New Zealand Molecular Ecology Conference Travel Grant.
- June 2014-June 2017. PhD Scholarship funded by Massey University, Manuka Research Partnership (NZ) Limited (MRPL) and Comvita Limited.
- July 2012-Jan 2013. Scholarship to participate in the International Cooperation Program carry on Sakete ago-pastoral farm, Benin. Supported by Huelva Council.

- 15-28 April 2012. Grant supported by EU funds (FEDER) to participate in the Intensive Program "Role of Agriculture and Natural resources in Sustainable Rural Development". Aleksandras Stulginskis University, Kaunas, Lithuania.
- Oct-Dec 2011. Grant supported by AACID funds and Cordoba University to participate in the International Cooperation Program in Morocco "The effect of climate and site quality on individual tree growth and stand dynamics of *Cedrus atlantica* Manetti in the Middle Atlas (Ifrane, Morocco).
- July 2010. Grant supported by Landesforsten Rheinland-Pfalz to participate in the XVI International Forestry Workcamp. Kastellaun, Germany.
- Nov 2008-Jul 2009. Scholarship funded by EU and Huelva University to participate at the European Exchange Program Erasmus Practices at the Dutch Centre of Dendrochronology (RING Foundation), Amersfoort, The Netherlands.

### **Technical skills**

- Dendrochronology: core-sampling, tree-ring dating, slide-mounting (wood)
- Invertebrate identification
- Languages: Spanish (mother tongue), English (fluent), French (good)
- Microscopy: staining, slide-mounting (scale insects, roots, spores), taxonomic key use
- Molecular Biology: DNA extraction, PCR
- Statistical software: ANOVA, GLM, NMDS, PCA, regressions (R 3.3 within R Studio)

### **Training courses**

- 2022. First aid level 1 training course. Whangārei, New Zealand.
- 2012. Monitor of environmental education. Cádiz, Spain.
- 2011. Dendrochronology applied to ecology and forest management. Cordoba, Spain.
- 2011. V University and Development Cooperation Congress. Cádiz, Spain.
- 2010. VI Education for the Development Cycle. Cordoba, Spain.
- 2008. Helicopter Brigade Transport Technician Course. Huelva, Spain.
- 2008. Management of Protected Natural Areas Technician Course. Huelva, Spain.
- 2007. Defence against Wildfires course. Huelva, Spain.

### **Environmental work**

- 2016. Field assistant collecting litter decomposition bags, Hikurangi Range, New Zealand.
- 2014. Mammal monitoring Program volunteer, Bushy Park Sanctuary, New Zealand.
- 2011. Environmental assistant at APAN, Diriamba, Nicaragua.
- 2006. Environmental Workcamp volunteer at the Natural Park Arribes del Duero, Spain.

- 2006. Environmental Workcamp volunteer at the National Park Tablas de Daimiel, Spain.
- 2006. Conservation Program volunteer for the Mediterranean Forest. Spain.
- 2004. Environmental Workcamp volunteer at the Balearic Group of Ornithology, Spain.

## Media

- I+DESCUBRE News. 2018. Tree core sampling assistant. Cazorla, Spain. [I+DESCUBRE](#)
- MicroCos Newsletter. 2016. Talk to NZ Farm Forestry Association. Palmerston North.
- Infonuba News. 2016. Forestry plantation Seminar. Huelva, Spain. [XII Jornadas Forestales](#)
- 101 Aves de Puerto Real. 2012 (Bird guide). Cádiz, Spain. [101 Aves de Puerto Real](#)
- UCO Cooperacion Magazine. 2012. Tan cerca y tan lejos. Cooperation Program in Morocco. Cordoba, Spain. [UCO Cooperacion Magazine 2012](#)