

Agnes Sophie Dellinger, PhD

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Assistant Professor (Tenure Track)

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<https://agnesdellinger.org/>**Research interests**

I investigate the biotic and abiotic processes of plant diversification, with a particular focus on how plant-pollinator interactions drive trait evolution and change across varying environmental contexts. I use multifaceted, interdisciplinary approaches to test hypotheses on functional relationships between flowers and pollinators, including field experiments, structural morphology, geometric morphometrics, phylogenetic comparative methods, niche modelling and genomics.

Education2019/02 PhD, Botany, *University of Vienna*, Austria (PhD conferred on 26.02.2019)2013/06 MSc, Ecology, *Lund University*, Sweden and *University of Vienna*, Austria2010/06 BSc, Ecology, *University of Vienna*, Austria**Professional experience**2020/09 – 2022/03 Postdoctoral Research Associate (PI), *Univ. of Colorado Boulder*, USA (Smith lab)2021/07 – 2022/03 Postdoctoral Research Associate (PI), *University of Vienna* (Dullinger lab)since 2016/11 Research Associate, *Instituto Nacional de Biodiversidad* (INABIO), Ecuador2019/02 – 2021/06 Postdoctoral Research Associate, *University of Vienna* (Schönenberger lab), one month fieldwork in Colombia2017/10 Visiting Researcher, *New York Botanical Garden*, USA2015/01 – 2019/02 PhD candidate on *Pollination Biology and Floral Evolution of Merianieae (Melastomataceae)*, *University of Vienna* (Schönenberger lab), 13 months field- and herbarium work in Costa Rica and Ecuador (INABIO)2014/01-12 Research Associate on *The Ecology of Geographical Parthenogenesis* (<https://cvl.univie.ac.at/projects/the-ecology-of-geographical-parthenogenesis-in-alpine-plants/>), *University of Vienna* (Dullinger lab)2012 – 2015 Vegetation ecological fieldwork in Austria, France, Italy, Switzerland for different projects such as DISEQ-ALP (<https://cvl.univie.ac.at/projects/disequ-alp/>) and GLORIA (<https://gloria.ac.at/network/general>)2012/09-12 Pollination biological fieldwork in Ecuador (*San Francisco Scientific Station*, DFG)2010/05-07 Vegetation ecological fieldwork in Sweden (*Lund University*)

Scientific achievements

My research has resulted in eleven published first-, four co- and three last-author papers, and one first- and one second-author paper currently in press, one first-author paper submitted. I have presented my work in more than 20 national and international conferences and won prizes for best talks in four of those. I have been invited for six international seminar talks and initiated the virtual *Melastome Seminar Series* (<https://melastomeseminars.weebly.com/>) to connect Melastomataceae researchers across the world during the Covid-19 pandemic. I have independently acquired third-party funding for my research (€ 549,401.67) and successfully co-advised two BSc and six MSc students. I am currently co-advising four students (two PhD students, two MSc students) working on the pollination, floral evolution and abiotic niche differentiation of tropical and temperate plants.

Research funding

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| 2020 | FWF Hertha-Firnberg postdoctoral grant (role: PI, T-1186, <i>Modelling the a-/biotic drivers of a plant radiation</i> ; € 243,120.00; granted 2020/06; duration 2021/07 – 2024/06) |
| 2017 | FWF research grant (co-authored with Jürg Schönenberger, role: prae-doc and postdoctoral researcher, P-30669, <i>Pollinator shifts and floral evolution in the Merianieae (Melastomataceae)</i> ; € 299,977.67; granted 2017/06; duration 2017/10 – 2022/09) |
| 2016 | Fieldwork grant, University of Vienna, € 2,700 |
| 2012 | Fieldwork grant, University of Vienna, € 1,650 |

Awards

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| 2020 | Gertrud-Pleskot Publication Award, Faculty of Life Sciences, University of Vienna, € 7,000 |
| 2018 | Best student's talk, PopBio conference, GfÖ, Innsbruck, Austria |
| 2017 | Best student's talk, PopBio conference, GfÖ, Halle/Saale, Germany
Outstanding Student Award, International Botanical Congress, Szenszen, China, € 130 |
| 2013 | Best student's talk, NOBIS conference, Vienna, Austria, € 500
Best student's talk, SCAPE conference, Lammi, Finland |
| 2012 | Merit scholarship, University of Vienna, € 1,227 |
| 2011 | Merit scholarship, University of Vienna, € 727 |

Editorial activities

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| 2022 | Guest editor for American Journal of Botany (special issue: <i>Pollen as the link between phenotype and fitness</i> , co-editors: Vinicius de Brito, Nathan Muchhala, Øystein Opedal, Rocío Pérez-Barrales) |
| 2021 | Guest editor for <i>Melastomataceae systematics, ecology and evolution</i> , Springer, in press. |

Reviewer and referee activities

New Phytologist (4), Royal Society Proceedings B (1), Evolution (1), Annals of Botany (2), American Naturalist (1), Evolutionary Ecology (2), Journal of Evolutionary Biology (2), Botanical Journal of the

Linnean Society (1), Plant Biology (2), Apidologie (1), Journal of Pollination Biology (1), International Journal of Plant Sciences (1)

2020 Referee for the Rensch Prize by the Society of Biological Systematics (<https://www.gfbs-home.de/en/about-us/awards>)

Societal activities

since 2022 member of Botanical Society of America

since 2020 managing board member of NOBIS Austria (Network of Biological Systematics, <http://www.nobis-austria.at/>)

since 2013 member of NOBIS Austria

Committee activities

2022 Viva committee of Lilian Melo, PhD candidate of Dr. Vinicius Brito (Federal University of Uberlândia, Brazil)

since 2020 Thesis committee of Pauline Delpuech, PhD candidate of Dr. Sophie Nadot (University Paris-Saclay, France)

Ten most important scientific talks

2022: Pollinator shifts, Andean uplift and biogeography drive the diversification history of Merianieae (Melastomataceae). *University of Missouri St. Louis, USA* (invited seminar talk).

2021: Population structure in Neotropical plants: integrating pollination biology, mountain topography and the climatic niche. *Botany, virtual*.

2020: Bees are inefficient pollinators in cloud forests – investigating pollinator shifts in Merianieae. *Botany, virtual*.

2020: Linking flower morphology to pollen-release dynamics: buzz-pollination in Melastomataceae. *SCAPE, virtual*.

2019: Foraging preferences of bees and birds – assessing the adaptive value of heteranthery in flowers of Merianieae (Melastomataceae). *ESEB, Turku, Finland*.

2018: Cambios de polinizadores resultan en la reconstrucción de la flor. *XII Latin American Botanical Congress, Quito, Ecuador*.

2018: Beyond pollination syndromes: disentangling complex vertebrate pollination systems in the genus *Meriania* (Melastomataceae). *International Commission for Plant-Pollinator Relationships, Berlin, Germany*.

2017: Functional differentiation and trait convergence in accordance with pollinator shifts in Merianieae (Melastomataceae). *International Botanical Congress, Shenzhen, China*.

2014: Move out without a pollinator: Effects of the reproductive system on niche use in invasive species. *SCAPE, Tovetorp, Sweden*.

2013: Floral food-bodies and a bellows-like mechanism in bird-pollinated *Axinaea* (Melastomataceae). *SCAPE, Lammi, Finland*.

Cooperation partners

Dr. Fabián Michelangeli, New York Botanical Garden, USA: Melastomataceae systematics

Dr. Stacey Smith, University of Colorado Boulder, USA: pollination and macroevolution

Dr. Laura Lagomarsino, Louisiana State University, USA: plant-animal interactions and diversification

Dr. Frank Almeda, California Academy of Sciences, USA: Melastomataceae systematics

Dr. Darin Penneys, University of North Carolina Wilmington, USA: Melastomataceae systematics

Dr. Diana Fernández-Fernández, Instituto Nacional de Biodiversidad, Ecuador: Melastomataceae taxonomy

Dr. Mario Vallejo-Marín, University of Stirling, UK: buzz-pollination
 Dr. Stefan Dötterl, University of Salzburg, Austria: chemical ecology and pollination
 Dr. Stefan Dullinger, University of Vienna, Austria: environmental niche modelling
 Dr. Jürg Schönenberger, University of Vienna, Austria: flower evolution and morphology

Courses taught

2022 Guest lecturer in *Biogeography and Phylogenetics*, Colorado College
 2014 – 2020 *Interdisciplinary ecological field course*, University of Vienna (5 ECTS)
 2020 *Methods in pollination biology*, University of Vienna (5 ECTS)
 2019 – 2021 *Drivers of plant and fungal diversity: from genomes to biomes*, University of Vienna (10 ECTS)
 2012, 2013 Tutor in: *Diversity and systematics of higher plants*, University of Vienna (7 ECTS)

Current students

Paula Huber (University of Vienna*): *Pollination biology and floral morphology of Austrian Clematis* – MSc student.
 Katharina Kagerl (University of Vienna*): *Studying the abiotic and pollination niche of *Phyteuma orbiculare* along an elevational gradient* – MSc student.
 Constantin Kopper (University of Vienna*): *Pollination syndromes and floral diversity in *Melastomataceae** – PhD student.
 José Miguel Valverde-Espinoza (University of Vienna*): *Floral evolution in the tribe *Blakeeae* (*Melastomataceae*): a multifaceted approach to understanding floral diversification under variable selection regimes* – PhD student.

*co-advised with Dr. Jürg Schönenberger

List of theses co-advised

Constantin Kopper (University of Vienna*, 2021): *Testing pollination syndromes in *Melastomataceae** – Master thesis.
 José Miguel Valverde-Espinoza (University of Costa Rica, 2020): *Forma y función de los estambres de *Meriania macrophylla* (Benth.) Triana (*Melastomataceae*) e implicaciones en su polinización* – Licenciante thesis, co-advised with Dr. Eduardo Chacón.
 Fabian Polz (University of Vienna*, 2020): *Pollen release patterns of buzz-pollinated flowers with different architectures* – Bachelor thesis.
 Lisa Scheer (University of Salzburg, 2019): *Pollination syndromes: floral scent and nectar composition as key factors in Ecuadorian *Meriania* taxa* – Master thesis, co-advised with Dr. Stefan Dötterl.
 Laura Kanduth (University of Vienna*, 2019): *Urban pollination: Plant – pollinator interactions of two *Trifolium* species in relation to green area size* – Master thesis.
 Léa Pöllabauer (University of Vienna*, 2018): *Der adaptive Wert von Heterantherie bei *Adelobotrys adscendens* (*Melastomataceae*) – ein experimenteller Test zweier Hypothesen* – Bachelor thesis.

Michael Rameder (University of Vienna*, 2018): *Pollinator shifts and their relation to stamen morphology and seed number in the Meranieae (Melastomataceae)* – Diploma thesis.

Silvia Artuso (University of Padova, 2016): *Floral morphological analyses and pollination syndrome testing in selected species of the tribe Meranieae (Melastomataceae)* – Master thesis.

*co-advised with Dr. Jürg Schönenberger

Organized conferences and workshops

ECOFLO 2021 – Workshop: *Towards a conceptual frame to study floral form and function in pollination.* online, May 26t 2021 (co-organized with Rocío Pérez-Barrales (Univ. de Granada, Spain), Øystein Opedal (Univ. of Lund, Sweden).

GMAustria – 2019 *National Symposium Geometric Morphometrics Austria.* Vienna, Austria; March 27-28 2019 (co-organization with Marion Chartier, Nicole Grunstra, Anne Le-Maître, Sonja Windhager).

PopBio (GfÖ) 2018. Innsbruck, Austria; May 3-5 2018 (co-organization with Erschbamer, Schönschwetter, Pagitz, Schallhart, Margreiter, Nicklas, Pernfuß).

LAF Austria, 34th annual meeting. Strobl am Wolfgangsee, Austria; May 18-20 2018. Workshop on *Biologische Korridore – Bedeutung für Natur und Mensch im modernen Lateinamerika.*

Public outreach activities

Initiator and co-organizer of the virtual Melastome Seminar series (<https://melastomeseminars.weebly.com/>)

Nature featured publication of Master thesis (Dellinger et al. 2014, *Current Biology*) as Research Highlight, extensive international media coverage (e.g. *National Geographic*)

YouTube-Science commentary on Dellinger et al. 2014, *Current Biology* (<https://www.youtube.com/watch?v=nqQbK0Ypk5M>)

Takeover of GfÖ Twitter account with Florian Etl and Tropical Research Station La Gamba, featuring tropical pollination biology and conservation, February 2021

Science communication through public outreach to lay audience (e.g. newspaper articles:

<https://www.derstandard.at/story/2000113669370/acht-tiere-und-pflanzen-die-die-nacht-zum-tage-machen>), radio contributions (<https://oe1.orf.at/programm/20200417/595262/Unterschiedliche-Blueten-fuer-Bienen-Voegel-oder-Fledermaeuse>) and podcasts (<https://www.bienenpodcast.at/bg052/>).

Lay audience talks for adult education centres and private conservation societies, including:

- Naturschutzbund Niederösterreich (“Pflanzen und ihre Bestäuber“, 21.01.2021)
- Volkshochschule Planetarium Wien (“Biodiversity Series“, 03.11.2020)
- Naturkino Innsbruck, Westösterreichische Biologenvereinigung (commentary for “Seven worlds one planet – South America“, 23.02.2020)
- Naturkundliche Gesellschaft Mostviertel (“Von Blüten, Bienen, Vögeln, Fledermäusen und Mäusen – Bestäubungsbiologie in den Bergregenwäldern Ekuadors“, 09.12.2018)

Language Skills

German: native language

English: C3

Spanish: C1

French: B2

Swedish: B2

Latin

