

# Ryan P. O'Donnell

MYCOLOGIST & BOTANIST | PHD CANDIDATE

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## 🏛️ Education

<b>Doctor of Philosophy (Ecology &amp; Evolution)</b> AUSTRALIAN NATIONAL UNIVERSITY	2022–present
<b>Master of Scientific Studies (Biodiversity Science)</b> UNIVERSITY OF NEW ENGLAND	2019–2021
<b>Graduate Certificate in Science (Biodiversity Science)</b> UNIVERSITY OF NEW ENGLAND	2018–2019
<b>Bachelor of Music (Performance: Classical Voice)</b> SYDNEY CONSERVATORIUM OF MUSIC	2014–2017
<b>Bachelor of Arts in Communication (Media Arts and Production)</b> UNIVERSITY OF TECHNOLOGY SYDNEY	2011–2013

## 🧠 Skills

**ANALYTICAL:** PHYLOGENOMICS • DIVERGENCE TIME ESTIMATION • POPULATION GENETICS • BIOLOGICAL NOMENCLATURE & TAXONOMY • DATA VISUALISATION • MORPHOLOGICAL PHENETICS

**COMMUNICATIONS:** GRAPHIC DESIGN • PHOTOGRAPHY • VIDEO PRODUCTION • BOTANICAL ILLUSTRATION

**FIELD + LAB:** DNA EXTRACTION/SEQUENCING • PLANT IDENTIFICATION • FUNGAL ISOLATION AND CULTURING

**PROGRAMMING:** R • BASH/UNIX • LATEX

## 🏆 Grants

<b>National Taxonomy Research Grant Program (NTGRP)</b> AUSTRALIAN BIOLOGICAL RESOURCES STUDY (ABRS) <ul style="list-style-type: none"><li>Systematics of Australian mycorrhizal <i>Ceratobasidium</i> (Ceratobasidiaceae)</li></ul>	2023 \$16,818
<b>RSB Seed Funding Grant</b> AUSTRALIAN NATIONAL UNIVERSITY, RESEARCH SCHOOL OF BIOLOGY <ul style="list-style-type: none"><li>Evolutionary and population ecology of <i>Pterostylis</i> (Orchidaceae) and their fungal symbionts (<i>Ceratobasidium</i>, Ceratobasidiaceae)</li></ul>	2022 \$15,000
<b>AOF Research Grant 348/22</b> AUSTRALIAN ORCHID FOUNDATION <ul style="list-style-type: none"><li>The evolution and diversification of the Australian Diurideae: Understanding the influence of genome size and chromosome number (project cancelled and funds returned due to poor field season)</li></ul>	2022 \$10,000
<b>Hansjörg Eichler Scientific Research Fund</b> AUSTRALASIAN SYSTEMATIC BOTANY SOCIETY <ul style="list-style-type: none"><li>An integrative taxonomic study of the <i>Pterostylis macrosepala</i> (D.L.Jones) G.N.Backh. complex (Orchidaceae; Pterostylidinae)</li></ul>	2022 \$5,000
<b>N.C.W. Beadle Scholarship in Botany</b> UNIVERSITY OF NEW ENGLAND	2020 \$1,000

## 📖 Peer-Reviewed Publications

### FIRST-AUTHOR

**O'Donnell RP**, Wong DJ, Peakall R, Phillips RD, Linde CC (2024) *Discordance Down Under*: Combining phylogenomics & fungal symbioses to detangle difficult nodes in a diverse tribe of Australian terrestrial orchids. *Systematic Biology*, in press. doi:10.1093/sysbio/syae070.

**O'Donnell RP**, Bruhl JJ, Telford IR, Wilson TC, Zimmer H, Taseski GM, Andrew RL (2023) Molecular and morphological analyses support recognition of *Prostanthera volucris* (Lamiaceae), a new species from the Central Tablelands of New South Wales. *Australian Systematic Botany* 36, 1:1–20. doi:10.1071/SB22017.

**O'Donnell RP**, Wilson TC, Andrew RL, Telford IR, Taseski GM, Zimmer H, Bruhl JJ (2021) Molecular phylogenetic analysis of the *Prostanthera phyllicifolia* (Lamiaceae) assemblage resolves relationships of the 'Critically Endangered' *P. gilesii* and other putative new species. *Telopea* 24, 359–375. doi:10.7751/telopea15561.

## CO-AUTHOR

Hyde KD ... Zvyagina E (2024) The 2024 Outline of Fungi and fungus-like taxa. *Mycosphere* 15, 1:5146–6239. doi:10.5943/mycosphere/15/1/25.

Hyde KD ... Zucconi L (2023) Global consortium for the classification of fungi and fungus-like taxa. *Mycosphere* 14, 1:1960–2012. doi:10.5943/mycosphere/14/1/23.

## 🔍 Manuscripts In Review

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### FIRST-AUTHOR

**O'Donnell RP**, Linde CC, May TW (2024) Rise up, *Rhizoctonia*: moving to one fungus, one name in the Ceratobasidiaceae (Agaricomycetes; Cantharellales). *Persoonia* - in revision.

## 📖 Preprints

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**O'Donnell RP**, Bruhl JJ, Telford IR, Wilson TC, Zimmer H, Taseski GM, Andrew RL (accepted 2023) Molecular and morphological analyses support recognition of *Prostanthera volucris* (Lamiaceae), a new species from the Central Tablelands of New South Wales. doi:doi.org/10.1101/2021.12.21.473648.

## 📄 Other Publications

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**O'Donnell RP** (2022) Book Review: Presenting Science Concisely - Bruce Kirchoff. Australasian Systematic Botany Society Newsletter. 190: 27–28.

**O'Donnell RP** (2022) *Love Thy Neighbour* Science Write Now #6: Natural History and Historians

**O'Donnell RP** (2021) *Love Thy Neighbour* Boundless Writers Festival 2021

**O'Donnell RP** (2021) Selling systematics with storytelling: solving taxonomy's marketing problem. Australasian Systematic Botany Society Newsletter. 188: 29–30.

**O'Donnell RP** (2012) *John A Douglas - Body Fluid - The Seven Cycles* Exhibition essay - Chalkhorse Gallery

**O'Donnell RP** (2012) *James Oram - Moments of Must Have* Exhibition essay - Chalkhorse Gallery

## 👤 Conference Presentations

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**O'Donnell RP**, Wong DJ, Peakall R, Phillips RD, Linde CC (2024) “Fungal symbiont shifts inform subtribal relationships in terrestrial orchids”. International Mycological Congress 2024, 11–15 August 2024.

**O'Donnell RP**, Linde CC, May TW (2024) “Rise up, *Rhizoctonia*: moving to one fungus, one name in the Ceratobasidiaceae (Agaricomycetes; Cantharellales)” (Poster). International Mycological Congress 2024, 11–15 August 2024.

**O'Donnell RP**, Linde CC, May TW (2023) “Rise up, *Rhizoctonia*: moving to one fungus, one name in the Ceratobasidiaceae (Agaricomycetes; Cantharellales)”. Biosystematics 2023, 26–30 November 2023.

**O'Donnell RP**, Wong DJ, Peakall R, Phillips RD, Linde CC (2022) “Detangling the Diurideae: Phylogenomics and fungal symbionts provide an updated evolutionary framework”. Australasian Evolution Society 2022, 14–16 December 2022.

**O'Donnell RP**, Wong DJ, Peakall R, Phillips RD, Linde CC (2022) “Detangling the Diurideae: Phylogenomics and fungal symbionts provide an updated evolutionary framework”. Australasian Systematic Botany Society EMCR Conference 2022, 15–16 November 2022.

**O'Donnell RP**, Andrew RL, Telford IR, Wilson TC, Zimmer H, Taseski GM, Bruhl JJ (2021) “Morphological and molecular evidence aid resolution of *Prostanthera phyllicifolia* s. l. (Lamiaceae)”. Australasian Systematic Botany Society Annual Conference 2021, 12–16 July 2021. *Runner up: Pauline Ladiges Prize for best student presentation*.

## 🎤 Other Presentations & Panels

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**Invited Speaker:** ‘Discordance Down Under: Combining phylogenomics & fungal symbioses to detangle difficult nodes in a diverse tribe of Australian terrestrial orchids’ Australasian Mycological Society (AMS) Virtual Seminar Series 31/10/2024

**Invited Speaker & Panelist:** ‘An Evening With 500 Queer Scientists’ World Pride 2023

**Presenter:** ‘Walks & Talks: Orchids From Australia & Abroad’ 13/08/2022

**Presenter:** ‘Rare Plants - Large and Small’ with Costa Georgiadis 12/05/2021

**Panelist:** *Reel Science: Plants* - Sydney Science Trail/National Science Week 21/08/2021

## Teaching

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### AUSTRALIAN NATIONAL UNIVERSITY

- 2023 S1 **BIOL1003**: Biology 1: Evolution, Ecology and Genetics
- 2023 S1 **BIOL8291**: Research Presentation Skills
- 2022 S2 **BIOL3207/BIOL6207**: Data Science for Biologists
- 2022 S2 **BIOL2114/BIOL6114**: Evolution

## Awards & Scholarships

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- 2023 ANU University-Wide 3-Minute Thesis (3MT) Competition Grand Finalist
- 2023 ANU College of Science 3-Minute Thesis (3MT) Competition: First Place
- 2022 ANU Research School of Biology 3-Minute Thesis (3MT) Competition: People's Choice Award
- 2022 ANU Research School of Biology 3-Minute Thesis (3MT) Competition: Runner Up Prize
- 2022 Australian Government Research Training Program Scholarship (2022–2025)
- 2021 University of New England Vice-Chancellor's Scholar
- 2017 Berlin Opera Academy Robert Earl White Memorial Scholarship
- 2017 Berlin Opera Academy Elizabeth Luxon Memorial Scholarship
- 2017 Pacific Opera Young Artist Scholarship
- 2016 Estivo European Chamber Music Summer School Scholarship
- 2015 Best Comedic Film: Tampa Bay Underground Film Festival
- 2014 Best Short Film: Melbourne Underground Film Festival
- 2012 Firstdraft Gallery Emerging Writers Residency
- 2010 University of Sydney Kathleen Garnham Laurence Prize for Fine Arts

## Media

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**Radio Interview:** *Fuzzy Logic 2XXfm, Live at Floriade 2024* 15/09/2024

**Radio Interview:** *ABC Radio, Science Friction with Natasha Mitchell 'World Pride 2023 - Love Your Nature'* 17/02/2023

**Radio Interview:** *ABC Radio Evenings with Christine Anu* 21/8/2021

**Podcast Interview:** *Royal Botanic Garden Sydney 'Branch Out' Podcast - Starting in Science*

**Interview:** *The Music, With Sylvie*

**Interview:** *University of New England, #StudyLifeUNE*

## Exhibitions

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2021 **The Margaret Flockton Award**

## Professional Memberships

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2023–present **Australasian Mycological Society**

2020–present **Australasian Systematic Botany Society**