

Nuttapon (Nat) Pombubpa

Contact

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ResearchGate: https://www.researchgate.net/profile/Nuttapon_Pombubpa

Education

2015 – Ph.D. in Plant Pathology, University of California, Riverside, CA.
Advisor: Dr. Jason E. Stajich

Coursework: Intro to Plant pathology, Intro to Mycology, Advance Mycology, Bacterial and Viral diseases, Biological Soil Crusts of Joshua Tree National Park, Colloquium on The Principles of Plant Pathology, Community Ecology (Lichen Ecology), and Phytopathogens: Nematodes

2011 – 2015 B.A.S. (Summa cum laude) in Molecular, Cellular, and Developmental Biology (MCDB) and Ecology and Evolutionary Biology (EBIO)
Cumulative GPA 3.802; Dean's List in Fall 2011, Spring 2012, 2013, and 2014

Coursework: Intro to Cellular and Molecular Biology, Principles of Genetics, Molecular Cell Biology I, Molecular Cell Biology II, Evolutionary Biology, Microbial Diversity and Biosphere, Microbiology, General Chemistry 1, General Chemistry 2, Organic Chemistry 1, General Physics 1, General Physics 2, Statistic and Research Methods, Survey of Biochemistry, Math and Science Education

Honors and Awards

2010 – 2020 Royal Thai Government Scholarship to study Biology through Ph.D.
2020 Dissertation Year Program Award (Fall 2020)
2019 Earle C. Anthony Graduate Student Travel Award
2016 – 2019 L.J. Klotz Memorial Award 2019, 2018, 2017, and 2016
2016 – 2019 Graduate Student Association Travel Award 2019, 2018, 2017, and 2016
2018 Translational Mycology Research Award 2018, Mycological Society of America
2018 LTER graduate fellowship summer 2018, Jornada long-term ecological research
2018 Honorable Mention award: UCR Grad Slam 2018
2015 – 2017 Robert Lee Graduate Student Research Grant
2015 – Phi Beta Kappa Society member
2013 Undergraduate Research Opportunities Program, CU Boulder
2010 Special Award for immediate benefit to the local community in Science projects competition "Search for young scientists" in Penang, Malaysia

Publications

1. **Pombubpa, N.**, Pietrasiak, N., De Ley, P. and Stajich, J.E., 2020. Insights into drylands biocrust microbiome: geography, soil depth, and crust type affect biocrust microbial communities and networks in Mojave Desert, USA. *FEMS microbiology ecology*.

2. **Pombubpa, N.**, Kurbessoian, T., La Doux, T., Stajich, J.E., Pietrasiak, N., 2020. Exploring the Microbial Diversity in Biological Soil Crusts at Joshua Tree National Park (U.S. National Park Service). *National Parks Service*, U.S. Department of the Interior, www.nps.gov/articles/exploring-the-microbial-diversity-in-biological-soil-crusts-at-joshua-tree-national-park.htm.
3. Coleine, C., **Pombubpa, N.**, Zucconi, L., Onofri, S., Turchetti, B., Buzzini, P., Stajich, J.E. and Selbmann, L., 2020. Uncovered Microbial Diversity in Antarctic Cryptoendolithic Communities Sampling Three Representative Locations of the Victoria Land. *Microorganisms*, 8(6), p.942.
4. Coleine, C., Stajich, J.E., **Pombubpa, N.**, Zucconi, L., Onofri, S. and Selbmann, L., 2020. Sampling strategies to assess microbial diversity of Antarctic cryptoendolithic communities. *Polar Biology*, 43(3), pp.225-235.
5. Coleine, C., **Pombubpa, N.**, Zucconi, L., Onofri, S., Buzzini, P., Stajich, J.E. and Selbmann, L., 2020. Endolithic fungal species markers for hyper-stressing conditions in McMurdo Dry Valleys, Antarctica. *Life*, 10(2), p.13
6. Collins, C.G., Spasojevic, M., Alados, C., Aronson, E., Benavides, J., Cannone, N., Caviezel, C., Grau, O., Guo, H., Kudo, G., Kuhn, N., Müllerová, J., Phillips, M., **Pombubpa, N.**, Reverchon, F., Shulman, H., Stajich, J.E., Stokes, A., Weber, S., Diez, J., 2020. Below ground Impacts of Alpine Woody Encroachment are determined by Plant Traits, Local Climate and Soil Conditions. *In review*
7. Collins, C.G., Spasojevic, S. J., **Pombubpa, N.** and Diez, J.M., 2020. Beyond Enemy Release: Multiple microbial mechanisms influence plant-soil feedbacks and range expansion. *In review*
8. Warren, S.D., St Clair, L.L., Stark, L.R., Lewis, L.A., Stajich, J.E., **Pombubpa, N.**, Kurbessoian, T. and Aanderud, Z.T., 2019. Reproduction and Dispersal of Biological Soil Crust Organisms. *Frontiers in Ecology and Evolution*, 7, p.344.
9. Coleine, C., Stajich, J.E., **Pombubpa, N.**, Zucconi, L., Onofri, S., Canini, F., and Selbmann, L., 2019. Altitude and fungal diversity influence the structure of Antarctic cryptoendolithic Bacteria communities. *Environmental Microbiology Reports*, 11(5), pp.718-726
10. **Pombubpa, N.**, Kurbessoian, T., Stajich, J.E., and Pietrasiak, N., 2019. Exploring the Microbial Diversity in biological Soil Crusts at Joshua Tree National Park. *In review*
11. Collins, C.G., Stajich, J.E., Weber, S.E., **Pombubpa, N.** and Diez, J.M., 2018. Shrub range expansion alters diversity and distribution of soil fungal communities across an alpine elevation gradient. *Molecular ecology*, 27(10), pp.2461-2476.
12. Coleine, C., Zucconi, L., Onofri, S., **Pombubpa, N.**, Stajich, J.E. and Selbmann, L., 2018. Sun Exposure Shapes Functional Grouping of Fungi in Cryptoendolithic Antarctic Communities. *Life*, 8(2).
13. Coleine, C., Stajich, J.E., Zucconi, L., Onofri, S., **Pombubpa, N.**, Egidi, E., Franks, A., Buzzini, P. and Selbmann, L., 2018. Antarctic cryptoendolithic fungal communities are highly adapted and dominated by Lecanoromycetes and Dothideomycetes. *Frontiers in microbiology*, 9.

14. Abarenkov, K., Adams, R.I., Irinyi, L., Agan, A., Ambrosio, E., Antonelli, A., Bahram, M., Bengtsson-Palme, J., Bok, G., Cangren, P., Coimbra, V., Coleine, C., Gustafsson, C., He J., Hofmann, T., Kristiansson, E., Larsson, E., Larsson, T., Liu, Y., Martinsson, S., Meyer, W., Panova, M., **Pombubpa, N.**, Ritter, C., Ryberg, M., Svantesson, S., Scharn, R., Svensson, O., Töpel, M., Unterseher, M., Visagie, C., Wurzbacher, C., Taylor, AFS., Kõljalg, U., Schriml, L., Nilsson, R.H. 2016. Annotating public fungal ITS sequences from the built environment according to the MIxS-Built Environment standard—a report from a May 23-24, 2016 workshop (Gothenburg, Sweden). *MycKeys*, 16, p.1-15.

Research Experience

- 2015 – Graduate Student Researcher at Professor Jason E. Stajich Laboratory
Department of Microbiology & Plant Pathology, University of California Riverside
- 2014 – 2015 Honor Thesis Project at Professor Steven K. Schmidt Laboratory
Department of Ecology and Evolutionary Biology, University of Colorado Boulder
- 2014 Research Assistant at Professor Linda Kinkel Laboratory
Plant Pathology Department, University of Minnesota Twin Cities
- 2013 – 2014 Research Assistant at Professor Diana Nemergut Laboratory
The Institute of Arctic and Alpine Research, University of Colorado Boulder
- 2009 – 2010 High School Senior Science Project at Professor Pahol Kosiyachinda Laboratory
Department of Biology, Mahidol University, Thailand

Invited Seminars and conference presentations

- 2020 - Department of Microbiology, Mahidol University (Bangkok, Thailand)
- 2019 - The Fourth International Workshop on Biological Soil Crusts (Queensland, Australia)
- Mycological Society of America 2019 (Minneapolis, MN)
- Zygolife Genomic Workshop 2019 (Riverside, CA)
- 2018 - New Mexico State University (Las Cruces, NM)
- The 11th International Mycological Congress (San Juan, PR)
- Jornada LTER Desert Ecology Short-Course and Seminar (Las Cruces, NM)
- 2017 - Mycological Society of America 2017 (Athens, GA)
- 2016 - The Third International Workshop on Biological Soil Crusts (Moab, UT)
- Mycological Society of America 2016 (Berkeley, CA)
- Sloan Microbiology of the Built Environment Data Analysis (San Diego, CA)
- 2015 - Department of Ecology and Evolutionary Biology Honor Thesis Seminar (Boulder, CO)

Teaching Experience

- 2020 Teaching Assistant for Microbiology Laboratory (MCBL/BIOL 121L) in Spring 2020
- 2020 Teaching Assistant for Microbial evolution (MCBL 127) in Winter 2020
- 2019 Lecture and Laboratory instructor, “Fungi in Biocrust”, at Biological Soil Crusts of Joshua Tree National Park Fall 2019 Workshop (Joshua Tree National Park, CA) – November 2019
- 2019 Workshop instructor, “Microbiome Data Processing (using AMPtk)”, Zygolife Genomic Workshop 2019 at University of California Riverside (Riverside, CA) – September 2019
- 2019 Teaching Assistant for Microbiology Laboratory (MCBL/BIOL 121L) in Winter 2019
- 2018 Workshop instructor, “Microbial Community Analysis (MiSeq Next Generation Sequencing data) using High-Performance Computing Cluster”, at New Mexico State University (Las Cruces, NM) – July and September 2018
- 2018 Workshop instructor, “Introduction to Unix: command-line interface”, at New Mexico State University (Las Cruces, NM) – June 2018

Teaching Experience (continue)

- 2018 Lecture and Laboratory instructor, “Fungi in Biocrust”, at Biological Soil Crusts of Joshua Tree National Park Spring 2018 Workshop (Joshua Tree National Park, CA) – March 2018
- 2018 Guest instructor, “Biocrust at Granite Mountain, CA”, at Study USA class of the University of Mississippi (Granite Mountain, CA) – January 2018
- 2018 Teaching Assistant for Microbiology Laboratory (MCBL/BIOL 121L) in Winter 2018
- 2017 Teaching Assistant for Microbiology Laboratory (MCBL/BIOL 121L) in Winter 2017
- 2013 Learning Assistant for Intro to Molecular and Cellular Biology in Fall 2013

Extracurricular Activity

- 2017 – Thailand Educational Funding Network (TEF-Net) co-founder and www.tef-net.com webmaster
- 2015 – Plant Pathology Graduate Student Association, University of California Riverside
- 2018 Mycological Society of America Diversity & Inclusion student representative
- 2016 – 2017 Vice President of Plant Pathology Graduate Student Association
- 2016 – 2017 Plant Pathology Graduate Student Association Outreach Committee
- 2011 – 2015 Thai Student Association, University of Colorado Boulder
- 2013 – 2014 President of Thai Student Association at University of Colorado Boulder
- 2011 – 2013 Vice President of Thai Student Association at University of Colorado Boulder