

GENETICIST WITH EXPERTISE IN MICROBIOLOGY, ENTOMOLOGY & PLANT PATHOLOGY

Kira Lynn

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With ten years of research experience, I thrive on embracing new challenges, as evidenced by my diverse academic background. My MSc focused on entomology, microbiology, and plant pathology, while my PhD specialized in designing diagnostics for disease screening, epidemiology, and population genetics. Both degrees were undertaken as part of a joint venture between the international forestry company APRIL and the Forestry and Agricultural Biotechnology Institute (FABI). As the first female student to join this venture, I gained invaluable hands-on experience, conducting a significant portion of my research in Indonesia within the forestry sector and R&D department. Driven by my passion for overcoming challenges, I am now seeking new opportunities in the R&D or Biotech sector, with a particular focus on developing innovative technology for disease screening.

CORE COMPETENCIES

Technical Expertise	Communication Skills
Analytical Skills	Team Collaboration
Research Experience	Creativity
Problem-Solving Abilities	Flexible
Project Management	Adventurous

EDUCATION

Ph.D. Genetics <i>FABI, University of Pretoria April</i> Transmission and dispersal of <i>Ceratocystis</i> species in <i>Eucalyptus</i> plantations	2020- Current
M.Sc. Genetics, Cum laude <i>FABI, University of Pretoria April</i> <i>Fusarium</i> species associated with ambrosia beetles on <i>Acacia crassicarpa</i> in Indonesia	2018- 2020
B.Sc. Hons. Genetics, Cum laude <i>FABI, University of Pretoria</i> Identification methods to delineate species within <i>Ceratocystis</i> from Indonesia and Vietnam	2017
B.Sc. Human Physiology, Psychology & Genetics <i>University of Pretoria</i>	2014-2016

WORK EXPERIENCE

Laboratory Manager <i>FABI, University of Pretoria</i> <ul style="list-style-type: none">Manage daily operations, equipment maintenance, inventory, and ensure compliance with safety standards. An example of overcoming a challenge, was ensuring continued research output in the wake of a nationwide laboratory consumable shortage and organized power outages.Fostering collaboration, providing training, and ensuring adherence to best practices. An example of fostering a collaborative environment, is organizing laboratory coffee and a catch-up session.	2019 - present
Diagnostic Clinic Laboratory Technician <i>FABI</i> <ul style="list-style-type: none">Identify pathogens, assess disease presence, and provide accurate diagnoses.	2018 - 2021
Tutor <i>Department of Biochemistry, Genetics & Microbiology, University of Pretoria</i> <ul style="list-style-type: none">Practical sessions on introductory genetics topics, ensuring students grasp fundamental concepts and techniques.	2017

SUPERVISION & MANAGERIAL

Co-supervisor of Postgraduate Students

- MSc: Plant Pathology 2022-2024, Miss Lina Del Mar Angel Salazar
- BSc (Hons): Genetics 2024, Miss Michané Reutener

Project Manager for NSF Fungal Bio-invasions Working Party

- Organize and facilitate regular meetings, ensuring effective communication and collaboration among team members while monitoring and documenting the progress of project outputs.

RESEARCH OUTPUTS

Publications

[My Google Scholar Page](#)

Lynn KMT, Wingfield MJ, Durán A, Oliveira LSS, De Beer Z, Barnes I. (2021) Novel *Fusarium* mutualists of two *Euwallacea* species infesting *Acacia crassicarpa* in Indonesia. *Mycologia*. 10.1080/00275514.2021.1875708

Lynn KMT, Wingfield MJ, Durán A, Marincowitz S, Oliveira LSS, De Beer Z, Barnes I. (2020) *Euwallacea perbrevis* (Coleoptera: Curculionidae: Scolytinae), a confirmed pest on *Acacia crassicarpa* in Riau, Indonesia, and a new fungal symbiont; *Fusarium rekanum* sp. nov. *Antonie van Leeuwenhoek* 113(6):803-823. 10.1007/s10482-020-01392-8

Publications in Review

Lynn KMT, Wingfield MJ, Hammerbacher Almuth, Irene Barnes (2024) High-resolution melting curve analysis: A detection assay for *Ceratocystis eucalypticola* and *C. manginecans* in infected *Eucalyptus*. *Fungal Biology*

Lynn KMT, Wingfield MJ, Tarigan M, Durán A, Santos SA, Nel WJ, Barnes I. (2024) Bark, ambrosia, and sap beetles (Coleoptera: Curculionidae and Nitidulidae) may play a role in the movement of *Ceratocystis manginecans* in *Acacia* and *Eucalyptus* plantations in Riau, Indonesia. *Agricultural and Forest Entomology*.

Selected Oral & Poster Presentations

A full list is available upon request

1. Lynn KMT · Michael J. Wingfield · Alvaro Duran · Samuel A. Santos · Irene Barnes. The fungal pathogen *Ceratocystis manginecans* in Indonesian plantations is dispersed by wood boring beetles, their frass and sawdust and not by soil-borne inoculum. IUFRO WP 7.02.13 and 7.02.03 meeting (Sept 2023), Brazil. (Accepted for Oral, but couldn't attend thus was a Poster)
2. Lynn, K.M.T., Wingfield, M.J., Hammerbacher, A., Barnes, I. High-resolution melting curve analysis to detect several *Ceratocystis* species in the Latin American Clade. International conference of Plant Pathology (ICPP), Lyon France (Aug 2023). (Poster)
3. Lynn, K.M.T., Wingfield, M.J., Duran, A., de Beer, W., Barnes, I. Discovery of seven novel *Fusarium* species associated with two ambrosia beetle species in Indonesia and their global relevance as tree pests. National Symposium on Biological Invasions 2021.

RELEVANT WORKSHOPS ATTENDED

Workshop on the Biophysics of Fungal Spore Dispersal and its Relevance to Plant Disease	2024
NSF fungal bio-invasions workshop (RSA)	2022
Bark and ambrosia beetle workshop (University of Florida, USA & RSA)	2019, 2022, 2023
Advanced phylogenetic workshop from Inqaba BiotecTM	2018
Microsatellite workshop at University of Pretoria.	2017

GRANTS & AWARDS

FABI Mentorship Award	2023
NRF Freestanding, Innovation and Scarce Skills Development Fund Scholarship	2020-2023 (PhD) 2018-2019 (MSc)
Runner up for best student presentation at the Congress of the South Africa society of plant pathology	2019 & 2020
General Studentship Honours Bursary from the University of Pretoria	2017

SCIENTIFIC ENGAGEMENT

Engagement	Contribution	Year
IUFRO Division 7 Forest health webinar series- International Day of Women in Science	Technical assistant and chair for webinar series.	2024
IUFRO Division 7 Forest health webinar series The Ambrosia and Bark-beetle microbiome project	Technical assistant and chair for webinar series. Member of project and have helped compile training material	2021 2019
Polyphagous Shot Hole Borer (PSHB) workshop	Aided in organizing the workshop and training participants	2018
Junior science expo	Judge for competition	2018

OTHER SKILLS & QUALIFICATION

Advanced driving license

CPR certification from CPR4life

ABOUT ME

Having lived in diverse regions such as Tanzania, India, and South Africa, I thrive in multicultural environments and seek opportunities that allow me to engage with new experiences. I am a people person who enjoys engaging with new cultures and pursuing hobbies such as rock climbing, horse riding, dancing, and new culinary experiences.

REFERENCES

References available on request.