



RESEARCH GRANT FUND REPORT 2025

Jack Kimmel International Grant Program



The Jack Kimmel International Grant Program, championed by the Canadian TREE Fund, honors the late Jack Kimmel who was the former Director of Parks for the City of Toronto. He is remembered for his contribution of 46 years of leadership to the ISA and its Ontario chapter. Jack Kimmel grants provide much needed funding to arboriculture and urban forestry researchers all over the world. This grant is administered by TREE Fund, with participation from the Canadian TREE Fund in the evaluation process.

These grants are available to researchers whose work is primarily outside of the United States.



TOTAL DONATIONS

January 1 – December 31, 2025: \$8,875

Gifts over \$500

- Canadian TREE Fund



AWARDED IN 2025

2025 Jack Kimmel International Grant was awarded to Mohammad A. Rahman of the University of Melbourne, Australia for the project, "Traitbased Assessment of Urban Tree Health and Climate Resilience." for **\$10,000**.

1

APPLICATIONS

XXX applications were received for this grant during the 2025 Fall Grant Application Cycle.

2

ADDITIONAL REPORTS

- 2021 Recipient, Justin Morgenroth, PhD completed project - <https://treefund.org/archives/21113>
- 2021 Recipient, Justin Morgenroth, PhD and Andrew Benson PhD presented during TREE Fund Webinar Series, November Webinar - https://www.youtube.com/watch?v=F57lBTI26E&embeds_referring_euri=https%3A%2F%2Ftreefund.org%2F with 1,255 people in attendance
- 2022 Recipient, Huade Guan, PhD, presented during TREE Fund Webinar Series in March 2025 - <https://youtu.be/Xrfuq240mdk> with 847 people in attendance
- 2023 Recipient, Petr Hedenec, PhD completed project - <https://treefund.org/archives/23150>

AWARDEE DETAILS

At present, most research quantifies the magnitude of cooling benefits associated with particular species or species stands, yet these effects are rarely linked to underlying, measurable functional traits. This limits professionals from making evidence-based planting decisions for cooling benefits in the future. Less is known about how common urban trees adjust their traits across strong climate and microclimate gradients, leaving cities vulnerable to canopy decline and reduced ecosystem services when they are needed most.

The proposed research will address these challenges through a comprehensive framework. Focusing on four widely planted species across Melbourne's rainfall and temperature gradient, the project will integrate high resolution canopy mapping (using terrestrial laser scanning, TLS) with detailed morphological and physiological trait measurements and tree health assessments (foliar nutrient analysis and crown density). We will take simultaneous spot measurements of soil moisture and microclimate at all sites on hot summer days and use process-based growth and energy-balance modelling. By linking structure and physiology to actual cooling effects, the project will identify which traits best predict resilience to heat, drought, and sustained thermal benefits.

