



## IUSSI - North American Section

The William L. and Ruth D. Nutting Research Grant supports graduate student and postdoc research in the field of basic termite biology. It offers funding to a student or postdoc whose proposed research shows the greatest potential to increase our understanding of this important group of social insects, with an emphasis on projects with clearly identified hypotheses that address specific biological questions.

The 2023 winner of the Nutting Grant is **Arjun Khadka**, who will receive a \$2,500 grant to support his research. Arjun received his Bachelor's Degree in Entomology from Tribhuvan University, Nepal, and Master's Degree in Entomology from University of Florida. He is currently a Ph.D. student at Louisiana State University under the direction of Qian "Karen" Sun. The title of Arjun's project is "Physiological and molecular characterization of ageing and reproduction in male termites". Social insects are fascinating models for studying aging due to the presence of a long-lived queen caste, but the king caste in termite colonies received much less attention. Arjun proposes to investigate the somatic maintenance and reproduction tradeoffs by comparing kings and male workers in the Formosan subterranean termite, *Coptotermes formosanus*. This study integrates morphological observation of reproductive tissues, physiological analysis of oxidative stress, and molecular characterization of aging-related pathways. The Awards Committee wishes to recognize his well-contextualized proposal and his dedication to addressing a major knowledge gap in the aging and reproduction of termites.

### **IUSSI-NAS Awards Committee**

Qian "Karen" Sun, Olav Rueppell (co-chairs)

Matina Donaldson-Matasci, Etya Amsalem, Elizabeth Tibbetts, Joshua King