

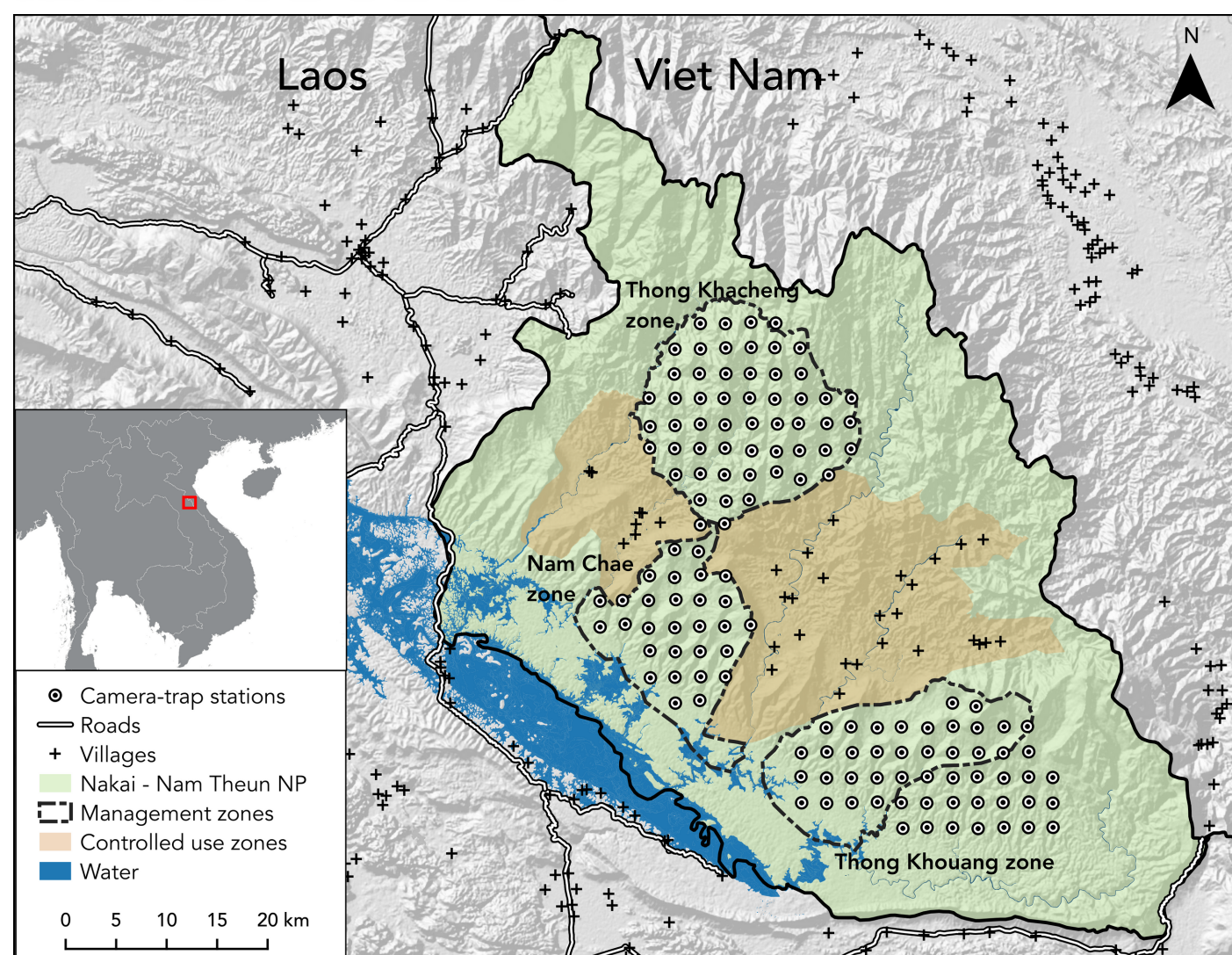
Camera-trapping reveals new insights in the ecology of three sympatric muntjacs in an overhunted biodiversity hotspot

Ioannis Alexiou · Jesse F. Abrams · Camille N. Z. Coudrat · Chanthalaphone Nanthavong
An Nguyen · Jürgen Niedballa · Andreas Wilting · Andrew Tilker. 2022. *Mammalian Biology*

INTRODUCTION

- **Annamites ecoregion:** exceptionally high muntjac richness and endemism:
 - **Large-antlered muntjac** *Muntiacus vuquangensis* (endemic)
 - **Northern red muntjac** *M. vaginalis*
 - **Annamite dark muntjac species complex** *M. rooseveltorum/truongsonensis* (endemic)
- To protect the remaining populations of muntjacs in the Annamites, it is important to gather information on their ecology, distribution, and population status in priority areas.

METHODOLOGY

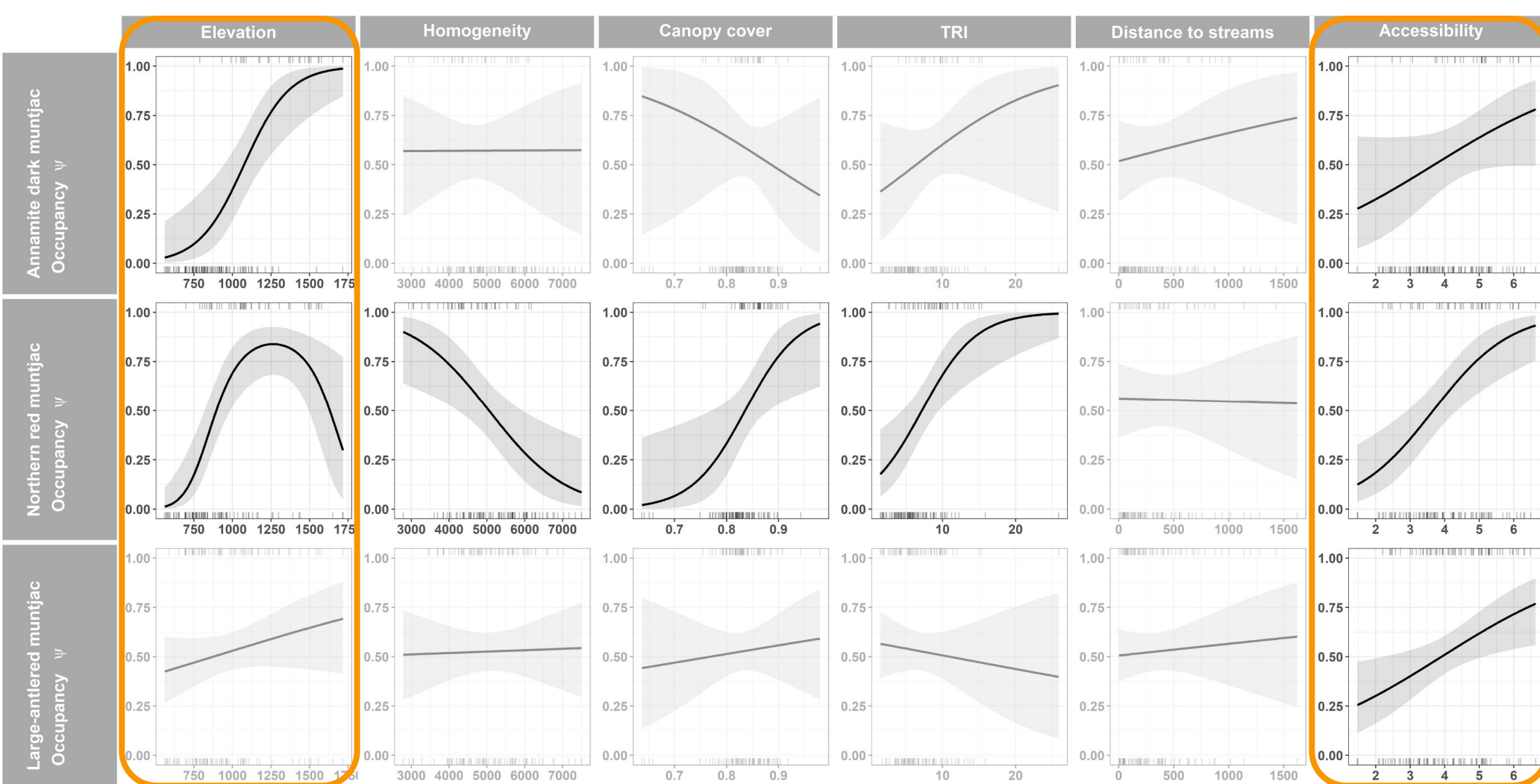


- **Systematic landscape-scale camera-trapping in Nakai-Nam Theun National Park:**
 - Dry season of 2018 (February 2018 to May 2018) and 2019 (November 2018 to May 2019)
 - 131 camera stations 2.5 km apart (1-2 cameras/station, 256 operational cameras)
 - Total survey effort = 20,183 camera-trap nights

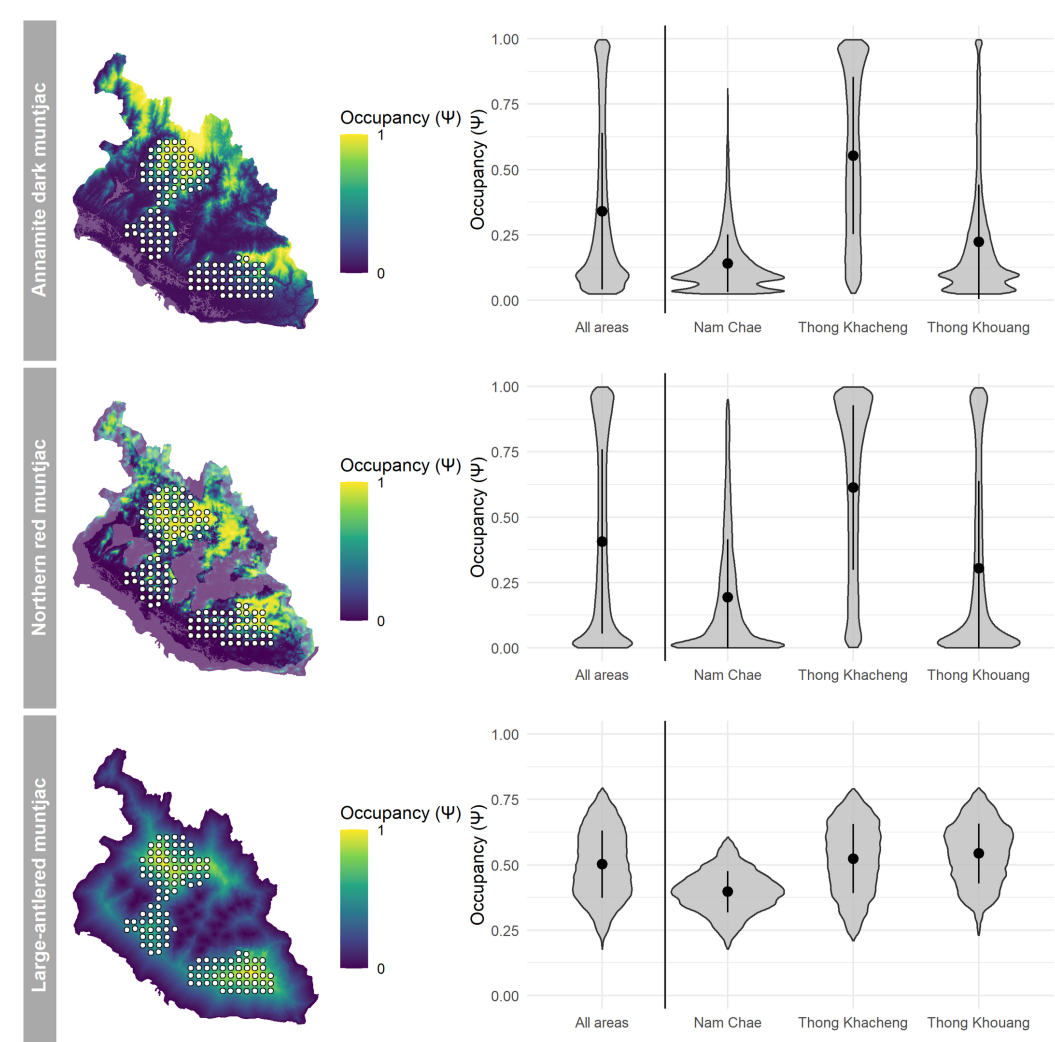
- **Aims:**
 - Understand muntjac ecology and distribution
 - Population trends monitoring



MAIN FINDINGS & CONCLUSIONS



- **Annamite dark muntjac:**
 - Predominantly found at **higher elevations**: consistent aspect of Annamite dark muntjac ecology
 - Percentage of Area Occupied = **0.28** (0.18-0.39)
- **Northern red muntjac:**
 - Occupancy peaked at approximately 1250 m asl, but declined at elevations above this
 - Percentage of Area Occupied = **0.27** (0.15-0.42)
- **Large-antlered muntjac:**
 - Found at **higher elevations**: contrasting from previous assumptions that the species mainly occurs below 1000 m asl
 - **Widespread** across the elevational range in NNT NP
 - Occupancy was strongly influenced by accessibility and was the only one of the three muntjacs **affected exclusively by anthropogenic factors**.
 - Percentage of Area Occupied = **0.33** (0.22-0.49)



TAKE AWAY MESSAGE

- Nakai-Nam Theun NP is a **global stronghold for large-antlered muntjac**
- Sharp contrast to the situation across most of the species' range, especially in Viet Nam