

**MS Thesis**  
**Department of Environmental Science and Policy**  
**College of Science**  
**George Mason University**

**Candidate:** Kelly Chimpen Mac Leod

**Defense Date and Time:** April 10, 2025, at 12:45pm

**Defense Location:** Enterprise Hall, Room 418 & virtual on Zoom

**Title:** Assessment of African rhinoceros temperament and its implications for management

**Thesis Director:** Dr. Elizabeth Freeman

**Committee:** Dr. Lara Metrione, Dr. Kathleen Hunt, Dr. David Luther

**ABSTRACT**

The temperament and mental state of an animal are critical components of its wellbeing yet are not frequently evaluated. The temperament of white and black rhinos was assessed using keeper surveys and novel object tests. Survey traits were clustered into boldness/shyness, activity/inactivity, and anthrophilia/anthrophobia for both species, plus stoicism/reactivity in white rhinos. Furthermore, surveys were best at characterizing boldness/shyness in both species and anthrophilia/anthrophobia in black rhinos, while novel object tests were best at characterizing exploration in both species, plus activity in black rhinos. Consideration of temperament expression allows tailoring expectations for daily behaviors, interactions with enrichment, conspecifics, and people.