MS Thesis

Department of Environmental Science and Policy

College of Science George Mason University

Candidate: Sandra Seipel

Defense Date and Time: April 15, 2024, 10:00am

Defense Location: Hybrid: David King Hall, Room 3006 and virtually on Zoom

Title: Drivers of geophagy of the lowland tapir (Tapirus terrestris) at Amazonian interior forest

mineral licks

Thesis Director: Dr. Diego Valderrama

Committee: Dr. T. Reid Nelson, Dr. R. Chris Jones

ABSTRACT

Fisheries are complex social-ecological systems requiring context dependent management

approaches to achieve sustainability. The Fishery Performance Indicators evaluate fisheries for

three pillars of sustainability, producing Triple Bottom Line outcome metrics in economic,

community, and ecological sustainability. This thesis research applied multivariate data analysis

techniques to an FPI dataset of 153 fisheries provided by the University of Florida revealing

insights on TBL outcomes on a global scale. I examined the cross-sectional links between 17

enabling factors and the TBL sustainability scores, investigating the differences between

developing and developed countries to understand their limitations and identify areas of

management that need improvement.