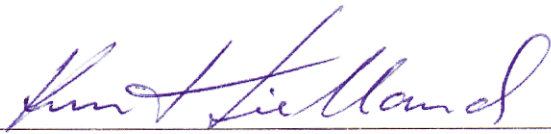


LATITUDINAL PATTERNS OF AMINO ACID CYCLING AND PLANT
N UPTAKE AMONG NORTH AMERICAN FOREST ECOSYSTEMS


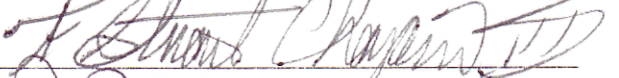
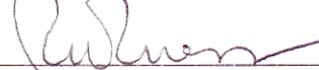
By

Jack W. McFarland

RECOMMENDED:










Advisory Committee Chair

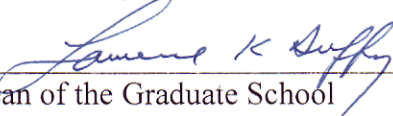


Chair, Department of Biology and Wildlife

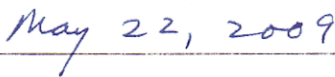
APPROVED:



Dean, College of Natural Science and Mathematics



Dean of the Graduate School



Date