

Public Abstract

First Name:Daniel

Middle Name:Jaeger

Last Name:Hocking

Adviser's First Name:Raymond

Adviser's Last Name:Semlitsch

Co-Adviser's First Name:

Co-Adviser's Last Name:

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Title:GRAY TREEFROG BREEDING SITE SELECTION AND OFFSPRING PERFORMANCE IN RESPONSE TO FOREST MANAGEMENT

Amphibians are declining throughout the world. These declines have led scientists to research possible causes in an attempt to understand and mediate the threats. Although many threats have been identified, habitat loss and alteration remain the largest causes of amphibian declines and loss of biodiversity in general. My research aims to elucidate some of the ways that amphibians respond to habitat alteration in the form of timber management. I focus on gray treefrog breeding site selection in response to clearcutting. I found that although gray treefrogs live in trees they prefer to breed in ponds located in recent clearcuts. However, females were less willing to go even 50 m into a clearcut to lay eggs in a breeding pond. I found that the gray treefrog tadpoles were most successful in pond near the forest where they received some shade. These results suggest that gray treefrog populations may be balanced with timber harvesting if the clearcuts around ponds are small (<100 m diameter) and there is sufficient forest nearby for the adults.