



PhD Dissertation Defense of Erangi Heenkenda

Population Genomics and the Conservation of Aquatic Species

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Abstract

This dissertation is focused on using genomic techniques to generate data valuable for the conservation and management of aquatic ecosystems.

In Chapter 1, the DNA extracted from the stomachs of harvested North American river otters (*Lontra canadensis*) was used to identify the types of fish they had consumed through a metabarcoding approach. In Chapter 2, DNA sequencing of endangered pupfish species in the Tularosa Basin of New Mexico revealed a rapid speciation event within the last ~5000 years. Chapter 3 extends Chapter 2 by analyzing how genomic diversity changes over both space and time by examining the short-term evolutionary changes (approximately 18 generations) of two native pupfish populations.

**On April 3rd, 2024, 1-2 pm
in PFEN 120 and via Zoom**

Zoom link :

[https://purdue-
edu.zoom.us/j/94497009181?pwd=MFhPT2RJZStVK3ZzNUtqdEhJWGhzQT09](https://purdue-edu.zoom.us/j/94497009181?pwd=MFhPT2RJZStVK3ZzNUtqdEhJWGhzQT09)

