



# GEM3

Genes by Environment  
Modeling · Mechanisms · Mapping

**Module Name:** Thermoregulation

**Institution:** Boise State University

**Module Developer(s):** Jen Forbey, [jenniferforbey@boisestate.edu](mailto:jenniferforbey@boisestate.edu)

**Summary:**

In this module, students will

- understand the relevancy of temperature to understand the physiology of animals
- use scientific practices to quantify and compare how morphology influences thermal exchange with the environment
- understand how the environment and animal morphology influences the physiological process of thermal balance and exchange
- develop protocols for future iteration, collaboration and discovery of thermal balance in animals.

*This module has been used in BSU's Animal Physiology & Nutrition (ZOOL 409) course.*

**Contents:**

- Lab 5: Thermal Exchange
- Lab 5 Supply List
- Guide: *Skinning Birds Resources (websites)*

**Notes:**

- For remote labs, at-home items (animal skins or simulated materials, ice bath / hot water bath, thermometer) or small kits may be used.
- Graduate students are available to assist in teaching this lab remotely. Depending on travel and availability, they may be able to teach in person.

**Questions?** Contact the PI or the GEM3 PUI Liaison, Stephanie Sevigny, [stephanieseigny@boisestate.edu](mailto:stephanieseigny@boisestate.edu)

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