

# BIOS 2041 VERTEBRATE ZOOLOGY

**Credit Points** 10

**Legacy Code** 301257

**Coordinator** Christopher Turbill ([https://directory.westernsydney.edu.au/search/name/Christopher Turbill/](https://directory.westernsydney.edu.au/search/name/Christopher%20Turbill/))

**Description** This unit examines the functional ecology and diversity of vertebrate animals (fish, amphibians, reptiles, birds and mammals). It combines anatomy, physiology, ecology and behaviour, to explain how vertebrates survive and reproduce in relation to their environment. We will uncover the evolutionary relationships among vertebrate groups, and examine their adaptations to different environmental challenges. The unit also explores patterns in vertebrate diversity, with a focus on Australian ecosystems. Students further develop their knowledge of the scientific method to conduct their own project to investigate how environmental factors influence vertebrate animal abundance and diversity. Students may be required to travel to another campus to undertake this unit.

**School** Science

**Discipline** Zoology

**Student Contribution Band** HECS Band 2 10cp

Check your HECS Band contribution amount via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

**Pre-requisite(s)** BIOS 1001

**Incompatible Subjects** BIOS 3023 Vertebrate Biodiversity

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Identify the morphological and physiological characteristics that define vertebrate animals
2. Describe the processes and explain patterns in the phylogenetic (evolutionary) history and current diversity of vertebrate animals
3. Compare and contrast the structure and function of major body systems in vertebrate animals to understand their evolution in response to different environmental challenges
4. Interpret the ecological function of variation in morphological, physiological and behavioural traits among vertebrate animals in relation to their environment, especially from an Australian perspective
5. Review the diversity of vertebrate animal species and identify human-induced environmental changes that threaten the viability of animal populations
6. Apply the scientific method and work collaboratively to conduct and analyse a research project addressing the environmental factors that determine the diversity and abundance of vertebrate animal species

## Subject Content

- Structure and function of major vertebrate animal groups
- Evolutionary relationships among vertebrate animal groups
- Diversity of vertebrates, around the world and in Australia
- Functional ecology of vertebrates in Australian ecosystems

- Application of scientific method to study vertebrates in relation to their environment

## Special Requirements

Legislative pre-requisites

Students who opt to enrol in this subject are strongly recommended to obtain a Tetanus vaccination/booster. Students who cannot evidence vaccination may be precluded from activities on the Farm, and/or internships with third parties.

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

Item	Length	Percent	Threshold	Individual/Group Task
Intra-session Exam	45 minutes	15	N	Individual
Intra-session Exam	45 minutes	15	N	Individual
Intra-session Exam	45 minutes	15	N	Individual
Report	4x during semester	20	N	Individual
Essay	4,000 words	35	N	Individual

Prescribed Texts

- Pough, FH, Janis, CM & Heiser, JB 2018, Vertebrate life, 10th edn, Pearson Education / Benjamin Cummings, San Francisco

Teaching Periods

## Autumn Hawkesbury

**Day**

**Subject Contact** Christopher Turbill ([https://directory.westernsydney.edu.au/search/name/Christopher Turbill/](https://directory.westernsydney.edu.au/search/name/Christopher%20Turbill/))

View timetable ([https://classregistration.westernsydney.edu.au/even/timetable/?subject\\_code=BIOS2041\\_22-AUT\\_HW\\_D#subjects](https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BIOS2041_22-AUT_HW_D#subjects))