BIOS 2041 VERTEBRATE ZOOLOGY

Credit Points 10

Legacy Code 301257

Coordinator Christopher Turbill (https://directory.westernsydney.edu.au/search/name/Christopher Turbill/)

Description This subject 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 subject 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 subject.

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/) page.

Level Undergraduate Level 2 subject

Pre-requisite(s) BIOS 1001

Incompatible Subjects BIOS 3023 Vertebrate Biodiversity

Restrictions

Successful completion of 60 credit points

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.

Type	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 (2022)

Hawkesbury

Day

Subject Contact Christopher Turbill (https://directory.westernsydney.edu.au/search/name/Christopher Turbill/)

View timetable (https://classregistration.westernsydney.edu.au/even/timetable/?subject_code=BIOS2041_22-AUT_HW_D#subjects)

Autumn (2023)

Hawkesbury

On-site

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View timetable (https://classregistration.westernsydney.edu.au/odd/timetable/?subject_code=BIOS2041_23-AUT_HW_1#subjects)