



BIOX3320

Animal Behaviour

Session 2, In person-scheduled-infrequent, North Ryde 2026

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Martin Whiting

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Credit points

10

Prerequisites

BIOX1310 and BIOX2350

Corequisites

Co-badged status

BIOL3320

Unit description

This unit explores the fascinating world of animal behaviour, searching out unifying principles that underlie the extreme diversity of behaviour in nature. Why do birds and bees sing and dance? What keeps families together? How do animals find food? How do animals with very different sensory systems navigate their environment? How has animal behaviour been shaped by evolution and what are the relative roles of natural and sexual selection?

This unit provides insights into sensory processes and decision making. It also reviews major current issues in the study of animal communication while exploring the physiological and neural mechanisms underpinning behaviour, and the function and evolution of natural behaviour. Lectures examine the natural behaviour of diverse animal species, from insects to humans, using instructive examples to illustrate evolution, navigation, foraging, predator–prey interactions, mating systems, mate choice, conflict, communication, and social behaviour. The course also covers theoretical and empirical aspects of animal signalling, modes of communication, the sensory basis of communication, and the evolution of signalling. Practical work involves observing and quantifying behaviour, hypothesis development, data collection, and analysis.

Important Academic Dates

Information about important academic dates including deadlines for withdrawing from units are available at <https://www.mq.edu.au/study/calendar-of-dates>

Learning Outcomes

On successful completion of this unit, you will be able to:

ULO1: Demonstrate an understanding and knowledge of fundamental concepts in animal behaviour

ULO2: Evaluate the interaction of genetic and environmental factors in influencing animal behaviour

ULO3: Critically assess the role of natural selection, including sexual selection, in shaping animal behaviour

ULO4: Apply animal behaviour research to complex conservation challenges

ULO5: Apply the tools of behavioural sampling to research questions in animal behaviour.

ULO6: Formulate hypotheses and predictions and design, conduct, and analyse behavioural experiments

ULO7: Synthesise and communicate research findings in animal behaviour from the primary scientific literature.

General Assessment Information

General Assessment Information

To pass this unit you must:

1. Attempt all assessments.
2. Achieve a total mark equal to or greater than 50%.

Late assessment submission penalty

Unless a Special Consideration request has been submitted and approved, a 5% penalty (of the total possible mark of the task) will be applied for each day a written report or presentation assessment is not submitted, up until the 7th day (including weekends). After the 7th day, a grade of '0' will be awarded even if the assessment is submitted. The submission time for all uploaded assessments is **11:55 pm**. A 1-hour grace period will be provided to students who experience technical concerns. For any late submission of time-sensitive tasks, such as scheduled tests/exams, performance assessments/presentations, and/or scheduled practical assessments/labs, please apply for [Special Consideration](#). For example, if the assignment is worth 8 marks (of the entire unit) and your submission is late by 19 hours (or 23 hours 59 minutes 59 seconds), 0.4 marks (5% of 8 marks) will be deducted. If your submission is late by 24 hours (or 47 hours 59 minutes 59 seconds), 0.8 marks (10% of 8 marks) will be deducted, and so on.

Assessments where late submissions will be accepted

- Attenborough for a day - YES, standard late penalty applies.
- Lab portfolio - YES, standard late penalty applies.

Special consideration

The [Special Consideration Policy](#) aims to support students who have been impacted by short-

term circumstances or events that are serious, unavoidable and significantly disruptive, and which may affect their performance in assessment. If you experience circumstances or events that affect your ability to complete the assessments in this unit on time, please inform the convenor and submit a Special Consideration request through <http://connect.mq.edu.au/>.

Short extensions

For some assessment types, students are allowed to request an extra 3 calendar days to complete eligible assessments. No reason or evidence is required. This only applies to individual assessments with the Short Extension flag in CMS marked as 'yes'. Please ensure that the unit guide specifies whether short extensions apply to any of the assessments in your unit.

Descriptions of assessment activities and other information

1. Attenborough for a day.

Students will work in pairs to make a short nature documentary on their smart phones based on observable animal behaviours in invertebrates, on campus.

2. Lab portfolio

Lab book to show progress and recording of activities performed during workshops. Activities will include measuring behaviour, designing experiments, recording data, graphing and analysing data. The lab portfolio will document this work flow and present methods and results

3. Final exam

The final exam will assess your knowledge and fundamental theory. You will also apply concepts learnt in the workshops.

Generative AI

Assessments may make use of AI (open), with the exception of the examination (no AI at all).

Assessment Tasks

Name	Weighting	Hurdle	Due	Groupwork/Individual	Short Extension	AI Approach
Final Exam	45%	No	Exam Period	Individual	No	Observed
Attenborough for a day	25%	No	14/09/2026	Individual	Yes	Open
Lab portfolio	30%	No	23/10/2026	Individual and Group	No	Observed

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 27 hours

Due: **Exam Period**

Weighting: **45%**

Groupwork/Individual: Individual

Short extension ³: No

AI Approach: Observed

You will undertake a final examination during the formal examination period.

On successful completion you will be able to:

- Demonstrate an understanding and knowledge of fundamental concepts in animal behaviour
- Evaluate the interaction of genetic and environmental factors in influencing animal behaviour
- Critically assess the role of natural selection, including sexual selection, in shaping animal behaviour
- Apply animal behaviour research to complex conservation challenges
- Apply the tools of behavioural sampling to research questions in animal behaviour.
- Formulate hypotheses and predictions and design, conduct, and analyse behavioural experiments

Attenborough for a day

Assessment Type ¹: Creative task

Indicative Time on Task ²: 20 hours

Due: **14/09/2026**

Weighting: **25%**

Groupwork/Individual: Individual

Short extension ³: Yes

AI Approach: Open

Students will work in pairs to make a short nature documentary on their smart phones based on observable animal behaviours in invertebrates, on campus.

On successful completion you will be able to:

- Demonstrate an understanding and knowledge of fundamental concepts in animal behaviour
- Critically assess the role of natural selection, including sexual selection, in shaping animal behaviour
- Formulate hypotheses and predictions and design, conduct, and analyse behavioural experiments
- Synthesise and communicate research findings in animal behaviour from the primary

scientific literature.

Lab portfolio

Assessment Type ¹: Portfolio

Indicative Time on Task ²: 38 hours

Due: **23/10/2026**

Weighting: **30%**

Groupwork/Individual: Individual and Group

Short extension ³: No

AI Approach: Observed

Lab book to show progress and recording of activities performed during workshops. Activities will include measuring behaviour, designing experiments, recording data, graphing and analysing data. The lab portfolio will document this work flow and present methods and results.

On successful completion you will be able to:

- Demonstrate an understanding and knowledge of fundamental concepts in animal behaviour
- Evaluate the interaction of genetic and environmental factors in influencing animal behaviour
- Critically assess the role of natural selection, including sexual selection, in shaping animal behaviour
- Apply animal behaviour research to complex conservation challenges
- Apply the tools of behavioural sampling to research questions in animal behaviour.
- Formulate hypotheses and predictions and design, conduct, and analyse behavioural experiments
- Synthesise and communicate research findings in animal behaviour from the primary scientific literature.

¹ If you need help with your assignment, please contact:

- the academic teaching staff in your unit for guidance in understanding or completing this type of assessment
- [Academic Success](#) for academic skills support.

² Indicative time-on-task is an estimate of the time required for completion of the assessment task and is subject to individual variation.

³ An automatic short extension is available for some assessments. Apply through the [Service Connect Portal](#).

Delivery and Resources

Week 1 classes

Interactive lectures will be made available on iLearn in week 1.

We will meet up for about an hour in week 1 for the workshops (practicals).

Methods of communication

We will communicate with you via your university email and through announcements on iLearn. Queries to convenors can either be placed on the iLearn discussion board or sent to the unit convenor via the contact email on iLearn.

Changes to the unit from last offering

Note: this is a new unit.

Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>). Students should be aware of the following policies in particular with regard to Learning and Teaching:

- [Academic Appeals Policy](#)
- [Academic Integrity Policy](#)
- [Academic Progression Policy](#)
- [Assessment Policy](#)
- [Fitness to Practice Procedure](#)
- [Assessment Procedure](#)
- [Complaints Resolution Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#)

Students seeking more policy resources can visit [Student Policies](https://students.mq.edu.au/support/study/policies) (<https://students.mq.edu.au/support/study/policies>). It is your one-stop-shop for the key policies you need to know about throughout your undergraduate student journey.

To find other policies relating to Teaching and Learning, visit [Policy Central](https://policies.mq.edu.au) (<https://policies.mq.edu.au>) and use the [search tool](#).

Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/admin/other-resources/student-conduct>

Results

Results published on platform other than [eStudent](#), (eg. iLearn, Coursera etc.) or released directly by your Unit Convenor, are not confirmed as they are subject to final approval by the University. Once approved, final results will be sent to your student email address and will be

made available in [eStudent](#). For more information visit connect.mq.edu.au or if you are a Global MBA student contact globalmba.support@mq.edu.au

Academic Integrity

At Macquarie, we believe [academic integrity](#) – honesty, respect, trust, responsibility, fairness and courage – is at the core of learning, teaching and research. We recognise that meeting the expectations required to complete your assessments can be challenging. So, we offer you a range of resources and services to help you reach your potential, including free [online writing and maths support](#), [academic skills development](#) and [wellbeing consultations](#).

Student Support

Macquarie University provides a range of support services for students. For details, visit <http://students.mq.edu.au/support/>

Academic Success

[Academic Success](#) provides resources to develop your English language proficiency, academic writing, and communication skills.

- [Ask a Study Coach](#)
- [Access StudyWISE](#)
- [Upload an assignment to Studiosity](#)
- [Complete the Academic Integrity Module](#)

The Library provides online and face to face support to help you find and use relevant information resources.

- [Subject and Research Guides](#)
- [Ask a Librarian](#)

Student Services and Support

Macquarie University offers a range of [Student Support Services](#) including:

- [IT Support](#)
- [Accessibility and disability support](#) with study
- Mental health [support](#)
- [Safety support](#) to respond to bullying, harassment, sexual harassment and sexual assault
- [Social support including information about finances, tenancy and legal issues](#)
- [Student Advocacy](#) provides independent advice on MQ policies, procedures, and processes

Student Enquiries

Got a question? Ask us via the [Service Connect Portal](#), or contact [Service Connect](#).

IT Help

For help with University computer systems and technology, visit <https://students.mq.edu.au/support/technology/service-desk>.

When using the University's IT, you must adhere to the [Acceptable Use of IT Resources Policy](#). The policy applies to all who connect to the MQ network including students.

Unit information based on version 2026.02 of the [Handbook](#)