

# **BIOL7610**

# **Conservation and Management of Wild Populations**

Session 1, Online-scheduled-weekday 2023

School of Natural Sciences

# Contents

General Information	2
Learning Outcomes	2
General Assessment Information	3
Assessment Tasks	4
Delivery and Resources	7
Policies and Procedures	7

#### Disclaimer

Macquarie University has taken all reasonable measures to ensure the information in this publication is accurate and up-to-date. However, the information may change or become out-dated as a result of change in University policies, procedures or rules. The University reserves the right to make changes to any information in this publication without notice. Users of this publication are advised to check the website version of this publication [or the relevant faculty or department] before acting on any information in this publication.

### **General Information**

Unit convenor and teaching staff Jessica Boomer jessica.boomer@mq.edu.au

Credit points 10

Prerequisites Admission to MRes

Corequisites

Co-badged status BIOL8610

Unit description

This unit deals with the theory and practice of the conservation and management of wild populations of animals and plants. Lectures and tutorials concentrate on the application of population biology to problems in wildlife conservation, including demographics, risk assessment, conservation genetics and monitoring protocols. Case studies will be drawn from Australia and the rest of the world.

#### 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 knowledge of the processes influencing the demography and genetic structure of wild populations, and of the theory, principles, and methods of managing wild populations for conservation purposes

**ULO2:** Gather, critically evaluate and synthesise diverse information sources to make an assessment of extinction risk, potential conservation actions, and critical knowledge gaps, for particular species and populations

**ULO3:** Describe methods used to monitor wild populations, including the particular population-level parameters being measured, the potential sampling biases of these methods, ethical considerations, and their application to conservation

**ULO4:** Design a scientific study that implements population monitoring protocols to critically assess a conservation action, or addresses a critical knowledge gap, for a particular species or population

**ULO5:** Review, critically evaluate and synthesise diverse scientific literature in the area of conservation biology and communicate an understanding of this in a written form

#### **General Assessment Information**

#### **Requirements to Pass this Unit**

To pass this unit you must:

- · Attempt all assessments, and
- 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 7<sup>th</sup> day (including weekends). After the 7<sup>th</sup> 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 a technical concern.

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 <u>Spec</u> ial Consideration.

#### Assessments where Late Submissions will be accepted

Assessment Short Test - NO, unless Special Consideration is Granted Assessment: Species Assessment – YES, Standard Late Penalty applies Assessment: Project Outline – YES, Standard Late Penalty applies Assessment: Developing a grant application – YES, Standard Late Penalty applies

#### **Special Consideration**

The <u>Special Consideration Policy</u> aims to support students who have been impacted by shortterm 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 ask.mq.edu.au.

## **Assessment Tasks**

Name	Weighting	Hurdle	Due
Short Test	20%	No	Week 3, 6, 9, 12
Species Assessment	20%	No	Week 4
Project Outline: Conservation of an Australasian species	20%	No	Week 8
Developing a grant application	40%	No	Week 13

#### Short Test

Assessment Type 1: Quiz/Test Indicative Time on Task 2: 15 hours Due: **Week 3, 6, 9, 12** Weighting: **20%** 

There will be several short tests to be completed in your own time. Each test will be based on any lecture or tutorial material given up to that point. The questions may involve interpretation of a graph or some data, or may be numerical.

On successful completion you will be able to:

 Demonstrate knowledge of the processes influencing the demography and genetic structure of wild populations, and of the theory, principles, and methods of managing wild populations for conservation purposes

#### Species Assessment

Assessment Type 1: Report Indicative Time on Task 2: 15 hours Due: **Week 4** Weighting: **20%** 

Prepare a concise report on a threatened native Australasian species. The species must be listed on a national list of threatened species (such as the EPBC List of Threatened Fauna) or on the IUCN Red List).

On successful completion you will be able to:

- Demonstrate knowledge of the processes influencing the demography and genetic structure of wild populations, and of the theory, principles, and methods of managing wild populations for conservation purposes
- Gather, critically evaluate and synthesise diverse information sources to make an assessment of extinction risk, potential conservation actions, and critical knowledge gaps, for particular species and populations
- Review, critically evaluate and synthesise diverse scientific literature in the area of conservation biology and communicate an understanding of this in a written form

#### Project Outline: Conservation of an Australasian species

Assessment Type 1: Report Indicative Time on Task 2: 15 hours Due: **Week 8** Weighting: **20%** 

Prepare a concise outline for a project that involves monitoring and/or experimental manipulation of your chosen Australasian species that assesses a conservation action or addresses a critical knowledge gap. This proposal will include a clear research question(s), a description of the data to be collected and a brief description of the experimental or sampling design.

On successful completion you will be able to:

- Demonstrate knowledge of the processes influencing the demography and genetic structure of wild populations, and of the theory, principles, and methods of managing wild populations for conservation purposes
- Gather, critically evaluate and synthesise diverse information sources to make an assessment of extinction risk, potential conservation actions, and critical knowledge gaps, for particular species and populations
- Describe methods used to monitor wild populations, including the particular populationlevel parameters being measured, the potential sampling biases of these methods, ethical considerations, and their application to conservation
- Design a scientific study that implements population monitoring protocols to critically assess a conservation action, or addresses a critical knowledge gap, for a particular species or population
- Review, critically evaluate and synthesise diverse scientific literature in the area of

conservation biology and communicate an understanding of this in a written form

### Developing a grant application

Assessment Type 1: Report Indicative Time on Task 2: 29 hours Due: **Week 13** Weighting: **40%** 

You will develop a grant application to undertake research on a species or ecological community of conservation interest. The application will include essential background, research question, study design, ethical concerns, appropriate timelines, realistic budget and expected outcomes.

On successful completion you will be able to:

- Demonstrate knowledge of the processes influencing the demography and genetic structure of wild populations, and of the theory, principles, and methods of managing wild populations for conservation purposes
- Gather, critically evaluate and synthesise diverse information sources to make an assessment of extinction risk, potential conservation actions, and critical knowledge gaps, for particular species and populations
- Describe methods used to monitor wild populations, including the particular populationlevel parameters being measured, the potential sampling biases of these methods, ethical considerations, and their application to conservation
- Design a scientific study that implements population monitoring protocols to critically assess a conservation action, or addresses a critical knowledge gap, for a particular species or population
- Review, critically evaluate and synthesise diverse scientific literature in the area of conservation biology and communicate an understanding of this in a written form

<sup>1</sup> 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
- the Writing Centre for academic skills support.

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

### **Delivery and Resources**

We will run a meet and greet session to answer questions about the unit during the workshop session in week 1. Please see the BIOL8610 iLearn site for details.

#### **Methods of Communication**

 We will communicate with you via your university email or through announcements on iLearn. Queries to the convenor can either be placed on the iLearn discussion board or sent to jessica.boomer@mq.edu.au from your university email address.

#### **COVID Information**

 For the latest information on the University's response to COVID-19, please refer to the Coronavirus infection page on the Macquarie website: <a href="https://www.mq.edu.au/about/coro">https://www.mq.edu.au/about/coro</a> navirus-faqs. Remember to check this page regularly in case the information and requirements change during semester. If there are any changes to this unit in relation to COVID, these will be communicated via iLearn.

### **Policies and Procedures**

Macquarie University policies and procedures are accessible from Policy Central (https://policie s.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 <u>Student Policies</u> (<u>https://students.mq.edu.au/su</u> <u>pport/study/policies</u>). 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 <u>Policy Central</u> (<u>https://policies.mq.e</u> du.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 <u>eStudent</u>, (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 <u>eStudent</u>. For more information visit <u>ask.mq.edu.au</u> or if you are a Global MBA student contact globalmba.support@mq.edu.au

### Academic Integrity

At Macquarie, we believe <u>academic integrity</u> – 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 <u>online writing an</u> d maths support, academic skills development and wellbeing consultations.

### Student Support

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

#### **The Writing Centre**

The Writing Centre provides resources to develop your English language proficiency, academic writing, and communication skills.

- Workshops
- Chat with a WriteWISE peer writing leader
- 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
- <u>Student Advocacy</u> provides independent advice on MQ policies, procedures, and processes

#### **Student Enquiries**

Got a question? Ask us via AskMQ, or contact Service Connect.

### IT Help

For help with University computer systems and technology, visit <u>http://www.mq.edu.au/about\_us/</u>offices\_and\_units/information\_technology/help/.

When using the University's IT, you must adhere to the <u>Acceptable Use of IT Resources Policy</u>. The policy applies to all who connect to the MQ network including students.