



BIOL3420

PACE: Biodiversity and Conservation

Session 2, In person-scheduled-weekday, North Ryde 2022

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Convenor

Jane Williamson

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My office is far away so please make an appointment rather than popping in.

Tutor

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Technician

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Credit points

10

Prerequisites

130cp at 1000 level or above including (BIOL2410 or BIOL227)

Corequisites

(BIOL3310 or BIOL316) or (BIOL3410 or BIOL347) or (BIOL3430 or BIOL368) or (BIOL3510 or BIOL369) or (BIOL3440 or BIOL373)

Co-badged status

Unit description

Conservation of populations, species and ecosystems are essential in maintaining biodiversity. Any loss or deterioration in the condition of biodiversity can compromise ecological and human wellbeing. This PACE unit covers the major themes of biodiversity and conservation: patterns of biodiversity, principles of conservation biology, human impacts and management principles. Topics include global biodiversity, threatening processes, protected areas, habitat fragmentation, restoration ecology, climate change impacts and management of threatened species. Practical work is conducted in two compulsory intensive sessions in collaboration with a partner organisation, one on campus during a weekend and the other off campus in Sydney for three consecutive days. This unit is beneficial for students interested in conservation and management of marine, freshwater and/or terrestrial ecosystems.

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:** Evaluate the major patterns and services provided by biodiversity globally
- ULO2:** Identify key threatening processes that lead to the loss of biodiversity, including those experienced through the PACE activity
- ULO3:** Critically evaluate and synthesise diverse information sources on a current, real-world conservation issue, and communicate that understanding using a variety of techniques
- ULO4:** Understand conservation management plans for practical application using principles of conservation biology
- ULO5:** Evaluate the efficacy of new conservation management strategies in a professional context

General Assessment Information

Assessment Criteria

Assessment at Macquarie University is standards-based, as outlined in the Assessment Policy. This means that your work will be assessed against clear criteria, and these criteria (e.g., in a rubric) will be made available when the assessment tasks are released to you on iLearn. Please ensure that you familiarise yourself with the rubrics prior to completing the assessment. **Note: please regularly check iLearn for any changes in assessment criteria and/or due dates.**

Submission of Assessments

All assessments must be submitted online through Turnitin unless otherwise indicated. Links for the submission of each assessment will be available on iLearn.

You should always check that you are uploading the correct file prior to submission. Depending on the assessment, you may not have the opportunity to correct your mistake. You must also keep a copy of your assessments until the end of the session in case there is a problem with your submission. It is your responsibility to ensure that you can provide a copy of your assessment if requested.

Late Assessment Submission Penalty

From 1 July 2022, Students enrolled in Session-based units with written assessments will have the following university standard late penalty applied. Please see <https://students.mq.edu.au/study/assessment-exams/assessments> for more information.

Unless a Special Consideration request has been submitted and approved prior to the deadline, a 5% penalty (of the total possible mark) will be applied each day a written 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. Submission time for all written assessments is set at **11:55 pm**. A 1-hour grace period is 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, students need to submit an application for [Special Consideration](#).

Supplementary Exams

If you receive special consideration for the final exam, a supplementary exam will be scheduled in the interval between the regular exam period and the start of the next session. By making a special consideration application for the final exam you are declaring yourself available for a resit during the supplementary examination period and will not be eligible for a second special consideration approval based on pre-existing commitments. Please ensure you are familiar with the policy prior to submitting an application. You can check the supplementary examination information page on FSE101 in iLearn (bit.ly/FSESupp) for dates, and approved applicants will receive an individual notification one week prior to the exam with the exact date and time of their supplementary examination.

Assessment Tasks

Name	Weighting	Hurdle	Due
Poster	15%	No	19 August 2022
Species Assessment	25%	No	18 September 2022
Individual Research Project	25%	No	21 October 2022
Final Exam	35%	No	Semester 2 exam period 2022

Poster

Assessment Type ¹: Poster

Indicative Time on Task ²: 15 hours

Due: **19 August 2022**

Weighting: **15%**

You will prepare a poster that summarises and critically appraises a scientific journal article from the recent conservation biology literature. You will submit this online.

On successful completion you will be able to:

- Evaluate the major patterns and services provided by biodiversity globally
- Identify key threatening processes that lead to the loss of biodiversity, including those experienced through the PACE activity
- Critically evaluate and synthesise diverse information sources on a current, real-world conservation issue, and communicate that understanding using a variety of techniques
- Understand conservation management plans for practical application using principles of conservation biology
- Evaluate the efficacy of new conservation management strategies in a professional context

Species Assessment

Assessment Type ¹: Literature review

Indicative Time on Task ²: 30 hours

Due: **18 September 2022**

Weighting: **25%**

You will write a document on the status of an animal or plant species occurring in NSW. You will identify the history of the species in NSW, threats challenging the species' persistence and nominate a level of threat to the species based on IUCN Red List criteria.

On successful completion you will be able to:

- Evaluate the major patterns and services provided by biodiversity globally
- Identify key threatening processes that lead to the loss of biodiversity, including those experienced through the PACE activity
- Critically evaluate and synthesise diverse information sources on a current, real-world conservation issue, and communicate that understanding using a variety of techniques
- Evaluate the efficacy of new conservation management strategies in a professional context

Individual Research Project

Assessment Type ¹: Case study/analysis

Indicative Time on Task ²: 30 hours

Due: **21 October 2022**

Weighting: **25%**

You will research an allocated project on an aspect of conservation and/or biodiversity relevant to Sydney. You will be given data to manipulate and you will produce a scientific report, which you will submit electronically.

On successful completion you will be able to:

- Identify key threatening processes that lead to the loss of biodiversity, including those experienced through the PACE activity
- Critically evaluate and synthesise diverse information sources on a current, real-world conservation issue, and communicate that understanding using a variety of techniques
- Understand conservation management plans for practical application using principles of conservation biology
- Evaluate the efficacy of new conservation management strategies in a professional context

Final Exam

Assessment Type ¹: Examination

Indicative Time on Task ²: 3 hours

Due: **Semester 2 exam period 2022**

Weighting: **35%**

You will sit a final examination during the examination period at the end of the unit.

On successful completion you will be able to:

- Evaluate the major patterns and services provided by biodiversity globally
- Identify key threatening processes that lead to the loss of biodiversity, including those experienced through the PACE activity
- Critically evaluate and synthesise diverse information sources on a current, real-world conservation issue, and communicate that understanding using a variety of techniques
- Understand conservation management plans for practical application using principles of conservation biology
- Evaluate the efficacy of new conservation management strategies in a professional context

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
- the [Writing Centre](#) 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

Delivery and Resources

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>

BIOL3420 consists of two lectures per week (available to infrequent attendance students via Echo360) and a compulsory field trip in the September mid-semester break, 9 am to 5 pm on the 19-21st September.

NB: This unit cannot be completed online. All internal students must attend some face-to-face classes.

To pass this unit you must:

1. Attain an overall grade of 50% or more
2. Attend the compulsory field trip. **Students who cannot attend the entirety of the field trip face-to-face should *NOT* enrol in this unit.**

Delivery

The majority of lectures will be delivered face-to-face. It is expected that students who are enrolled in weekly attendance mode will attend the live lectures. Some lectures will be online only and students will be notified of this prior to the lecture delivery. Recorded lectures will be uploaded to iLearn for infrequent attendance students and for students who have missed the lecture. It is expected that you keep up to date with the lectures each week. Handouts of the lectures may not always be available so please ensure you take comprehensive notes. More information will be given in iLearn.

A field trip consisting of three consecutive days will run at the Coal Loader Centre of Sustainability, Waverton, Sydney. These are day trips only and do not require overnight stay as part of the trip. The field trip will run on-site at Waverton from 9 am to 5 pm each day. You must attend the field trip face to face unless you are ill (in this case you will need to successfully apply for special consideration) or the University directs otherwise.

There are no practical classes. There may occasionally be optional tutorial times where the convenor is available to answer questions collectively. These will be advertised on iLearn and recorded for students who could not attend.

Class Timetable

The class timetable for this unit can be found through the [Timetable](#) portal. You should also

check the unit schedule as some weeks may have other instructions or locations.

Resources

Students will be required to use internet resources for sourcing information and to use appropriate software, particularly Excel and a statistics package (preferably R Studio) for data analysis. Knowledge of data storage and analysis is assumed as these skills are taught in prerequisite units and not in this unit. Students will need access to a portable computer and preferably an independent internet connection for the field trip.

Unit web page

PowerPoint slides, lecture recordings, unit readings, copies of all unit hand-outs, and helpful resources for completion of assessments will be available through iLearn. Consequently, it is strongly recommended that you interact with the BIOL3420 online unit regularly. **To access the online unit, go to <https://iLearn.mq.edu.au/login/MQ/> and type in your Macquarie OneID Username and password.**

New to iLearn? You can find out more at: <https://students.mq.edu.au/support/technology/systems/ilearn>

Experiencing difficulties? contact the [IT Service Desk](#) at help@mq.edu.au.

Unit Schedule

The unit schedule is available through iLearn.

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 ask.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/>

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](#)

Student Enquiries

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

IT Help

For help with University computer systems and technology, visit http://www.mq.edu.au/about_us/offices_and_units/information_technology/help/.

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.

BIOL3420 as a Capstone Unit

BIOL3420 is the capstone unit for the Bachelor of Biodiversity and Conservation course (BBioCons). While not formally assessed in the unit, all BBioCons students are encouraged to do the following as part of their capstone component:

1. Create a [Linkedin Profile](#)
2. Create a [Twitter account](#) for professional discussions
3. Write the species assessment and individual research project to a quality that could be used as exemplars in your CV
4. Consider and discuss with peers and unit staff the types of jobs you would be interested in applying for, and what to include in your CV
5. Familiarise yourself and register with the University's site [Employability Connect](#)

More capstone information will be discussed in the lectures and field trip

BIOL3420 as a PACE Unit

BIOL3420 is a PACE unit within the School of Natural Sciences. It is not a PACE unit that provides internships for students. This unit provides an opportunity for students to engage directly with the community by working alongside those in the industry. During the field trip, students visit Balls Head Reserve and the Coal Loader Centre for Sustainability where they collect data that will be utilised by the local community and industry as part of a longitudinal study of the area. All students complete the same PACE section of the unit regardless of whether they count BIOL3420 as their PACE unit.

Biodiversity and conservation researchers and industry partners give guest lectures within the unit, giving students direct exposure to transitional links to the workplace. Partners benefit by

interacting with enthusiastic discipline-specific students on the cusp of entering the workforce, and through exposure to new advances in the field of biodiversity and conservation. BIOL3420 gives back to the community through the sharing of data and viewpoints. More information on the role of PACE in BIOL3420 will be given in the lectures and field trip.