



BIOL3420

PACE: Biodiversity and Conservation

Session 2, In person-scheduled-weekday, North Ryde 2024

School of Natural Sciences

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General Information

Unit convenor and teaching staff

Patrick Burke

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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. Visit [Employability Connect](#) for important information on this unit including required preparation and closing dates for PACE activities

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

Requirements to Pass this Unit

To pass this unit you must:

- Attempt all assessments, and
- Achieve a total mark equal or greater than 50%, and
- Participate in the entirety of the 3-day field trip.

Students who cannot attend the entirety of the field trip face-to-face should *NOT* enrol in this unit.

Late Assessment Submission and Penalties

Late assessments are not accepted in this unit unless a [Special Consideration](#) has been submitted and approved.

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 ask.mq.edu.au.

Assessment Tasks

Name	Weighting	Hurdle	Due
Species Assessment	25%	No	20 Sept 2024
Poster	15%	No	16 Aug 2024

Name	Weighting	Hurdle	Due
<u>Individual Research Project</u>	25%	No	25 Oct 2024
<u>Final Exam</u>	35%	No	Examination Period

Species Assessment

Assessment Type ¹: Literature review

Indicative Time on Task ²: 30 hours

Due: **20 Sept 2024**

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

Poster

Assessment Type ¹: Poster

Indicative Time on Task ²: 15 hours

Due: **16 Aug 2024**

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

Individual Research Project

Assessment Type ¹: Case study/analysis

Indicative Time on Task ²: 30 hours

Due: **25 Oct 2024**

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 poster, 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: **Examination Period**

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

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 hours of lectures and activities per week, on Fridays from 9am-11am (available to infrequent attendance students via Echo360). At the moment, these will be held at 01CC 107 Groupwork Learning Space, but please check timetables yourself in case of a change. There is also a field trip in the September mid-semester break, and you will be required to attend from 9am to 5pm on each day of the 16-18 September.

NB: This unit cannot be completed online. All internal students are expected to attend face to face classes. If you have a clash you must address this immediately. If you cannot resolve the clash, it is expected that you will attend every second week of BIOL3420 or change your enrolment type.

Delivery

The majority of lectures will be delivered face-to-face. It is expected that students who are enrolled in weekly attendance mode will try to 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 unless the University directs otherwise.

There are no practical classes. There may occasionally be optional consultation times where the convenor or tutor 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. It is your responsibility to resolve any unit clashes as soon as possible.

Week 1 Classes

Lectures will run as usual in Week 1.

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 unit email on iLearn.

Resources

Students will be required to use internet resources for sourcing information and to use appropriate software, particularly Word, PowerPoint, and Excel and the statistics package 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, memory stick, and preferably an independent internet connection for the field trip.

Unit web page

PowerPoint slides, lecture recordings, unit readings, copies of any 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.

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: <https://www.mq.edu.au/about/coronavirus-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 \(https://policies.mq.edu.au\)](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 Advocacy](#) 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 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.

Changes from Previous Offering

We value student feedback to be able to continually improve the way we offer our units. As such we encourage students to provide constructive feedback via student surveys, to the teaching staff directly, or via the FSE Student Experience & Feedback link in the iLearn page.

Student feedback from the previous offering of this unit was very positive overall, with students pleased with the clarity around assessment requirements and the level of support from teaching staff. As such, no change to the delivery of the unit is planned, however we will continue to strive to improve the level of support and the level of student engagement.

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, on iLearn, and during the field trip.

Unit information based on version 2024.03 of the [Handbook](#)