



# BIOL8870

## Regional and Global Conservation

Session 2, Infrequent attendance, North Ryde 2020

*Department of Biological Sciences*

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#### **Notice**

As part of [Phase 3 of our return to campus plan](#), most units will now run tutorials, seminars and other small group learning activities on campus for the second half-year, while keeping an online version available for those students unable to return or those who choose to continue their studies online.

To check the availability of face-to-face and online activities for your unit, please go to [timetable viewer](#). To check detailed information on unit assessments visit your unit's iLearn space or consult your unit convenor.

## General Information

Unit convenor and teaching staff

Robert Harcourt

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Jessica Boomer

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Credit points

10

Prerequisites

(BIOL8750 or BIOL875) or GSE804 or ENV808 or (ENVS8308 or ENVS808) or (admission to MMarScMgt or MConsBiol or GradDipConsBiol or GradCertConsBiol or MSc or MScInnovationBioConsMgmt or BBioConsMConsBiol)

Corequisites

Co-badged status

Unit description

This unit deals with the problem of conserving biodiversity as a whole rather than concentrating on individual species or populations. The unit is applied and multidisciplinary, drawing on such areas as ecology, evolutionary biology, biogeography, and informatics. We will explore the concept of biodiversity in both the scientific and legislative arenas. The problem of measuring biodiversity is considered in detail, including the conceptual and practical impediments to measurement. Current and emerging threats to biodiversity are reviewed on a global scale, along with the practical and ethical arguments for conservation. Tutorials and assessments are focussed on analysing and interpreting patterns in biodiversity in space and time as a means of informing conservation decisions.

## 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:** Explain the principles and methods used by Conservation Biology to quantify and value biodiversity at local to global scales.

**ULO2:** Elucidate the patterns, mechanisms and consequences of biodiversity and

biodiversity loss.

**ULO3:** Integrate observed spatial pattern of biodiversity with other sources of spatial information in order to identify and prioritise areas requiring biodiversity monitoring and/or conservation action.

**ULO4:** Compile, analyze and interpret biodiversity patterns in a conservation context.

**ULO5:** Communicate Conservation Biology issues to diverse audiences in written and oral form.

**ULO6:** Critically evaluate and synthesize scientific literature on topics of interest in Conservation Biology and make recommendations on locations requiring conservation action based on sound scientific evidence.

## Assessment Tasks

Name	Weighting	Hurdle	Due
<a href="#">Online tests</a>	15%	No	Tuesday of weeks 4, 8 and 12.
<a href="#">Conservation talk</a>	25%	No	6 October 2020
<a href="#">Conservation Abstract</a>	20%	No	11 Sep 2020
<a href="#">Conservation plan</a>	40%	No	6 Nov 2020

### Online tests

Assessment Type <sup>1</sup>: Quiz/Test

Indicative Time on Task <sup>2</sup>: 6 hours

Due: **Tuesday of weeks 4, 8 and 12.**

Weighting: **15%**

There will be a total of 3 online tests to be completed in your own time. Each test will consist of a single short-answer question and will be based on any lecture, tutorial or assigned reading given up to that point. Marks and feedback will become available after the test has been closed.

On successful completion you will be able to:

- Explain the principles and methods used by Conservation Biology to quantify and value biodiversity at local to global scales.
- Elucidate the patterns, mechanisms and consequences of biodiversity and biodiversity

loss.

- Integrate observed spatial pattern of biodiversity with other sources of spatial information in order to identify and prioritise areas requiring biodiversity monitoring and/or conservation action.
- Compile, analyze and interpret biodiversity patterns in a conservation context.
- Communicate Conservation Biology issues to diverse audiences in written and oral form.

## Conservation talk

Assessment Type <sup>1</sup>: Presentation

Indicative Time on Task <sup>2</sup>: 15 hours

Due: **6 October 2020**

Weighting: **25%**

You will be tasked with formulating a smart conservation problem based on a real world example of conservation biology. You will be provided with a published peer reviewed paper which describes fundamental conservation knowledge. You will use this paper to present on: 1) the key aspects of what is known about the conservation issue, 2) formulate and present on key aspects of the conservation problem, 3) describe a hypothetical solution to the problem. Internals will deliver a presentation during tutorials. External students will submit a recording of your presentation. The assignment of the peer reviewed paper and discussion of the key aspects of proper problem formulation will occur in a tutorial.

On successful completion you will be able to:

- Explain the principles and methods used by Conservation Biology to quantify and value biodiversity at local to global scales.
- Elucidate the patterns, mechanisms and consequences of biodiversity and biodiversity loss.
- Integrate observed spatial pattern of biodiversity with other sources of spatial information in order to identify and prioritise areas requiring biodiversity monitoring and/or conservation action.
- Communicate Conservation Biology issues to diverse audiences in written and oral form.
- Critically evaluate and synthesize scientific literature on topics of interest in Conservation Biology and make recommendations on locations requiring conservation action based on sound scientific evidence.

## Conservation Abstract

Assessment Type <sup>1</sup>: Summary

Indicative Time on Task <sup>2</sup>: 9 hours

Due: **11 Sep 2020**

Weighting: **20%**

You will be tasked with formulating a smart conservation problem based on a real world example of conservation biology. You will be provided with a published peer reviewed paper which describes fundamental conservation knowledge. You will use this paper to present on: 1) the key aspects of what is known about the conservation issue, 2) formulate and present on key aspects of the conservation problem, 3) describe a hypothetical solution to the problem. The assignment of the peer reviewed paper and discussion of the key aspects of proper problem formulation will occur in a tutorial. In this first part you will write an abstract and design an infographic

On successful completion you will be able to:

- Explain the principles and methods used by Conservation Biology to quantify and value biodiversity at local to global scales.
- Integrate observed spatial pattern of biodiversity with other sources of spatial information in order to identify and prioritise areas requiring biodiversity monitoring and/or conservation action.
- Critically evaluate and synthesize scientific literature on topics of interest in Conservation Biology and make recommendations on locations requiring conservation action based on sound scientific evidence.

## Conservation plan

Assessment Type <sup>1</sup>: Quantitative analysis task

Indicative Time on Task <sup>2</sup>: 40 hours

Due: **6 Nov 2020**

Weighting: **40%**

You will prepare a conservation plan for Tasmania. We will use existing data on ecosystems (from NVIS) and species distributions (from SPRAT database) to determine conservation priorities for a region of Australia using systematic conservation planning tools. Analyses for this assignment will be conducted during tutorials. Students can collaborate on making a conservation plan but write and submit their assignments individually. The plan is expected to be well illustrated with maps and graphs, and have an extensive bibliography

On successful completion you will be able to:

- Explain the principles and methods used by Conservation Biology to quantify and value biodiversity at local to global scales.
  - Elucidate the patterns, mechanisms and consequences of biodiversity and biodiversity loss.
  - Integrate observed spatial pattern of biodiversity with other sources of spatial information in order to identify and prioritise areas requiring biodiversity monitoring and/or conservation action.
  - Compile, analyze and interpret biodiversity patterns in a conservation context.
  - Communicate Conservation Biology issues to diverse audiences in written and oral form.
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<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

### Lectures

Lectures will be pre-recorded and made available online each week under the week sections below. Each week the lecture will become available at 1100 on Tuesday. There will be a Discussion board for the lecture (also located in the section for that week below) in which you may post queries and we will answer them that week.

### Tutorials

Tutorial material will be available each week in the section below corresponding to that week.

Face to Face - Tutorials run from 2-4 pm on Tuesdays in 03IR G220 Faculty PC Lab

Online - An online tutorial will run through Zoom from 11 am to 1pm on Thursdays.

## Policies and Procedures

Macquarie University policies and procedures are accessible from [Policy Central \(https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central\)](https://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central). 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](#)
- [Grade Appeal Policy](#)
- [Complaint Management Procedure for Students and Members of the Public](#)
- [Special Consideration Policy](#) (**Note:** *The Special Consideration Policy is effective from 4 December 2017 and replaces the Disruption to Studies Policy.*)

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

If you would like to see all the policies relevant to Learning and Teaching visit [Policy Central](http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central) (<http://staff.mq.edu.au/work/strategy-planning-and-governance/university-policies-and-procedures/policy-central>).

## Student Code of Conduct

Macquarie University students have a responsibility to be familiar with the Student Code of Conduct: <https://students.mq.edu.au/study/getting-started/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](http://ask.mq.edu.au) or if you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## Student Support

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

## Learning Skills

Learning Skills ([mq.edu.au/learningskills](http://mq.edu.au/learningskills)) provides academic writing resources and study strategies to help you improve your marks and take control of your study.

- [Getting help with your assignment](#)
- [Workshops](#)
- [StudyWise](#)
- [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

Students with a disability are encouraged to contact the [Disability Service](#) who can provide appropriate help with any issues that arise during their studies.

## Student Enquiries

For all student enquiries, visit Student Connect at [ask.mq.edu.au](http://ask.mq.edu.au)

If you are a Global MBA student contact [globalmba.support@mq.edu.au](mailto:globalmba.support@mq.edu.au)

## IT Help

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