

## ENVS2006: Ecology and Management of Wildlife

International Summer Compressed Course

June-July 2023



THE UNIVERSITY OF  
NEWCASTLE  
AUSTRALIA

### **Reasonable Adjustment Plans (RAP)**

If you are registered with AccessAbility and have been provided with a Reasonable Adjustment Plan (RAP), please ensure that you provide your Course Coordinator with a copy as soon as you can or let your Course Coordinator know that you are still waiting for your RAP.

### **COVID-19**

The details in this Course Outline are as in the University's Handbook. Students are reminded that they should monitor the University Homepage for any updates regarding COVID-19 as there could be changes to course delivery to comply with health advice. Any course delivery amendment will be communicated by the Course Coordinator via Announcements in your course Canvas site.

## OVERVIEW

### **Course Description**

Wildlife around the world is increasingly heading toward extinction. One method governments use to avert this extinction crisis is to create threatened species recovery plans that outline what we know about a species and how we can keep it alive into the future.

This course will develop your understanding of the ecology and management of wildlife via the creation of a species recovery plan. Students will work in groups to identify why recovery plans are important, and then to collect the information necessary on their chosen taxa to compile a recovery plan.

In doing so, students will develop skills on species identification and survey methods to ensure they can make appropriate recommendations in their recovery plans. Students will summarise published data on their focal species and related taxa to generate sections of their recovery plan on the species ecology and evolutionary history, unique adaptations, threatening processes and fully costed management solutions.

### **Assumed Knowledge**

First year biology is an advantage

### **Contact Hours**

#### **Computer Lab\***

Face to Face on Campus  
3 hour(s) per Week for Four Weeks  
Computer/group work

#### **Field Study \***

Face to Face Off Campus  
21 hour(s) over the course

#### **Lecture**

Online  
12 hour(s) over the course

### **Unit Weighting**

\* This contact type has a compulsory requirement.  
10

# COURSE OUTLINE

[www.newcastle.edu.au](http://www.newcastle.edu.au)

CRICOS Provider 00109J

**Workload** Students are required to spend on average 120-140 hours of effort (contact and non-contact) including assessments per 10 unit course.

## CONTACTS

**Course Coordinator** Dr Alex Callen  
Alex.callen@newcastle.edu.au  
Consultation: By appointment

**Teaching Staff** Other teaching staff will be advised on the course Canvas site.

**School Office** **School of Environmental and Life Sciences**  
Room C228 Chemistry Building  
Callaghan  
[Science-SELS@newcastle.edu.au](mailto:Science-SELS@newcastle.edu.au)  
+61 2 4921 5080  
9am-5pm (Mon-Fri)

## SYLLABUS

**Course Content** The Theme of the course revolves around creating a recovery plan for a threatened species. Specific emphasis is given to processing key components of the recovery plan including:

1. What is in a species recovery plan and why are they important?
2. Understanding the ecology of your focal species.
3. Determining critical habitat and identifying critical threats for your species.
4. Paraphrase the national and international legal obligations that may affect your species.
5. Methods to study, identify and describe the diversity of animals.
6. The importance of your study taxa to indigenous people.
7. Social and economic interests associated with the conservation management of your species.
8. Decide what the broader benefits will be from the successful conservation of your species (ecosystem services).
9. Describe the existing conservation management practices that are being implemented for your species and evaluate how successful this has been.
10. Compile recovery goals, objectives, and actions to improve the conservation success of your species and the cost the recovery actions you propose.

**Course Learning Outcomes** **On successful completion of this course, students will be able to:**

1. Create a fully costed recovery plan for a threatened species.
2. Assemble information relevant to the creation of the recovery plan, including that on species taxonomy, distribution, status, population trends, ecology, habitat and threats.
3. Translate lessons learnt on a threatened species that is relevant to other species.
4. Debate threatened species management from a range of perspectives.
5. Identify the strengths and weaknesses of methods of surveying wildlife.
6. Work effectively independently and as part of a team.

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**Course Materials**

**Lecture Materials:**

- Lecture and supplementary materials provided via Blackboard.

# COMPULSORY REQUIREMENTS

In order to pass this course, each student must complete ALL the following compulsory requirements:

## Contact Hour Requirements:

- Field Study Induction Requirement - Students must attend and pass the induction requirements before attending these sessions. In order to participate in this course students must complete a compulsory lab/fieldwork induction.

# SCHEDULE

Week	Week Begins	Topic	Learning Activity	Assessment Due
1	12 June	<ul style="list-style-type: none"> <li>• Introduction</li> <li>• Species ecology</li> <li>• Habitat</li> </ul>	<ul style="list-style-type: none"> <li>• Choose group and species for recovery plan</li> <li>• GIS mapping (computer lab)</li> <li>• Field trip – day - koala hospital and whale watching (Port Stephens)</li> </ul>	Online quizzes 1-3 due 9am Wed (5% of final mark) Field inductions Field Trip 1 (7%)
2	19 June	<ul style="list-style-type: none"> <li>• Threats to wildlife</li> <li>• Legal obligations of threatened species management</li> <li>• Affected interests in your species</li> </ul>	<ul style="list-style-type: none"> <li>• Review the ecology of your study species using jigsaw learning</li> <li>• Project prioritisation protocols using expert opinion</li> <li>• Maxent modelling (computer lab)</li> <li>• Field trip – evening- frog surveys in The Watagans, Central Coast</li> </ul>	Online quizzes 4-5 due 9am Mon (5%) Field Trip 2 (6%)
3	26 June	<ul style="list-style-type: none"> <li>• Indigenous and socio-economic issues relating to your threatened species</li> <li>• Population viability</li> <li>• Broader biodiversity benefits of your species</li> </ul>	<ul style="list-style-type: none"> <li>• Population viability analysis (computer lab)</li> <li>• Mock stakeholder engagement meeting</li> <li>• Review likely indigenous and socio-economic issues affecting your species</li> <li>• Field trip – day – Aussie Ark, Barrington Tops Tasmanian Devils</li> </ul>	Online quizzes 6-7 due 9am Mon (5%) Conduct mock stakeholder engagement meeting (5%) Field Trip 3 (7%)
4	03 July	<ul style="list-style-type: none"> <li>• Existing conservation practices</li> <li>• Species management and recovery planning</li> <li>• Costing and prioritising recovery actions</li> </ul>	<ul style="list-style-type: none"> <li>• Population viability analysis (computer lab)</li> <li>• Review IUCN Red List</li> <li>• Define goals and objectives of your recovery plan</li> <li>• Prioritise recovery actions</li> <li>• Group presentation about chosen recovery species</li> </ul>	Online quizzes 8-9 due 9am Mon (5%) Group presentation (5%) Recovery plan due (50%)

# ASSESSMENTS

This course has 4 assessments. Each assessment is described in more detail in the sections below.

	Assessment Name	Due Date	Involvement	Weighting	Learning Outcomes
1	Online Quizzes	Weekly	Individual	20%	2, 3, 5
2	Recovery Plan	Wednesday Week 4.	Group	50%	1, 2, 5, 6
3	Stakeholder workshop	Wednesday Week 3	Individual	10%	4, 6
4	Group Presentation	Tuesday Week 4	Individual	10%	6
5	Field trip attendance	Weeks 1, 2 & 3	Individual	10%	2

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**Late Submissions** The mark for an assessment item submitted after the designated time on the due date, without an approved extension of time, will be reduced by 10% of the possible maximum mark for that assessment item for each day or part day that the assessment item is late. Note: this applies equally to week and weekend days.

## Assessment 1 - Online Quizzes

**Assessment Type** Quiz  
**Purpose** The purpose of the quizzes is to ensure everyone comes to the computer lab prepared to work and with some background understanding of the theory behind the week's activity.  
**Description** Short multi-choice or short answer questions.  
**Weighting** 20%  
**Due Date** Weekly before each lab.  
**Submission Method** Online  
**Assessment Criteria**  
**Return Method** Online  
**Feedback Provided** Online.

## Assessment 2 - Recovery Plan

**Assessment Type** Written Assignment  
**Purpose** This is the ultimate goal of this course - a full recovery plan for a threatened species to enable conservation managers to understand the ecology and threats to your species, and how best to improve its conservation status.  
**Description** Your group will compile all the data necessary to create a threatened species recovery plan.  
**Weighting** 50%  
**Length** This is a detailed plan.  
**Due Date** 5pm Wednesday of Week 4.  
**Submission Method** Online  
Submission via Turnitin link found in the Assessments tab of the Canvas page  
**Assessment Criteria** See marking rubric in the Assessments tab of the Canvas page.  
**Return Method** Online  
**Feedback Provided** Online - 2 weeks after submission. Rubric scores and online comments

## Assessment 3 - Stakeholder workshop

**Assessment Type** Tutorial / Laboratory Exercises  
**Purpose** The purpose of the stakeholder workshop is to investigate the conservation of your species from a range of perspectives.  
**Description** Your group will discuss issues related to the conservation of your species with each person giving one or more different perspectives.  
**Weighting** 10%  
**Length** 10 minutes  
**Due Date** In class Wednesday Week 3  
**Submission Method** In Class  
**Assessment Criteria** Marking rubric provided on the Canvas site  
**Return Method** In Class  
**Feedback Provided** In Class - Week after presentations. Rubric scores

## Assessment 4 - Group Presentation

**Assessment Type** Participation  
**Purpose** The purpose of this assessment is to help you develop your teamwork skills.  
**Description** When you leave university and get a job, you will almost certainly work as part of a team. Employers have been stressing the importance of the ability to work in a team to the university. Hence, this course will use your attendance, and the perceptions of the rest of your group and the course coordinator to allocate a group work mark.  
**Weighting** 10%  
**Length** Assessed via group contribution  
**Due Date** Tuesday of Week 4  
**Submission Method** Online  
**Assessment Criteria** Group members will be required to provide a mark out of 10 for each group member. The mean of these marks will be coupled with the marks of the staff to yield a final group mark.

<b>Return Method</b>	Online
<b>Feedback Provided</b>	Online - 2 weeks after recovery plan submitted - as requested

## Assessment 5 – Field Trip Attendance

<b>Assessment Type</b>	Attendance
<b>Purpose</b>	The field trips are designed to develop your knowledge of Australian wildlife, their importance, threats, conservation action and some measures of assessing them. Field trip locations and times are subject to change pending weather conditions and logistics.
<b>Description</b>	Participating in experiential field trip activities is central to the learning in this course.
<b>Weighting</b>	10%
<b>Length</b>	Assessed via attendance
<b>Due Date</b>	Thursday Week 1, Thursday night Week 2, Thursday Week 3
<b>Submission Method</b>	Class list for field trips
<b>Assessment Criteria</b>	Attendance
<b>Return Method</b>	Nil
<b>Feedback Provided</b>	Nil

## ADDITIONAL INFORMATION

### Grading Scheme

This course is graded as follows:

Range of Marks	Grade	Description
85-100	High Distinction (HD)	Outstanding standard indicating comprehensive knowledge and understanding of the relevant materials; demonstration of an outstanding level of academic achievement; mastery of skills*; and achievement of all assessment objectives.
75-84	Distinction (D)	Excellent standard indicating a very high level of knowledge and understanding of the relevant materials; demonstration of a very high level of academic ability; sound development of skills*; and achievement of all assessment objectives.
65-74	Credit (C)	Good standard indicating a high level of knowledge and understanding of the relevant materials; demonstration of a high level of academic achievement; reasonable development of skills*; and achievement of all learning outcomes.
50-64	Pass (P)	Satisfactory standard indicating an adequate knowledge and understanding of the relevant materials; demonstration of an adequate level of academic achievement; satisfactory development of skills*; and achievement of all learning outcomes.
0-49	Fail (FF)	Failure to satisfactorily achieve learning outcomes. If all compulsory course components are not completed the mark will be zero. A fail grade may also be awarded following disciplinary action.

\*Skills are those identified for the purposes of assessment task(s).

### Attendance

Attendance/participation will be recorded in the following components:

- Computer Labs (Method of recording: Class list)
- Field trips (Method of recording: Class list)

### Communication Methods

Communication methods used in this course include:

- Canvas Course Site: Students will receive communications via the posting of content or announcements on the Canvas course site.
- Email: Students will receive communications via their student email account.
- Face to Face: Communication will be provided via face to face meetings or supervision.

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<b>Course Evaluation</b>	Each year feedback is sought from students and other stakeholders about the courses offered in the University for the purposes of identifying areas of excellence and potential improvement.
<b>Oral Interviews</b>	As part of the evaluation process of any assessment item in this course an oral examination may be conducted. The purpose of the oral examination is to verify the authorship of the material submitted in response to the assessment task. The oral examination will be conducted in accordance with the principles set out in the <a href="#">Oral Examination Guidelines</a> . In cases where the oral examination reveals the assessment item may not be the student's own work the case will be dealt with under the <a href="#">Student Conduct Rule</a> .
<b>Academic Misconduct</b>	All students are required to meet the academic integrity standards of the University. These standards reinforce the importance of integrity and honesty in an academic environment. Academic Integrity policies apply to all students of the University in all modes of study and in all locations. For the Student Academic Integrity Policy, refer to <a href="https://policies.newcastle.edu.au/document/view-current.php?id=35">https://policies.newcastle.edu.au/document/view-current.php?id=35</a> .
<b>Adverse Circumstances</b>	<p>The University acknowledges the right of students to seek consideration for the impact of allowable adverse circumstances that may affect their performance in assessment item(s). Applications for special consideration due to adverse circumstances will be made using the online Adverse Circumstances system where:</p> <ol style="list-style-type: none"><li>1. the assessment item is a major assessment item; or</li><li>2. the assessment item is a minor assessment item and the Course Co-ordinator has specified in the Course Outline that students may apply the online Adverse Circumstances system;</li><li>3. you are requesting a change of placement; or</li><li>4. the course has a compulsory attendance requirement.</li></ol> <p>Before applying you must refer to the Adverse Circumstance Affecting Assessment Items Procedure available at:</p> <p><a href="https://policies.newcastle.edu.au/document/view-current.php?id=236">https://policies.newcastle.edu.au/document/view-current.php?id=236</a></p>
<b>Important Policy Information</b>	The 'HELP for Students' tab in UoNline contains important information that all students should be familiar with, including various systems, policies and procedures.
<b>Other Information</b>	The field trip in March will require you to provide your own camping gear, food, and transport (car-share where possible). We can provide a lift to some people, and some camping gear. Please alert Matt if you need this.

*This course outline was approved by the Head of School. No alteration of this course outline is permitted without Head of School approval. If a change is approved, students will be notified, and an amended course outline will be provided in the same manner as the original.*

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