

## ***“Australian Wildlife and Conservation”*** **- June-July 2021 3-week program**

**Instructors:** Dr Rosalie Chapple, Mr Brad Nesbitt, Mr Geoff Ross

### **Course description:**

Australia offers a unique and diverse range of natural and cultural landscapes and ecosystems to explore. Evolving from origins in ancient Gondwana and millions of years of geographic isolation, Australia has geographical and natural features found nowhere else in the world. This program allows an unparalleled opportunity for students to receive a first-hand introduction to Australia's environment and wildlife through the eyes of local experts.

The context for this course is the global ecological crisis - we live in an increasingly human-dominated world where the places for wildlife are shrinking, and nature conservation strategies are largely failing. Australia provides an interesting case study, given its recent history of industrial development (only just over 200 years ago), and still being graced with large tracts of native forested areas. Students are exposed to the challenges of conserving and managing natural and cultural heritage in the 21<sup>st</sup> century, and Australia's unique flora and fauna is observed across climatically varied regions. Indigenous culture is fundamental to understanding the environment, and their cultural ties to the land are explored along with how these considerations are incorporated into management of protected conservation areas such as National Parks and natural World Heritage sites.

The course provides a range of learning experiences designed to:

1. Provide direct experience of landscape types in Australia including: Byron Bay (sub-tropical; Gondwana World Heritage Area); Blue Mountains World Heritage Area (temperate); Sydney Harbour National Park (coastal temperate); Wet Tropics World Heritage Area & Great Barrier Reef
2. Understand how geological change in Australia has influenced the evolution of Australia's unique biodiversity.
3. Understand environmental challenges within their socio-cultural and historical context.
4. Understand Indigenous conservation land management principles and practices and how traditional ecological knowledge is integrated with modern ecological land management
5. Introduce wildlife survey methods and innovations for conservation.
6. Emphasise the limits of narrow disciplinary approaches to environmental problems and address the complex environmental challenges of today and the future using higher order critical thinking.
7. Explore environmental challenges in a range of environments including coastal, forested, and urban fringe.

### **Prerequisites:**

This course is designed for students from a range of disciplines, not just science or environmental majors. It is an introductory level course, which is relevant for broader environmental and cultural studies programs. It assumes no, or very little previous tertiary level biological science, however, biology students would have the opportunity to expand their knowledge, particularly in practical application and environmental management. Care has been taken to secure experienced guides and speakers for the delivery of this course to ensure a first-class educational and cultural experience. The course suits those interested in broader contextual issues relating to the natural environment (politics, Indigenous culture, historical processes, decision-making and governance, innovation in wildlife conservation, and indigenous land management principles and practice).

### **Course Assignments**

Field Notebook 10%  
 Research Report 40%  
 In-the-field presentation 10%  
 Exam 30%  
 Weekly Journal (x3) 10%

A detailed course handbook will be provided, including detail on assignments and readings.

### 3-week schedule

#### Overview

**Week 1: Byron Bay** - Introduction to the course and assessments; Lectures on key aspects of environment and conservation and the socio-historical context in Australia; Understanding the broader context for environmental issues. [12 hours class; 8 hours field]

**Week 2: Sydney / Blue Mountains** – a combination of outdoor and indoor activities; 3-day field trip (2 nights) Blue Mountains; query time for? - 1-day field trip (Botany Bay); Report writing. [7 hours class; 18 hours field]

**Week 3: Cairns / Daintree** – 3-day field trip (2 nights) Daintree rainforest; 1-2 class lectures; course review & class discussions; Final exam. [6 hours class; 16 hours field]

#### Byron Bay

Date	Time	Activity
		Arrive Byron Bay; orientation and introductions Welcome dinner
Week 1 Day 1	9.00am - 12.00pm	Classroom lectures <ul style="list-style-type: none"> <li>• Introduction to the course – content, aims, assessment, activities, approach to learning</li> <li>• Gondwana - the biophysical making of Australia</li> <li>• Contemporary Australian ecosystems</li> <li>• Aboriginal culture and European impacts               <ul style="list-style-type: none"> <li>○ Film: 'First Australians'</li> </ul> </li> </ul>
Week 1 Day 2	9.00am - 12.00pm	Classroom lectures <ul style="list-style-type: none"> <li>• Environmental policy scene – national and international</li> <li>• Conservation strategies &amp; protected area management</li> </ul>
Week 1 Day 3	9.00am - 5.00pm	<i>Field trip</i> Gondwana World Heritage Area
Week 1 Day 4	9.00am – 12.00pm	Classroom lectures <ul style="list-style-type: none"> <li>• Contemporary Indigenous conservation land management principles &amp; practices</li> <li>• The role of science in conservation &amp; wildlife management</li> </ul>
Week 1 Day 5	9.00am – 12.00pm	Classroom lectures <ul style="list-style-type: none"> <li>• Introduction to problem orientation for report preparation</li> </ul> Travel to Sydney (weekend in Sydney)

## Sydney & Blue Mountains

Date	Time	Activity
Week 2 Day 1	9am-5pm	Classroom lectures <ul style="list-style-type: none"> <li>• Fire in the Australian landscape</li> <li>• Contemporary Indigenous conservation land management principles &amp; practices</li> <li>• Introduction to Blue Mountains</li> </ul>
Week 2 Day 2 – Blue Mountains	9am-12pm	Bus/train to Blue Mountains (2 hours) <i>Field:</i> Welcome to Country by local Indigenous elder <i>Field:</i> Interpretive bushwalk (3-4 hours) Indoor presentation and discussion
Week 2 Day 3 – Blue Mountains	9am-11am 2pm-8.30pm	Classroom lectures <ul style="list-style-type: none"> <li>• Threatened Species Management</li> </ul> <i>Field:</i> Visit Secret Creek native mammal sanctuary (includes dinner)
Week 2 Day 4	9am-12pm 2-5pm	<i>Field:</i> Guided walk Return to Sydney (afternoon)
Week 2 Day 5	9am-12pm	Classroom: Group discussion and report preparation Introduction to the Wet Tropics

## Cairns, Daintree Rainforest & Great Barrier Reef

Date	Time	Activity
Week 3 Day 1 - Daintree	All day	<i>Travel to Cairns &amp; then to Daintree Rainforest</i>
Week 3 Day 2 - Daintree	All day	<i>In the field and on the reef</i>
Week 3 Day 3	All day	<i>In the field and on the reef</i> Return to Cairns
Week 3 Day 4	9am-12pm	Course review & exam preparation Free time for individual study for exam preparation
Week 3 Day 5	9am-12pm	Final Exam End of academic program; Final Farwell Dinner