

Ecosystems at Risk

Dorrigo National Park

Location description and highlights

Dorrigo National Park is located astride the Great Escarpment at the edge of the Dorrigo Plateau and above the heart of the Bellinger Valley. Its magnificent rainforests are part of the Gondwana Rainforests of Australia World Heritage area, are of international significance, and are easily accessed via boardwalks and sealed walking tracks. Views from the Skywalk boardwalk emphasize aspects of both geographical location, climate, geology, and human impacts on the site.

About this program

The field trip is designed to complement a case study of a particular ecosystem at risk, providing an opportunity to observe a highly diverse rainforest ecosystem, its geographical location and extent, altitude, continuity and the effects on it of biophysical interactions, human impacts and contemporary management practices. It also provides an opportunity to question a representative of the management authority about the global significance of the site, possible future impacts, and strategies for managing these. An additional 3hr exercise may be added, where students role-play characters who play a variety of roles in the evaluation and management of risk factors. In addition, detailed information about these aspects of the site are provided in a resource package available on the Department website.

Objectives

Students gain an understanding of the vulnerability of ecosystems to natural stress and human impacts.
Students recognise the importance of ecosystem management and protection.
Students develop informed and responsible values and attitudes towards ecological sustainability.

Program outline

- Group meets at Dorrigo Rainforest Centre - welcome by Discovery Rangers.
- Presentation by Discovery Ranger, summarising main natural and human impacts which put the ecosystem at risk, and management strategies and plans to combat threats.
- Morning tea and toilet break
- Guided walk from Rainforest Centre to Crystal Shower Falls and return to The Glade Picnic Area (4.6km) for lunch.
- **Optional addition** of role-play exercise. (3 hrs)

Links to support material for schools

About Dorrigo National Park

- www.environment.nsw.gov.au/nationalparks/parkhome.aspx?id=N0011
- Booklet: Discovering Gondwana: A guide to Dorrigo National Park
- Booklet: Under the Canopy
- Fact sheet: Forest types of Dorrigo National Park
- Fact sheet: Energy & nutrient cycles in rainforest
- Fact sheet: Human Impacts on rainforests of Dorrigo Plateau
- Fact sheet: Why is rainforest important?

Additional references

History of Dorrigo Plateau land use

- www.nla.gov.au/nla.cat-vn3287284

Rainforest conservation

- www.environment.nsw.gov.au/natureconservation.htm
- www.environment.gov.au/heritage/places/world/gondwana/index.html
- www.rainforestinfo.org.au/video/trees_v.html

Activity outline

Levels:

Stage 6

Key learning areas:

GEOGRAPHY - Ecosystems at risk

Key outcomes:

- Students explain the factors which place ecosystems at risk and the reasons for their protection
- Students evaluate environmental management strategies in terms of ecological sustainability
- Students plan geographical enquiries to analyse and synthesise information from a variety of sources

Location:

Dorrigo National Park

Length:

3 hrs, with option for full day, which includes role-play exercise, highlighting planning strategies for risk factors.

Time of Day:

Design technique:

- Students observe, question, record information, discuss.
- Students role-play characters with a variety of roles in managing risk to the ecosystem.
- Students work in teams

Equipment used:

GPS unit, camera, tape measure, topographic maps, compass, aerial photos, laptop computer, Powerpoint presentations, photos, laminated description of NPWS staff roles, uniform and other props. DNP Fire Management Strategy, and P.O.M.

Additional equipment:

Conference room with power source, whiteboard and screen

Teacher resources:

Student resources:

Provided on the day - *Managing for Risk: Rainforests of Dorrigo National Park*

Ecosystems at Risk

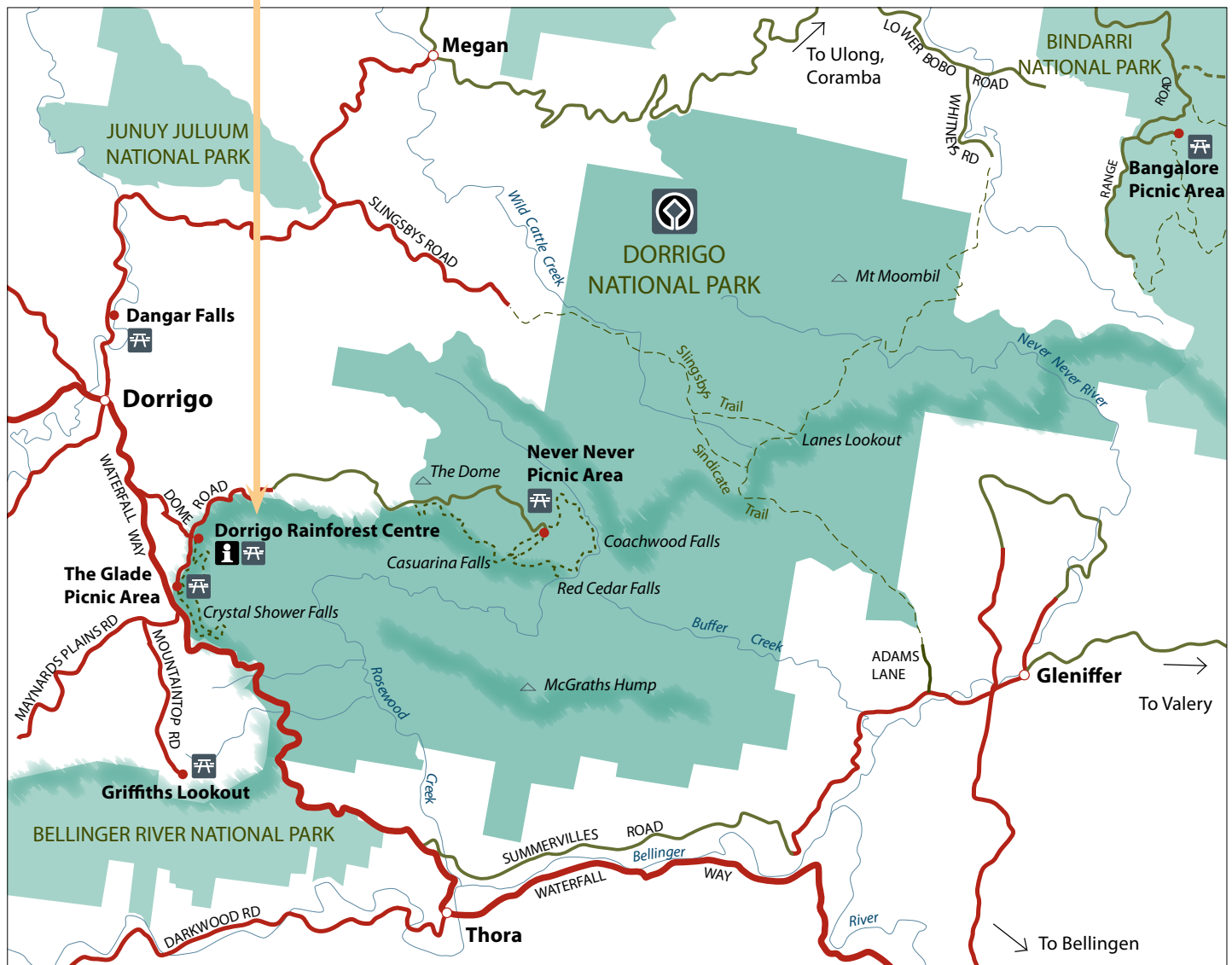
Dorrigo National Park

Location map

Meet at Dorrigo Rainforest Centre

Dorrigo Rainforest Centre is 4 km from Dorrigo, via Waterfall Way and Dome Road.

Dorrigo is 125 km from Armidale via the Waterfall Way, (approximately 1hr 45mins by bus) and 42km from the Pacific Highway/Waterfall Way intersection (approximately 50 mins by bus).



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Level of difficulty

Medium: sloping sections and steps on walking track
Not suitable for wheelchairs

What to bring and wear

Raincoats, hats, walking shoes, water, lunch
First Aid kit, including treatment for leeches and ticks.
Notebooks or laptops for recording data, cameras.

Park facilities

Toilets, electric barbecues and picnic tables at both Dorrigo Rainforest Centre
Raised boardwalks
Sealed walking tracks
Toilets, electric barbecues and picnic tables at The Glade Picnic Area

Class preparation

PLEASE NOTE that as part of their preparation, students should bring with them a list of questions for the Discovery Ranger, and record sheets with headings under which they can record their observations. They should also read the topics provided for the role-play exercise if planning to complete the full day program - see Student exercise sheet.

Supervision

Discovery Rangers will guide and encourage students as they carry out their field studies. It is the responsibility of the school to provide sufficient numbers of adult supervisors as required by the NSW Department of Education and Training. Students should be accompanied by their class teacher, who will be expected to assist in keeping the students on focus.

Student behaviour

For their own safety, students should be instructed to stay with the group at all times. They must not jump or climb on either the vegetation or any structures in the park.

If students will be visiting the National Parks Shop and making purchases, this should be done in groups of six or less, accompanied by a teacher and without any school bags or backpacks.

Photo permissions

Photos of your group may be taken during this activity for use in National Parks and Wildlife Service promotional products. Please advise any objections.

Excursion planner



Wonga Walk

National Park code of behaviour

- All features in the park are protected and nothing may be damaged or removed
- Stay on the walking tracks
- Light fires only in the fireplaces provided
- No pets are allowed
- Respect the rights of others and keep noise to a minimum
- Please take all litter home

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Role-play exercise

Suggested scenarios:

- Die-back occurring in the mature crowns of a patch of rainforest near The Glade Picnic Area.
- Smoke sighting at base of Dorrigo Mountain during high fire danger period.
- Accident and chemical spill on Waterfall Way within Dorrigo National Park.
- Proposal to establish a camping area in the Regeneration Area along Dome Road.
- A small population of cane toads is discovered along the Rosewood River.
- A group of overseas visitors is observed feeding Brush Turkeys at The Glade.

Students are issued with the Dorrigo National Park Plan of Management and Fire Management Strategy, photographs and other props. They are also each given a role based on actual job classifications within the NPWS, such as Field Officer, Discovery Ranger, Scientific Officer, Ranger, and uniforms to match.

Each team will first perform an investigation to gather geographical information about the site and the nature of the threat, before formulating a team response to the threat. Finally each team will present their findings and response to the group.

Student exercise

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Safety information

This document provides background information to assist teachers in their risk management planning for excursions. Please make your own risk assessment based on the information provided. Information is current as at January 2010. Contact the Discovery Coordinator if more information is required.

Activity: Discovery Ranger guided walk on boardwalks and bitumen sealed walking track. Return distance is from 1km to 6.4km, vertical rise about 75 metres.

Potential risks	Suggested control strategies
<ul style="list-style-type: none"> . Allergic reactions to plants and animal bites. . Poisonous and prickly plants, especially Giant Stinging Tree. . Snakes and ticks. . Biting insects such as bees, wasps and mosquitoes. . Pre-existing medical conditions . Interactions with other visitors. . Students lost or separated from group. . Variations in track surfaces (trip hazards) and overhanging branches. 	<ul style="list-style-type: none"> . Students to wear suitable walking shoes (no thongs or sandals) and long clothing. . Discovery Rangers to provide safety talk identifying hazards and emphasising care and respect for each other and the public. . First aid kits to be carried by group leaders. . Ensure students are closely supervised by teachers/carers, walk in an orderly manner (no running), remain on the track and keep together as group. . Hazards on track to be identified to whole group when encountered. . Brief teachers/carers on route and procedure for waiting at all track intersections. . Adjust walking pace on steep sections. . Students susceptible to asthma to carry personal ventolin inhaler. . Students at risk of anaphylactic shock to have access to own EpiPen according to individual health plan. . High risk students to be identified and monitored by teachers/carers. . Advise participants to check for ticks and leeches during and after the activity.
<ul style="list-style-type: none"> . Severe weather conditions. Strong winds and storms causing falling vegetation, hail or lightning strikes. . Exposure to sun, rain or cold conditions. . Atmospheric conditions such as dust or smoke. . Risk of bushfires in the area. 	<ul style="list-style-type: none"> . Head teacher to contact Area Office for advice if severe weather or very high fire danger is predicted. . Students should wear warm clothes and raincoats (no umbrellas) or sun hats and long sleeves/pants depending on forecast. . Postpone or shorten excursion if severe weather warning issued and high likelihood of storm impact in local area. . Postpone excursion in periods of very high dust or smoke pollution. . Postpone excursion in periods of very high to catastrophic fire danger.
<ul style="list-style-type: none"> . Steep slopes beside tracks. 	<ul style="list-style-type: none"> . Identify steep sections and walk in single file on inside of slope. . Stop on inside of slope to allow for other visitor to pass.

Safety information

Location:

Dorrigo Rainforest Centre
Dorrigo National Park
Dome Road, Dorrigo NSW 2453

Staff Accreditation:

All Discovery Rangers have current Senior First Aid accreditation and carry first aid kits.
All Discovery Rangers have been screened for child-related employment and have completed a Prohibited Employment Declaration

Access:

Suitable for all age groups and all fitness levels.
Wheelchair accessible carpark, picnic area, toilets, display, Skywalk and limited walking tracks.

Emergencies:

Staff are trained to deal with emergency situations and emergency procedures are in place.
The emergency evacuation area is located at the Dorrigo Rainforest Centre. Discovery Rangers have been instructed to call an ambulance whenever there is any doubt as to the continued well-being of a student or other visitor.
Ongoing supervision of students following first aid treatment will be the responsibility of the visiting school.

Contact details:

Site Management
NPWS North Coast Region
Dorrigo Plateau Area
Dome Road (PO Box 170)
Dorrigo NSW 2453
Ph: (02) 6657 2309
Fax: (02) 6657 2145

Education Program
National Parks Discovery for schools
Discovery Coordinator
Dorrigo Rainforest Centre
Dorrigo NSW 2453
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email: North.CoastRegionDiscovery@environment.nsw.gov.au
In an emergency call 000
NPWS after hours duty officer 02 6642 3620