

Biodiversity Survey

Kosciuszko National Park

Location

Kosciuszko National Park straddles the highest part of the Great Dividing Range and protects tableland, montane, sub alpine and alpine ecosystems, glacial landforms, limestone caves, the headwaters of major rivers, most of the NSW snow country and Australia's highest peak, Mt Kosciuszko. The park is home to rare, endangered and endemic plants and animals including the Mountain pygmy possum and Corroboree frog and is important for recreation especially the snow sports.

About this program

Students will be introduced to the meaning of 'biodiversity' and the use of field equipment before working in teams to assess the biodiversity of sample 10m quadrats along a transect in the montane forest. The students use a variety of equipment and techniques to gather information about the soil, weather, flora, fauna and impact of people on the area. There are three task teams of 3 to 4 students for each quadrat. Each task team collects different information and presents their survey results as a poster. It is then possible to compare data of each quadrat along the transect.

Objectives

Students will:

- demonstrate a basic knowledge and understanding of the term 'biodiversity' including genetic, species and ecosystem biodiversity
- explain why a biodiversity survey is conducted and how biodiversity can be measured
- use equipment and follow a sequence of instructions to measure and record biodiversity in the field
- conduct a biodiversity survey by completing individual and team tasks
- access information about local plants and animals from identified secondary sources such as reference books.
- prepare posters and present information collected to an audience in a clear and concise fashion.
- demonstrate the ability to evaluate the relevance of data and information collected from a biodiversity survey.

Program outline

Meet at the Kosciuszko Education Centre Sawpit Creek

Welcome, introductions, safety briefing	10 min
Biodiversity – what is it?	40 min
Field equipment and task briefing	30 min
Snack	15 min
Biodiversity survey	60 min
Lunch	25 min
Preparation of posters	60 min
Presentations and conclusion	30 min

Resources

A comprehensive outline of the program will be forwarded to the teacher before the school visit.

Additional references

www.environment.nsw.gov.au/bioregions/AustralianAlpsBioregion.htm
www.environment.nsw.gov.au/threatenedspecies/
www.environment.nsw.gov.au/NationalParks/parkHome.aspx?id=N0018
www.australialps.environment.gov.au/learn/index.html

Program

Levels:

Stage 4 & 5

Key learning areas:

Science

- Domain - Skills
- Conducting investigations
- Communicating information and understanding
- Scientific thinking and problem solving techniques
- Working individually and in teams

Key outcomes:

Science

- 4.14 follows a sequence of instructions to undertake a first hand investigation
- 4.15 uses given criteria to gather first hand data
- 4.18 with guidance, presents information to an audience
- 4.19 draws on conclusions based on information available
- 4.22 completes a variety of individual and team tasks with guidance
- 5.15 gathers first hand data accurately
- 5.19 uses critical thinking skills in evaluating information and drawing conclusions

Location:

Kosciuszko Education Centre, Kosciuszko Road, Sawpit Creek

Duration:

4.5 hours including lunch break

Availability:

Week days / October to May

Cost:

\$7.00 per student (Minimum fee \$140.00)

Equipment provided:

Teacher's notes and all worksheets, field scientific equipment, identification books and keys, resources and poster stationery are provided.

Additional needs:

Students should bring a clipboard and pens.

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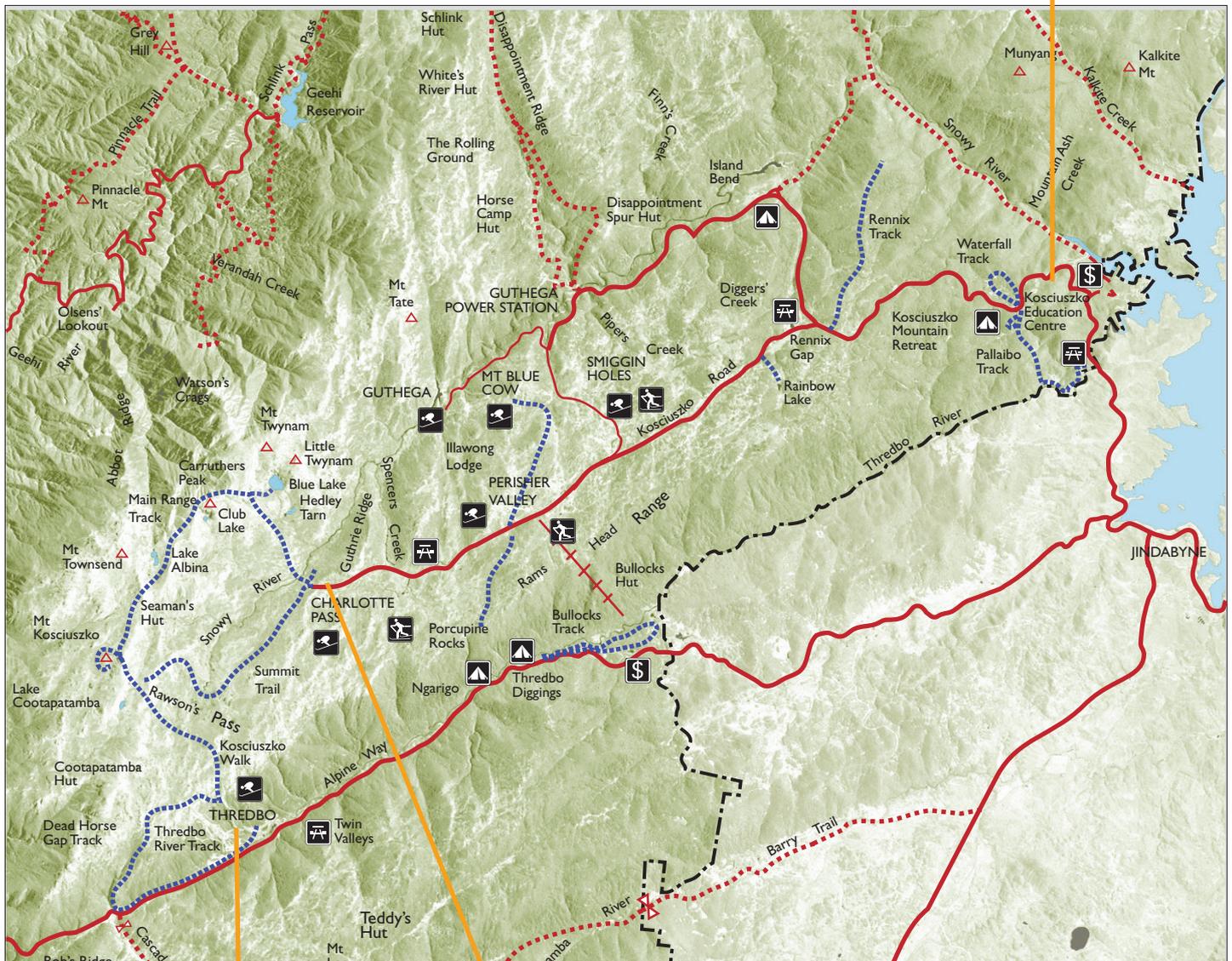
Kosciuszko National Park

Location map

Kosciuszko Education Centre...

Located on Kosciuszko Road at Sawpit Creek 14 km from Jindabyne towards Perisher. The centre is immersed in a mature montane forest, delivers quality educational experiences that help meet school syllabus learning outcomes. Kosciuszko Education Centre has interactive displays, coach and car parking, toilets, lecture room and picnic tables.

Kosciuszko Education Centre



Thredbo Village

Charlotte Pass

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Level of difficulty

Easy - Short walk in terrain with uneven surfaces and no tracks.

Access

Wheelchair accessible car park, picnic area, displays and toilets but please let us know in advance if you are bringing someone with special needs so that we can plan accordingly.

Cost

The fee is \$7.00 per student including park entry fee while you are with a Discovery Ranger. The minimum fee is \$140. A tax invoice will be forwarded to your school or excursion organiser after your visit. Teachers and parents free of charge.

Park facilities

Coach parking, classrooms, toilets, picnic tables and tea making facilities (for teacher and coach captains) are available.

What to bring and wear

Everyone should wear long pants, closed comfortable shoes and bring a sun hat, sun cream, jumper, raincoat with hood, adequate food and water and any necessary medications.

Supervision

Discovery Rangers will guide and encourage students as they participate in activities. The control and supervision of students remains the responsibility of the teacher. It is the responsibility of the school to ensure an adequate number of adult supervisors are present.

Excursion planner



*Research and presentation development
in the Kosciuszko Education Centre*



Date collection in the montane forest around the Kosciuszko Education Centre

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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Safety information

This document provides background information to assist teachers in their risk management planning. Please make your own risk assessment based on the information provided.

Activity description - Discovery Ranger guided activities in the forest.

Pre activity briefing - Participants will be briefed on expected conditions, potential hazards, appropriate behaviour, recommended clothing and emergency procedures at the start of the activity / day.

Safety equipment - Discovery Rangers carry radios and first aid kits, hold current first aid certificates and are aware of emergency procedures.

Potential risks	Suggested control strategies
Pre-existing medical conditions	<ul style="list-style-type: none"> Teachers will notify Discovery Coordinator of pre-existing medical / mobility conditions at least 24 hours before the visit ie return the "Pre-existing medical Information" form. Students susceptible to asthma, allergies or other conditions to carry personal medication and the teacher will be aware of their individual health plan. High risk students to be identified and monitored by teachers and carers.
Exposure to heat or cold	<ul style="list-style-type: none"> Information re appropriate clothes (closed, sturdy shoes, long pants, sun hat, warm hat, waterproof coat forwarded to schools prior to visit. Ensure participants have adequate drinking water, food and shelter.
Severe weather conditions including strong winds, snow, hail, lightning strikes, very high bushfire risk.	<ul style="list-style-type: none"> Check weather forecasts prior to the activity, monitor throughout the visit and adjust activity according to weather conditions eg stay indoors
Bites and stings (insects, spiders, snakes)	<ul style="list-style-type: none"> Students briefed on appropriate behaviour at start of activity / day eg 'look before sitting', do not touch.
Allergic reactions eg ants, nuts, plants	<ul style="list-style-type: none"> High risk students to be identified and monitored by teachers/carers. Students at risk of anaphylactic shock to have access to own EpiPen or other medication according to individual health plan.
Handling plant and animal matter that may result in poisoning, wounding or infection	<ul style="list-style-type: none"> Wash hands after returning from the field. Use gloves when appropriate.
Students lost or separated from group	<ul style="list-style-type: none"> Brief teachers and carers on route and procedure for waiting at all track intersections. Bushwalking group management practices eg buddy system, regular head counts and 'Tail end Charley' with regular stops are adopted
Trips, slips and falls	<ul style="list-style-type: none"> Discovery Ranger is familiar with activity site and be aware of variations in track surfaces. Continue to assess for hazards eg ice on tracks Discourage running
Traffic	<ul style="list-style-type: none"> Discovery Rangers will meet and greet children as they arrive and instruct them to wait in a safe location. Ensure everyone crosses the road under direction of teachers or NPWS staff.
Sticks, rocks & stones	<ul style="list-style-type: none"> Brief children to leave sticks & stones on ground at all times and to avoid climbing on rock boulders or large logs.

Safety information

Location:

Kosciuszko Education Centre
Kosciuszko Rd
Sawpit Creek

Staff Accreditation:

Discovery Rangers have current Senior First Aid accreditation, are competent in the activity they are leading, experienced working with groups of students in the natural environment, have excellent knowledge of the specific areas they are working in and are aware of the potential hazards of the location. Discovery Rangers have been screened for child-related employment and have completed a Prohibited Employment Declaration.

Emergencies:

Discovery Rangers are trained to deal with emergencies and emergency procedures are in place. The emergency evacuation area is located at the Kosciuszko Education 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 a student following first aid treatment will be the responsibility of the visiting school.

Contact details:

Kosciuszko Education Centre
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