



STEP Matters

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Diary Dates

19 October	Walk to Middle Harbour Creek
28 October	AGM and Talk on Lord Howe Island's Weed Program
14 December	Christmas barbecue

Walk to Middle Harbour Creek

Date: Sunday 19 October
Time: 9 am to 11.30 am
Place: End of Barrie Street,
East Killara
Grade: Moderate (a few steep,
rocky and tricky bits)
Contact: John Balint
(9498 7527)

There is still real wilderness in East Killara. We will walk through the land of the Guringai people and see how we are trying to reverse the environmental degradation of this amazingly beautiful land.

The walk will take a circuit through the East Killara peninsula, to follow the spectacular shoreline of Middle Harbour Creek. Along the way we will look at eight Bushcare sites where bush regeneration work is being done, and discuss the unique difficulties at each site.

Although the walk is not strenuous, there are some steep tricky bits, where care is required. We will need to do a small amount of walking on local streets to complete the circuit.

Hopefully there will still be some wildflowers out!

Remember to bring water and a hat as it can be quite hot at this time of year. Also, children are very welcome.

AGM and Talk on Lord Howe Island's Weed Program

Date: Tuesday 28 October
Time: 7.45 pm
Place: St Andrews Church
Hall (Vernon Street,
South Turramurra)
Contact: Neroli Lock
(9489 5794)

Lord Howe Island is one of Australia's most popular ecotour destinations. Situated 700 km off Sydney, Lord Howe Island is world heritage listed for its unique geology, bird and plant life. About 85% of the island's natural forest remains and seabirds nest in tens of thousands each year.

One reason Lord Howe Island has remained a gem of natural history is because of the low number of permanent residents. However this also means that there aren't many local people who can take part in environmental programs.

As with most other places in the world, some introduced plants have become weeds. The local management agency, the Lord Howe Island Board, has a small team of locals who carry out a range of environmental programs including some weed control. However, since 1995 local naturalist Ian Hutton has also been organising 'weeding' ecotours. Here people pay to visit the island for a week to assist with weed control programs in the mornings, and they spend the afternoons exploring the island on guided walks.

STEP Inc

Community-based Environmental Conservation since 1978
PO Box 697, Turramurra, NSW 2074

The program got a boost in 1998 when, through Rymill Abell, bush regenerators from the Lindfield and Lane Cove area became involved. Now there are six trips each year, with weeders from all states and even New Zealand.

After our AGM on Tuesday 28 October, hear Ian Hutton present a talk on how the program has evolved, and how it is contributing in a major way to preserving the unique flora of Lord Howe Island.

Report of Bantry Bay Walk

John Martyn

There are many reasons for the preservation of bushland, but the exclusion of the public from an area at risk to explosives blasts is not usually among them. However much bush around Bantry Bay between Castle Cove, Killarney Heights, Forestville and Seaforth is still with us for that reason.

Most is now part of Garigal National Park, and so is the historic explosives magazine complex on the western shoreline. The eastern part of the Castle Cove peninsula, with its expensive houses and views, was also preserved from housing and is now part of a bushland reserve.

The north end of Bantry Bay has two of the more spectacular scenic and landform features in the northern Sydney area. The Bluff is a splendid viewing spot, looking southwards straight down Bantry Bay towards the eastern suburbs. This was our first major stop on STEP's spring bushwalk led by Gerald Holder on Sunday 30 August.

The newly cut steps make it more easily negotiable, where previously the only descent, or ascent of the cliff was via an intimidating cleft or fissure. We did not descend here, but backtracked to follow the newly defined Harbour to Hawkesbury route down to the Natural Bridge. This is exactly as its name implies, a massive natural bridge of sandstone under which Main Creek has cut a tunnel. Fortunately it didn't collapse under the weight of the party.

Walking progress slowed on the Natural Bridge section because of the frequency of wildflower viewing stops on the fairly recently burnt valley slopes, dry and exposed on the east side and more shady and damp on the west.

We joined the Currie Road Track, a firetrail, and headed south, still following the Harbour to Hawkesbury route, eventually to join with the Magazine Track.

Beside the latter we saw a spectacular display of blue sun orchids (*Thelymitra ixioides*) that seemed to go on and on. There was even a pure white variant. Nobody in the party, including several experienced amateur botanists, had ever seen a white one before.

Further on we began to descend towards the water as we approached the magazine complex. The beautiful heath plant *Leucopogon setiger* was common here, and in full bloom, with its massed, tiny, pendulous, delicately fringed bell-like flowers. It was one of many flowering shrub species we encountered between here and Flat Rock Beach, along one of the most beautiful walking routes in the Sydney area.

The beach itself is a gem of the 'best-kept secret' variety. It is sandy, sheltered and features a backdrop of waterfalls.

The return to the start of our walk was quite straightforward but there was no real let up in the interesting flowers we encountered, and we got to visit some more beautiful lookouts.

The walking route will be featured on our forthcoming Middle Harbour map series (see next page).



A group of volunteer weeders on Lord Howe Island

Middle Harbour Map

Bruno Krockenberger

In our last newsletter we advised that the launch of our maps of walking tracks in Middle Harbour would be delayed to February or March next year. That schedule still holds, but your editor got a little bit too enthusiastic in stating that the map would be available before Christmas!

The extensive and intensive checking work of the tracks has proved to be a mammoth, time-consuming job and we are determined not to compromise the quality of the finished product for the sake of a few weeks. Anybody who has seen the mapping team at work cannot doubt their enthusiasm and must admire the dedication invested by them in this project.

What's Special about Native Bees?

Jenny Schwarz

On 26 August Dr Michael Batley gave a fascinating talk on Australian native bees. For the 25 or so people present walking or working in the bush will never be the same again.

We learnt that Australia has over 1500 species of bee. They range in length from 24 mm to a tiny 2 mm and may be red and fluffy, metallic green, striped, spotted, or an inconspicuous black. Even the bigger ones may be hard to spot as they flit, hover and dive around their favourite flowers.

Some of the bees have only recently been described and others are being found out of their previously known range. Diagrams and magnified photos let us understand their various adaptations for feeding etc.

Native bees are generally good pollinators. Introduced honey bees may not be as useful because they regurgitate nectar and mix it with the pollen which makes it stick to them instead of dispersing it on to other flowers.

Plant evolution has determined insect pollination. Flowers that are open and shallow make access to their nectar easy and so are pollinated by a number of bees.

The nectar from deeper, more complex flowers like those of the pea family can only be reached by bees with special adaptations. For example *Euhesma* has long palps and leg hooks to enable it to feed on pea flowers. Long-tongue bees, like the beautiful blue-banded ones, are generalists while short-tongues are more often specialist feeders.

Some flowers e.g. *Solanaceae* (which includes tomatoes and capsicums) and *Hibbertia* have pollen stored in sacs and native bees can 'buzz' it free. *Persoonia* are pollinated by a few bees with very short tongues and very long hairs.

Flower-bee interaction may not be of mutual benefit. The male of one bee species hovers around the flowers of *Lambertia formosa* because they attract the females but he doesn't transfer pollen while doing so.

Only one local bee species (*Trigona carbonaria*) forms a social hive and this is also the only one that doesn't have a sting. The rest are solitary and lay their eggs in holes in the ground or in hollows in timber or plant stems (e.g. Xanthorrhoea).



Trigona carbonaria

A few cuckoo bees will parasitise other bees. Native bees do not die after they sting as introduced honeybees do, but go on to sting again.

Social bees prefer Turpentines in which to build their nests but will nest successfully in artificial hives. Semi-solitary ground nesting bees may have several hundred entries to a big underground chamber where the pupae may spend up to two-and-a-half years before emerging.

Reed Bees and Carpenter Bees are mainly solitary but nest communally. Every female can be queen and there are equal numbers of males and females, unlike the honeybee where the queen is the only female and all the workers are male.



Reed Bees, Australia's least known social bees

Bees are often seen but not recognised, but after this wonderful presentation more of us are aware of a new and varied world of interactions in our bushland. Knowledge of the bees' appearance and familiarity with their life histories can help us preserve suitable environments in which they can live and reproduce.

Michael showed some beautiful photographs of flowers and bees. His patience was particularly admired after he showed us a short video of his efforts in getting a bee to stay still long enough for the camera to record it.

Native Bees of the Sydney Region: A Field Guide, co-authored by Michael Batley, can be obtained from the Australian Native Bee Research Centre (www.zeta.org.au/~anbr/).

Rezoning of B2 Corridor

Bruno Krockenberger

Ku-ring-gai Council has received a rezoning application for the abandoned B2 corridor. The application seeks to rezone the affected area from its current reservation of 'county road proposed' to 'part residential 2(c), part residential 2(b) and part open space 6(a)'.

The purpose of the rezoning is to make residential development permissible on certain areas of the land currently allocated as the road corridor and to maintain areas of bushland and open space. This is not related to the proposed F3 to Sydney Orbital Link.

Ku-ring-gai Council has sought the community's views on the proposal (submissions had to be made before 10 October). Further information can be obtained from David Demer on 9424 0947.

Would You Like to Become a Committee Member?

Would you like to help protect your local environment at a grass roots level? We're currently looking for some new committee members.

Our AGM is nearly upon us. If you're interested in joining the committee please contact Michelle Leishman (9489 8972).

Pam Morse Environmental Education Awards

Michelle Leishman

Each year STEP offers research or educational grants, through the Pam Morse Bequest Fund, for projects relating to managing and conserving urban bushland. This year we offered grants to local schools undertaking environmental education projects.

We are pleased to announce that two schools will receive a grant in 2003 – Warrawee Public School and Ku-ring-gai Creative Arts High School.

Warrawee Public School received a certificate and cheque for \$150 for their project to identify native trees on their school site with special nametags, to increase student appreciation and awareness of native trees.

Ku-ring-gai Creative Arts High School also received a certificate and cheque for \$150 for their project to restore native bushland on their school grounds by removing the invading exotic plant *Agapanthus* and re-planting with local species. The plants will be provided by Ku-ring-gai Council's Community Nursery.

Congratulations to both schools on their environmental education initiatives!

Landcare Events

During October there will be a number of activities which may be of interest.

12 to 19 October — Weed Buster Week

NSW Weedbusters invite people to participate in a fun-filled week of education about weeds and their effect on the environment.

Mary-Lou Lewis (0425 233347)
weedbusterweek@yahoo.com.au

19 to 25 October — Water Week

During National Water Week people are encouraged to protect, conserve and get involved in water resource management. As a community we need to find solutions and be aware of the ways to manage our water resources today that will not threaten the ability of future generations to meet their needs.

Kylee Gray (9228 6475)
www.waterweek.nsw.gov.au



Serene upper tidal section of the Lane Cove River in West Chatswood; there are good walking tracks, including the Great North Walk, along both banks