

G E C K O Winter 2006

The Newsletter of the Blue Mountains City Council Bushcare Program



From the deep and dark Blue Mountains winter comes another issue of Gecko, your quarterly dose of Bushcare warmth. This time around we have a number of reports from great volunteer activity right across the mountains. Human Dragonflies in the Winter Magic Parade, the wonderful work of Darks Common Landcare Group and the on-ground innovation at Popes Glen. We also report on our first series of Biodiversity Workshops – an experience which has been eye opening and inspirational to Blue Mountains volunteers wanting to learn more about their local environment.



We have recently completed our Bushcare Annual report for the 2005/06 period. The full version is available on our website www.weedsbluemountains.org.au/news.asp or you can ask me for a copy. Highlights include profiles on our 9 new Bushcare and Landcare Groups and a combined volunteer contribution of 7,437 hours! That's a 12% increase on last year. It nicely represents the combined impact of Bushcare Power! Thank you to everyone for making such a valuable contribution.

Happy Weeding,

Chris Dewhurst
Bushcare Team Leader



DATES TO NOTE

September 1 - Blue Mountains Stream Bank Workshop - Bushfire Control Centre (Shell Corner, Katoomba) and various Field Sites. This free workshop is for Professional Contractors, Council Staff and Community and will be facilitated by Linda Thomas (BMCC). Presenters Brad Davies (CMA), Paul Bennet (CMA) and Lyndal Sullivan (A&S Bushcare) will discuss the range of stream types that occur in the Blue Mountains and the impacts associated with urban development. We will look at various options for dealing with erosion and sedimentation of our local streams. RSVP essential please email csinclair@bmcc.nsw.gov.au to book before 29/8/06

September 9 7.30am - Bird Observing Morning - Knapsack Creek. Guided by Dick Turner. Meeting place – Barnet St Glenbrook, Entrance to Knapsack Reserve (next to Knapsack Oval). Contact: Nathan Summers 4780 5623 for more info.

September 16 Spring Biodiversity Workshop – Wilson's Glen, Woodford. This workshop will be an introduction to key concepts relating to the observation of flora and fauna of the local area. To book email: cdewhurst@bmcc.nsw.gov.au or Call Chris 4780 5528

October 14 Historic Walk 3pm - Knapsack Creek. This walk will look at the historic railway sites of Knapsack Ck including the Lapstone Zig Zag, Knapsack Bridge and Skarrat Park. Meeting place – End of Knapsack St, Lapstone (past the RAAF Base), (at top of Lapstone Zig Zag) Duration Approx 3 hrs. Moderate walk included down the escarpment slope of Zig Zag. Bring sturdy walking boots, drink and a snack.

October 28 – Living Streams Streamwatch volunteer celebration – Wentworth Falls Lake. This event will incorporate a celebration of the efforts of Blue Mountains Living Streams Streamwatch volunteers, as well the sharing of information about local water quality and relevant capacity building activities. Times and further details to be confirmed. Contact: Amy St Lawrence, 4780 5553.

Dark's Common Landcare Group by Cathy & Craig

Dark's Common is a Department of Conservation and Land Management reserve lying between Glenbrook and Lapstone. It is administered by a Trust made up of local volunteers who were delighted that Council could assist with the setting up and on-going support of a Landcare group. Linda from Council supported us initially and Jill has now taken over from her. We have been meeting every month for almost two years with a committed core of members, even on the hottest days, and others who come when they can

The reserve has significant disturbance at the edges. Houses border the two long edges, and there is a big weed problem behind some of these. The core of the reserve is in fairly good shape and our task has been to clean up patches of weed infestation in the centre as well as working slowly towards the badly affected areas at the edges. Because of the size of the reserve, 33 hectares, our efforts are concentrated for the moment in about six main areas. Once these are stabilised we will move on to other bits. Our biggest challenge is to keep walking past really badly infested areas and stick to the management plan! Unlike some groups, we don't have serious drainage or erosion problems, except at the northern end where run-off from the road has produced a plume of weeds.

The reserve is well-used by local people and visitors

who use the walking trails, enjoy the spectacular views over Glenbrook Gorge, and examine the historical remnants of the construction of the Railway Diversion from 100 years ago.

The main walking track follows the route of the old railway that was built to service the construction of the railway cutting and tunnel in Glenbrook Gorge. The railway carried bricks for lining the tunnel. It was loaded at the old railway tunnel - that can still be found under the highway opposite the RAAF base - to the railway construction camp on The Bluff. A funicular railway driven by a steam engine then delivered the bricks to the eastern end of the tunnel in the gorge. The cuttings and tunnel are still used for the railway to this day. We have lots of positive feedback from people walking past as we labour in the heat.

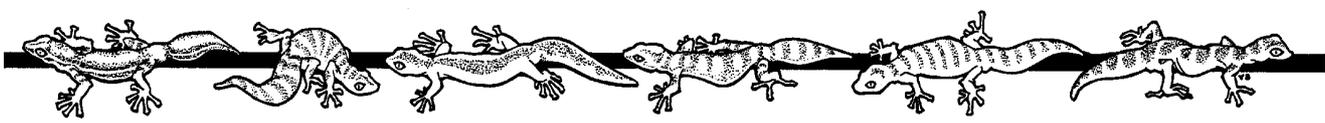
Plans for the future include letter-boxing houses adjoining the reserve with information about our group asking for their help by not dumping garden waste behind houses. We may also organise an information day at some stage.

In the meantime we plug away, helping our local reserve, making new friends and sometimes enjoying Craig's sponge cake for morning tea!



The Dark's Common Landcare Group - L to R - Ian Charlton, Mariko Ward, unknown, Bob Chapman, Kathy Chapman, Ray Jelps, Jill Rattray (BMCC), Jim Ward

On-line Action: www.weedsbluemountains.org.au or join the Email list cdewhurst@bmcc.nsw.gov.au



Reclaiming The Lost Swamp at Popes Glen

The Popes Glen Bushcare Group constructing the temporary dam wall in the creek



Popes Glen has an enterprising Bushcare Group. They have undertaken the challenge of rehabilitating this willow dominated silt flat situated at the head of Popes Glen Catchment. Assisted by a three year grant, they are well on their way to planting several thousand small trees, shrubs, ferns and sedges to recreate swamp type vegetation. After a very dry autumn, this temporary sandbag wall has been built to divert some of the creek flow over the young sedge plantings to maintain the semi-permanent water inundation during this important establishment phase.

The project requires a phased strategic approach to the removal of the willows, because these currently stabilize the silt plug, and because of the potential weed invasion as a result of over clearing. Meanwhile some of the pilot plantings of shrubs (from previous years) have met with a low success rate where the dense mats of willow roots create rather anaerobic soil conditions. Undeterred, with great turn outs on Bushcare days and a good deal of vision this group has the energy to overcome this challenge. In the words of the Group coordinator Alan Lane; "We subscribe to the old saying, 'Bite of more than you can chew, then chew like buggery!' Thanks to the wonderful Pope's Glen team, and committed support from Council, our ambitious plan is transforming the headwaters of Pope's Glen Creek!"

Andrew Forster (BMCC)



Beauty or Beast?

This photo was taken inside Snowdonia National Park in the North of Wales, where I was recently holidaying. Looks pretty doesn't it? However, *Rhododendron ponticum* is causing problems in wild and disturbed areas across the United Kingdom, particularly Scotland and Wales. And that's not all!

There have been many sightings of feral plants throughout the Upper Mountains, in urban edges, within the National Park Boundary and in natural bushland, one particular occurrence directly threatens a population of *Epacris hamiltonii*, near Mount Hay Road. An important plant to keep an eye out for on Bushcare sites, don't you think?

Tracy Williams (BMCC)



Introducing the new Glenbrook Lagoon Bushcare Group!



Volunteers from L to R: David Porter; Meg Lambert; Neil McGlashan; Rima Darcy; Sophie Rochester; Colin Rochester; Julie Neumann; David Matheson; Vicki Brown; Ray Beaver; Ami-Yvonne Harris & Troy Harris

The new Bushcare Group at Glenbrook Lagoon is off to a flying start. Since December 2005, the rehabilitation of Glenbrook Lagoon and its surrounds has received huge support from the community. The group has already planted 100 trees at "the beach" on the northern edge of the lagoon. Bushcare extends a big thank you to all new members of Glenbrook Lagoon Bushcare Group. We wish you many happy days of learning about & helping to regenerate your local bushland..... Welcome to the program!

Brit Rollo (BMCC)

What's all the flutter about



Spectators at this year's Winter Magic festival might have been a bit bemused by the plethora of dragonfly images and themes in the festivities this year. They were everywhere: in the parade, on masks, on badges, on banners and flags, on posters, in the art street exhibits and in pamphlets handed out by Consoc and by the BMCC. There was even a dragonfly on stilts handing out giant dragonfly infocards. So why all the flutter?

The reason is the endangered Giant Dragonfly! The Giant Dragonfly is one of the largest dragonflies in the world and following the collapse of the Wingecarribee Swamp in 1998 in the Southern highlands the Blue Mountains are increasingly being recognised as one of the remaining strongholds of this endangered species.

In response the Blue Mountains Conservation Society, the Blue Mountains World Heritage Institute, the National Parks and Wildlife, the Hawkesbury Nepean Catchment Management Authority and the Blue Mountains City Council are working together to raise the profile of the endangered Giant Dragonfly and its swamp habitat in the Blue Mountains. The Giant Dragonfly has been a supreme survivor, part of a family of dragonflies believed to have persisted largely unchanged from the early Jurassic period 190 million years ago. However, having survived the cataclysmic end of the dinosaur age it has been pushed to the edge of extinction in the modern age by human impacts.

In the Blue Mountains threats include groundwater extraction, urban development, urban runoff,



The Giant Dragonfly Parade

weed invasion, increased fire frequency and grazing of the Giant Dragonflies swamp habitats. The effect of climate change is another great unknown.

The return of our home grown Giant Dragonfly expert Ian Baird, who will be continuing his research on the Giant Dragonfly with a PhD on the ecology of the Giant Dragonfly in 2007, represents a real opportunity to increase our knowledge about and practical management of this unique and enigmatic species. Opportunities will also exist for dedicated volunteers to assist in surveying the distribution of the Giant Dragonfly in the Blue Mountains as part of that research. The Spring issue of the Gecko will provide further details.

For more information on the Giant Dragonfly see the threatened species web page on www.bmcc.nsw.gov.au.

Michael Hensen (BMCC)





Bushcare Biodiversity Workshops

By Chris Dewhurst (BMCC)

The first Bushcare biodiversity workshops have been held in Springwood's Deanei forest, the Megalong Valley and Mt Wilson. Our aim was to introduce the skills of biodiversity monitoring to Bushcare volunteers in a field based environment. We hoped to increase the depth of knowledge Bushcare volunteers have about their reserves, and increasing their appreciation and motivation to continue their stewardship.

Flora concepts

The participants were introduced to field based identification techniques using dominant plant species of the area. The group was walked around the reserves by facilitators and shown how to use common plant field guides whilst developing observation concepts based on a plants scent, bark, and form. Other concepts of geology and ecology were also discussed.



Carol Proberts leads the bird watching walk



Eric Mahony (BMCC) explains the key features of *Pittosporum revolutum* in Deanei Reserve

Spotlighting

After a meal participants re-convened to try their hand at spotlighting the bush after dark. Special spotlights containing red filters were used, and clear paths into and out of the reserve were determined. These walks yielded mixed results with the highlight being the spotting of Greater Gliders in the Megalong Valley.

More workshops are planned so get involved

We will be running more biodiversity workshops in the future, and all existing volunteers are welcome to attend. The next one will take place on Sat 16th September 2006. Email cdewhurst@bmcc.nsw.gov.au or Call Chris on 4780 5528 to book. The workshop will generally run from about 1pm to 5pm on each day.

Acknowledgement -This workshop could not have gone ahead without the collaborated effort of staff from Hawkesbury Nepean Catchment Management Authority (Lithgow), Blue Mountains City Council "City Solutions" and "BM City Services" groups and the expertise of Carol Proberts.

Fauna concepts

The group was shown how to use binoculars most effectively and other basics of bird watching. Skills of observing fauna often relate to revealing the clues they leave behind – their tracks, scats, nests and hollows. These can be used to build a picture of what inhabits your local reserve and can help guide your observations. The group also set up "hair tubes" which are used to indicate the presence of small mammals. These will be collected by the group and the results published on our website and future editions of the Gecko.



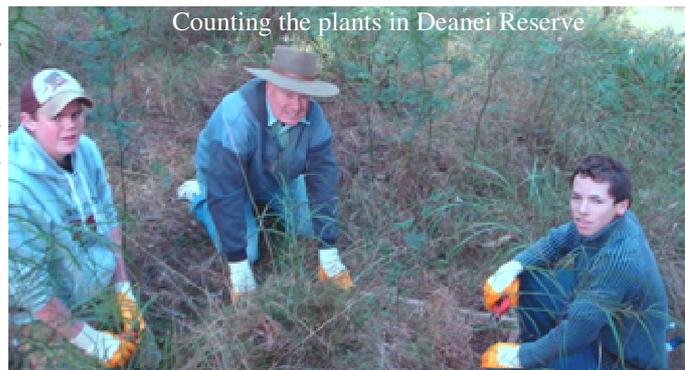
Toula and Pat closely examine an *Allocasurina* needle





Post Fire Vegetation Surveys, Deanei Reserve and Knapsack Creek

During the summer of 2001/2002 a series of bushfires went through the Blue Mountains and many of our Bushcare sites were burnt as a result. Two of the sites that were effected included the Deanei Reserve at Springwood and Knapsack Creek at Lapstone. After these fires had taken place, both Deanei and Knapsack Bushcare groups had undertaken surveys to measure the regrowth that took place after the fires. It is 2006 and the latest results have been collected. The methodology used was based on a modification of a survey method that is utilized by the National Parks & Wildlife Service (now Dept of Environment and Conservation). 10 x 10m quadrats were chosen and each species was noted with a 'score' given on the amount of cover and abundance in the quadrat. This method is a convenient way of obtaining data over a quadrat in a relatively short time frame. Four surveys have so far been undertaken, two were initially done in 2002, one in 2003 and the last surveys were completed between March and June 2006. Samples of the fuel loads since the bushfires were also undertaken.



In the Deanei Reserve there were two quadrats set up in two different vegetation zones. One quadrat was placed in the grassy upper slopes dominated by Mountain Bluegum (*Eucalyptus deanei*) and Grey Gum (*Euc punctata*), this being on fertile clay soil derived from shale. The other quadrat was placed on the mid slopes where the shale geology intergrades into sandstone, this area being dominated by Turpentines (*Syncarpia glomulifera*) and Blue Mountains Mahogany (*Euc notabilis*) and also includes Grey Gums (*E. punctata*), Smooth Barked Apples (*Angophora costata*) and White Stringybark (*Euc globoidea*). The Knapsack site had a quadrat placed on the mid slopes above Knapsack Creek, this being a dry sclerophyll woodland community dominated by Yellow Bloodwood (*Corymbia exima*), Narrow Leaf Ironbark (*Euc cebra*), Narrow Lead Stringybark (*Euc sparsifolia*) and Grey Gum. The underlying geology are Rickaby's Ck Gravels giving rise to a sandy soil.

Results - Deanei Reserve

One of the more interesting results so far has been the change in the composition of grasses since the fires. In the fertile Bluegum quadrat, grasses dominate the understory. There was an immediate colonization of Weeping Grass (*Microleana stipoides*) and Hedgehog Grass (*Echinopogon caespitosus*), which within a few years these species plummeted dramatically to be superseded by Kangaroo Grass (*Themeda australis*), Speargrass (*Stipa sp*) and Basket Grass (*Oplisminus imbiculus*). Other results in the Bluegum quadrat included a substantial drop in some of the more herbaceous plants that initially colonized the quadrat including *Centella asiatica*, Pennywort (*Hydrocotyle pedunculata*), Pastel Flower (*Psuederanthemum varabilis*), Bluebells (*Wahlenbergia sp*), *Laginifera*, *Poranthera* and Indian Weed (*Seigesbeckia orientalis*). There has been a dramatic increase in shrubs in recent years including Everlasting (*Ozathamnus diosmifolium*), Red Pittosporum (*Pittosporum revolutum*) and Wattles (*Acacia parvipinula*, *A longifolia* and *A longissima*). Other herbs that increased over the years include Stinkweed (*Opercularia sp*), Kidney weed (*Dichondra repens*) and *Lomandra gracillis*.

In the 'Turpentine' quadrat one of the more notable results was the dramatic increase in species as each survey took place. (21 species in 2002 and 44 species in 2006, discounting 10 species that disappeared over the 4years). There was also a great change in grasses with an initial presence of Basket Grass being superseded by Spear Grasses (*Stipa sp*), Hedgehog Grass, Wiry Panic (*Entolasia stricta*) and *Panicum sp*. There was also a decline in Pastel Flower, Forest Nightshade (*Solanum prini-folium*) whereas *Lomandra gracilis*, Wonga Vine (*Pandorea pandorana*), Stinkweed and native Twining Peas such as *Desmodium* and *Glycene* make dramatic increases. Many species of Orchids were sited over the different surveys including Greenhoods, Bird, Tiger and Helmet Orchids and also Pixie Caps. Much epicormic regrowth was noted with the trees. Shrub species also begin to appear several years down the track including Native Holly (*Podolobium ilicifolium*), Blueberry Ash (*Eleocarpus reticulatis*), *Ozathamnus diosmifolium* and Green Wattle (*Acacia parramatensis*). Also of interest in both quadrats was that there has been a distinct drop in soil pH (i.e. more acid) since the fires.

Knapsack

The Knapsack survey site was situated on a sclerophyll woodland community on sandstone type soil. There was a much smaller increase in species numbers over the years. A high number of *Lomandra* species occurred on site including *L gracilis*, *L glauca*, *L multiflora* and *L longifolia*. Hopbush (*Dodonea triquetra*) was the main colonising shrub after the fire and continues to grow however we also have Narrow Leaf Geebung (*Persoonia linearis*), Native Holly, *Epacrid sp*, Thyme spurge (*Phyllanthus thymoides*), Blackthorn (*Bursaria spinosa*) and a recent appearance of *Davesia ulicifolia*. Most Wattles increase in population (*Acacia ulicifolia*, *A falcata*, *A brownii*, *A*), however the softer fine leaf Wattle (*A parvipinula*), distinctly declines after immediate germination. Seedlings of Narrow Leaf Stringybark (*Euc sparsifolia*) also disappear after initial sitings, whilst Bloodwood and Ironbarks seedlings steadily persist. There has been an increase in grasses over the years including Kangaroo Grass (*Themeda australis*), Weeping Grass and *Panicum sp*. **Nathan Summers (BMCC)**

Your Newsletter: This newsletter is compiled by Chris Dewhurst (assisted by Sharon Huxley) from Blue Mountains City Council with contributions from Council's Environmental Management Staff and members of the Bushcare Network. It is sent to Bushcare volunteers and other interested people. Contributions and suggestions are always welcome, as are requests for alterations to the mailing list. We can be contacted at Blue Mountains City Council, Locked Bag 1005, Katoomba NSW 2780.

