

Inside this issue:

Biodynamics in Your Garden	p1
HRLN Projects	p2
Soils are Alive	p2
Sustainable School	p2
New Members	p3
Landcare at Stockton Cemetery	p3
Regional Landcare Update	p3
Landcare Lanka	p4
Dates for Diary	p4
Contacts	p4

BIODYNAMICS IN YOUR GARDEN

At the Dyer's home in Raworth is a 3,000 sq. mt. backyard, part of a former dairy farm which stretched from Morpeth Road (and the old Morpeth railway) to the hilltop at Raworth. The soil is rich and fertile above a bed of clay.

After clearing 30 non-native trees and shrubs which were choking full-grown natives, undertaking major drainage works and establishing a successful "test" veggie garden the family were keen to learn about applying Biodynamic principles in an urban, minimal-fuss setting.

On a sunny day Hunter Biodynamic Group members met on the property for a Biodynamic Practices for the Home Garden Field Day. The new, purpose-built trailer arrived with the Group's gazebos, tables, library and refreshments.

The group split into two teams, one to build a compost heap and one to prepare material to fill the cowpat pit already constructed in the ground. Green and dry material was mainly sourced from the garden and then sorted and layered for the compost "cake" as we ensured water was kept up to it.

As each layer was built the younger Dyers, aged 2 and 4, provided assistance and advice. They also placed a 'prep-ball' in the compost heap and stirred mixed valerian and water in a pot. Valerian helps dampen down the top of the compost heap and also encourages earthworms.

The chickens also helped with sorting material on the ground but with adult help the compost heap was completed in time for lunch!

The other team donned long rubber gloves to do 60 minutes of serious mixing of five buckets of cow dung for the pit. Approx. 95% cow dung, 2.5% finely ground egg shells and 2.5% blue metal 'basalt' dust was used. Valerian and water concentrate is usually added. Mature cowpat pit material provides simple preparations ready for your compost heap or your garden or paddock.

Biodynamic preparations used in compost making create high quality humus with the least amount of mechanical or physical input over time and a good balance between protein and carbon.

Aerobic and anerobic material influences the creation of humus e.g. rock dust, lime, local clay and organic material, cow manure, chicken litter (if low in potassium add hardwood sawdust, weeds). Only one turn of the compost is normally required as the material 'matures'.

Hints and advice from experienced biodynamic practitioners on enhancing the land and growing herbs, vegetables, citrus or planting natives were all part of the activities that day. Afterwards we all shared lunch in the shade of the Macadamia tree, perused the HBG library, bought books and we drew the raffle - and I cannot remember who won it!

Nadine Dyer



Photos Michael Dyer & Ruth Hardy

HRLN PROJECTS

- HRLN Website upgrade
- Long term research into climate change in the Hunter for Sustainable Farming initiatives
- River Redgum project—local provenance plantings along the Hunter River
- Educational resources - incl. mobile Puppet Theatre
- Workshops - Junior Landcare & Adult education
- Research project—Landcare and communities
- Landcare facilitation at a regional and state level - representation on Landcare NSW
- Local Council partnerships to address land and water conservation and rehabilitation needs

SOILS ARE ALIVE

There is such a variety of soil organisms living in the earth of the Hunter Valley. Bacteria, fungi, microarthropods, nematodes, earthworms and insects, we've got them all! They live on soil organic matter or other soil organisms, performing vital roles in working to keep land in the Valley healthy. Some soil organisms are involved in inorganic molecule transformation. Soil organisms role in soil fertility is wide ranging from:

- helping soil to form from original parent rock material
- contributing to soil particle aggregation
- transforming nutrients from one form to another
- assisting or hindering water penetration into soil
- improving the nutrient cycling
- assisting plants to obtain nutrients from soil
- minimizing disease in plants
- degrading toxic substances in soil

Most soil bacteria are usually about one micron in length or diameter (1,000 microns in 1 millimetre) but some are up to several microns. Size can vary with environment. High levels of nutrient in one environment may have bacteria larger than those in nutrient poor conditions. An estimated 60,000 different bacteria species.

Soil mites such as the scavenging Orbatid mite play a vital part in creating humus and forming soil by breaking down organic material to a bacteria level which is consumable.

There is a mutually beneficial relationship of soil microbes with plants. Plants provide sugars to microbes and microbes make nutrients available for plants.

Next time you go for a walk, work in your garden or just enjoy the view, remember there are lots of 'tiny critters' working in the soil for your benefit. Maybe you will even see some!

Helen McClelland

SUSTAINABLE SCHOOL

Plans associated with the new St. Phillips Christian School at Cessnock showing development of their 40ha. Lomas Sustainability Park were displayed at the National Landcare Conference along with other groups and organizations presenting efforts to address the gamut of environmental and sustainability issues relevant to our Australian scene:

- Land degradation and the means to redress this
- Weed identification and management
- Building and extending carbon sinks in and on soil
- Being energy conscious in the construction of new buildings and aiming for minimal energy when buildings are in use
- Sparking wider community interest through establishment of local environmental walks to observe local flora and fauna and linking into the Wonnarua Nation heritage of the site.

The project highlights contributions schools can make to our environment.

The conference provided insight into issues confronting Landcare and has enabled the vision of Lomas Park to be enhanced in a wider perspective.

St. Phillips environmental team looks forward to sharing their sustainability experiences with other schools at the NSW Landcare and Catchment Management Forum in the Hunter, first week of September (Landcare Week).

Leslie Pearson



Explaining Lomas to Christine Cummings from Holbrook

WELCOME TO NEW MEMBERS

Three Individual Members

LANDCARE AT STOCKTON CEMETERY

Stockton lies across the Hunter River estuary from Newcastle's city hub. It is known for its sand dunes, surfing beaches and wetlands. Fishing, forestry, textiles, shipbuilding, mining and smelting industries are all part of its history. So are the shipwrecks along its coastal areas and its 19th century buildings.

Stockton Sandspit and Fullerton Cove Ramsar wetlands attract migratory birds like the Curlew Sandpiper and Bar tailed Godwit who use estuary mudflats and wetlands to build their energy supplies before long flights north.

From the 1980's introduced species like Bitou bush and Spiny Rush and new mangroves saw waders significantly reduce in the area. Since then measures to improve the bird habitat include lagoon excavation, the western weir rock gabion, young mangrove and Bitou bush removal and native plantings. Monthly estuary wader counts, weed control, bird observing and bird hide management are some activities undertaken by local groups.

In the 1890's Stockton Cemetery was established (near the Sandspit) with some 4,000 current burial sites. Half its 11.6 ha. are vegetated with mainly Coastal Sand Apple and Blackbutt forest. Since 2009 Stockton Landcare residents have worked to tidy up the Cemetery and restore the appearance of landscape along Fullerton Street.

We work with Newcastle Council to protect vegetation structure and increase plant species biodiversity for surrounding Cemetery bushland and have:

- Cleared weeds growing on and around grave sites e.g. Lantana, Bitou bush, Ragweed and Cobblers pegs (Farmers friends).
- Removed weeds on Fullerton Street bank and planted Wattles, Banksia integrifolia, Leptospermum, Coastal sand apple and Tuckeroos.
- Planted 3,500 native trees and shrubs including *Lomandra longifolia*, *Cupaniopsis acmenoides* and *Acacia longifolia* (75% survival rate).

We were excited to find *Mactura cochinchinensis* on the Fullerton Street bank and preserved this native creeper.

Newcastle Council have assisted us with funding for restoration and are developing a draft Vegetation Management Plan (VMP) which will identify bush regeneration required over the site and adjoining bushland conservation.

Stockton Landcare Group meets 2nd Sunday monthly (March to October) at 12.30p.m. Tel: Steve Ford 49281445

Steve Ford



REGIONAL LANDCARE UPDATE

Australian Wetland Alliance Forum February 2 at Hunter Wetland Centre, 412 Sandgate Rd, Shortland 1.30-4.30p.m. RSVP 25 January Tel: 1800 816 147 Email: Ballina@wetlandcare.com.au or info. www.wetlandcareaustralia.com.au

WetlandCare Australia National Art & Photography Exhibition winners announced on the day.

Project Aware on the Coast course at Port Stephens (marine life & marine debris). Info. night 20th February 7.00-8.30p.m. at AFL Clubhouse, Tomaree Sports Complex. Bookings Tel: Melinda Anderson 4980 0251 Email: melinda.anderson@portstephens.nsw.gov.au. A 4 week course follows at 1 night per week.

The NSW Environmental Defender's Office has various written guides e.g. Private Conservation, Caring for the Coast, Environmental Law for Aboriginal Communities and Mining Law. Go to www.edo.org.au/edonsw/

Tom Farrell Institute for the Environment, Newcastle University. Go to <http://www.newcastleinnovation.com.au/our-partners/tom-farrell-institute-environment>

2013 NSW Landcare Group statistics. Go to www.landcarensw.org.au/

Funding Opportunities

- Hunter-Central Rivers CMA Sponsorship Program - \$1,500 grants for community groups & networks, schools and Local Government. Application categories are:
Community education events & activities; support for community groups (Newcastle catchment); Marine debris education & capacity building (Hunter estuary or Great Lakes). Go to www.hcr.cma.nsw.gov.au/

Dates for diary:

HRLN General Meeting
February 9 at Morpeth at 10.00
a.m.- venue TBA
Tel: 0458 348 110

World Wetlands Day
February 2

Grant Writing Skills workshop
February 18 at Newcastle
Tel: CMA on 4930 1030

Clean Up Australia Day
March 3, Business Clean Up
Day 25 February & Schools
Clean Up Day March 1 Go to
cleanupaustraliaday.org.au

Sea Week March 3-9

Ground Water Awareness
Week March 10-16

2013 is the International Year
of Water Cooperation

World Forestry Day March 21

Total Field Days May 3,4,5 at
C B Alexander Agricultural
College Total Road, Total
from 9.00a.m.- 5.00p.m.

LANDCARE LANKA

In September Landcarers from around Australia gathered together in Sydney for the bi-annual National Landcare Conference. Over three days Landcare, government and other organizations shared their environmental experiences.

Speakers from Australia and overseas gave insight into a broad range of Landcare strategies used to address conservation and restoration of our land.

Small group workshops and presentations were given during the conference. One presenter, Kamal (Kamy) Melvani from Sri Lanka spoke on "Restoration of the riparian zone of Lake Richmond through Landcare".

Landcare in Sri Lanka officially started 3 years ago. Much of the work carried out by Kamy and her team across Sri Lanka in diverse locations has been a remarkable effort and mirrors what many groups are doing around the world.

From its beginnings in Australia countries in the Pacific, South East Asia, South America, Africa and Europe now have their own Landcare Groups and networks. Sri Lankan Landcare is showcasing great Landcare examples - people working in groups, prioritising problems and working on them and getting on with the job.

Lake Richmond Nature Park in central Sri Lanka is no exception. It is situated between two Tea Estates in the Lipton's Valley in Haputale and was formed in the 1800's to provide hydropower to a coffee factory. It now resources both agriculture and the local community.

Difficult terrain with problems of pollution because of introduced plants for agricultural production (tea and other human pollutants and deforestation) caused the need for serious effort to protect and enhance the Lake.

Farmers, school children, Landcare Lanka, the Forest Department and the Neo Synthesis Research Centre joined forces to rehabilitate and enhance the Lake and surrounds. It is succeeding!

Economic impacts, agricultural practices in riparian zones and community sustainability all impact on the future of the project.

One innovative idea for the future is to see Landcare branded tea sold in specialty shops overseas - like Australia!



Kamy Melvani with Landcare Tea

You can access the transcript of Kamy's presentation and other conference presenters and speakers via <http://www.daff.gov.au/landcareconference>.

Eight Field Trips were organised during the conference. The Landcare on the Hawkesbury trip took me north of the Sydney suburbs to Oyster farms along the Hawkesbury reaches at Mooney Mooney. In 2004 a Queensland parasite 'QX' devastated the industry, leaving 8,000 tonnes of dead stock and closing the door to 100 years of Sydney Rock Oyster production in the area. Local industry has since been successful in growing disease resistant Pacific Oysters.

Flooding can also affect the Oysters. Too much fresh water input can reduce salinity levels that they need to survive.

A ferry ride from Brooklyn to Patonga in time for lunch was next. We sat back and enjoyed magnificent views, passing seagrass meadows and oyster farm leases on the way. On arrival at Patonga Beach local Coastcare members gave us a history of the area and of their activities. There was time to walk in the Patonga bush or stroll along the foreshore before we had lunch and then boarded the ferry again for the return trip to Brooklyn.

Ruth Hardy

HRLN Chair: Ruth Hardy Tel: 0458 348 110 (HRLN Mobile)

HRLN email: hrln@bigpond.com

Shirtsleeves Editor: Ruth Hardy

Landcare NSW Inc: www.landcarensw.org.au

Publicity: Helen McClelland Tel: 4930 1030

Website: www.hunterlandcare.org.au

Shirtsleeves articles to email: hrln@bigpond.com

Landcare Australia: www.landcareonline.com.au