MOGGILL CREEK CATCHMENT GROUP

www.moggillcreek.org.au

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NEWSLETTER SPRING 2013

Phascogale (page 6)
Photo: Gordon Grigg

▲ Sophie (page 8)
Photo: Margaret Whyte

Labels (page 8) ►
Photo: Bryan Hacker

2 Insects (page 3) ►
Photos: Chris Heybroek

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Editorial

Perhaps we write here too often about the weather; but it is of such importance to us. I have lived here, with a strong interest in vegetation, for over 60 years and can not recall in all that time such favourable growing conditions as in the last few months. Not only has this allowed the ongoing growth of established vegetation but permitted much natural regeneration which is very chancy. Some rain allows germination of seeds but without continuing soil moisture until establishment, seedlings die. (Of course, weeds are quick to sieze the opportunity.) Nevertheless, we must be realistic. If our unusual weather is a local example of the extremes which have been occurring worldwide, there may be something unpleasant on its way for us. But we can't do anything about that; just remain optomistic.

It has been an encouraging period for our objectives. A high throughput at the nursery, combined with good growing conditions for planting, must mean a significant improvement in vegetation throughout the catchment. Meanwhile we have at last got our vegetative propagation facility up and running, which will mean a valuable increase in the number of species we can provide. Then there is the soaring membership. It doesn't seem long since we were happy for it to reach 300. Now it is 500. Activities at the Cottage and presence at functions elsewhere continue to be successful. All these things improve public awareness of our presence and what we do.

Moggill Creek Catchment Group is a volunteer action group aiming to conserve and improve the natural environment of its catchment on both private and public land.

www. moggillcreek.org.au

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Dedicated to a better Brisbane

MEMBERSHIP OF MCCG IS OVER 500

500 members for MCCG in 2013 is wonderful, but, come November, memberships for 2014 become due. Except for people who have recently joined, every member is due to pay their $15 renewal for the following year after the AGM.

Belonging to a volunteer group aiming to conserve and restore the natural environment on private and public land may bring its own rewards, but many members appreciate the special advantages of membership we offer. These include:

- This quarterly Newsletter
- Free locally native plants from our volunteer Nursery at the end of Gold Creek Road
- Interesting talks, topics and information sharing at the Cottage and public meetings

We hope that you will enjoy membership in 2014.

Dale Borgelt

Chairman`s Report August 2013

As I write this in early August, I have been waiting for Winter to arrive but I think I wait in vain. After a brief cold spell in mid June that heralded a promise of colder weather to come, the local wildlife have been acting as if Spring were here. Our birds are busily courting and even nesting and plants have continued to flower. The usual Winter break from mowing was largely illusory. Late frosts could of course spoil the party, but more likely is a drying of the surface layers of the soil as we experience warmer temperatures than is usual for this time of the year.

The Brisbane City Council (BCC) has rolled out its new Community Conservation Assistance program rapidly on the heels of the recent CCIA program that I highlighted in my last report. Some of the works from the latter are still to be completed because of the late start to the program, but many of the successful applicants from that round where work has finished are happy with the outcome. I understand that the BCC will be surveying recipients in late 2013 to gauge their experience of the program. The real positive from this program is that it supports restorative work on private land under the Wildlife Conservation Partnership program (LFW).

Many locals enjoyed a great Kid`s Day at the Cottage, an annual MCCG event held the last Sunday in May. Dale Borgelt and her team put considerable effort into organizing an entertaining day for kids with a variety of displays and hands-on activities. A popular highlight was Martin Fingland's Geckoes Wildlife Show. We see this day as one way of giving back to the community with a particular focus on educating the younger generation in whose hands we will eventually leave responsibility for managing the environment. Well done Dale!

Motivated volunteers are what make the MCCG tick. I often look at some of the 'lifers' in our group and am humbled by their dedication to their work on restoring the local natural environment over many years. That is, they have a certain stickability that is little diminished by obstacles including advancing age, and they have a long term view in a short term world. A future MCCG will only thrive on an influx of new volunteers to assume the various roles within the group. Importantly, fresh ideas will assist MCCG to be a more effective organisation. If you have the time, we would welcome your involvement.

A final word on one of our very important projects. Adrian Webb, an energetic member of our Management Committee, manages the Creek Health Monitoring project, a bi-annual assessment of the state of health of our local creeks. With the help of up to 30 volunteers, detailed measurements of water quality, vertebrate and invertebrate populations, and streambank health are taken at 12 specific sites around the catchment. The project has been operating for a few years now and we are starting to build up a picture of creek health so that we are better informed about where we should target our actions in the future. See our website for more details (www.moggillcreek.org). There are a couple of messages in this. First, creek health is a good indication of catchment health. Second, we can only do this work with the help of volunteers who are prepared to give up 2 weekend days each year. Find out more about this project and other topics at the Cottage on Saturday September 14th at 9.30am. See you there!

Warren Hoey

Our Cottage Library is still growing

MCCG has recently been donated a copy of the 1929 book *Australian Rain Forest Trees*, by W. D. Francis. For this we must thank Garth Nikles, and the unfortunate fact that the economising of the Government with consequent changes to libraries has necessitated the release of many books, documents, etc. for space saving. This book is a significant reference resource for us, as it includes photographs of mature specimens of many of our now-vanishing rainforest trees.

In fact, our library is beginning to develop into a significant resource with collections of botanical and environmental books bequeathed by former members, an increasing collection of titles donated or loaned by local environmentalists, as well as our acquisition of publications relevant to the biodiversity of our area. On its shelves, for example, you can find Bailey's *Flora of Queensland* (1899-1904); Elliot & Jones *Encyclopaedia of Australian Plants* (1989-2002); Harden, McDonald &Williams *Rainforest Trees and Shrubs* (2006); *Mangroves to Mountains* (2008); and 3rd edition *Fragments of Green* (2011). There are books on butterflies, birds, dragonflies, frogs, snails .....

Our most recent acquisition is *History of Mount Coot-tha* (2013) - Janet Spillman's just-published fascinating account of the history of this iconic landmark. (Janet will be Guest Speaker for our AGM in November.)

Based at The Cottage, our Environment Centre at the end of Gold Creek Road, the library is open every Thursday from 9.30am – 12.30pm.

So, if you have environmental interests, come and have a look!

Dale Borgelt

Insect photos on p1

That butterfly magnet Don Sands spotted this lovely Macleay's Swallowtail within ten minutes of arriving at Heybroek's property. He also pointed out this incredible tiny *mantisid*, a very primitive insect. We are so lucky to have in our area such a wealth of biodiversity and people with a wealth of knowledge about it.

History of Mt Coot-tha, by Janet Spillman – a review

Those of us who are fortunate enough to live on the north side of Brisbane all have a deep affection for Mt Coot-tha. When returning from a visit interstate or overseas, by air or by road, the sight of Mt Coot-tha tells us we are almost home. Mt Coot-tha is not a large mountain, as mountains go, but it is ours. Now Janet Spillman, Photo p. 5, who lives in Chapel Hill, has written a most informative history of this iconic mountain.

This is a scholarly and carefully researched book, as attested by its eleven pages of references and bibliography, but it is very readable and amply illustrated with reproductions of sketches, paintings and photographs from yesteryear. The book starts with a brief account of the early history of Brisbane when it was a convict settlement. What was then known as the Glenmorrison Range, which included Mt Coot-tha, was richly forested in 1828. The need for surveying in 1839 led to clearing of hilltops but a 'gigantic' tree was left for use as a survey point on Mt Coot-tha, which became known as One Tree Hill. This became a favourite picnic spot as the City grew, as demonstrated by a number of charming photographs of visitor groups over the ensuing decades. By 1880 the Queensland Government had declared Mt Coot-tha a recreation reserve, when it was named Mt Coot-tha, Kuta meaning 'place of wild honey' in the Turrbal language

The book clearly shows the changes that have given rise to the Mt Coot-tha we know. Early reports give a picture of a rich flora but also of gold-mining, illegal timber-getting and grazing, and plundering the area for ferns, orchids and other plant species. The scenic East Ithaca Creek, now Slaughter Falls (p.36-7), was dammed (p44) and became a popular picnic spot. During World War 2 this area became a US Military base and after the war the picnic areas were 'bulldozed flat' (p.70). Fortunately, other proposed 'improvements', such as a multi-storey building trade display at the kiosk proposed in 1971 (p.98) and a multi-purpose Skypoint Tower proposed in 1988, did not go ahead.

I was interested to learn of an earlier Coronation Drive than the one we know, a circular drive round the reserve, shown on a map published in 1914. Would this have been celebrating the coronation of King George V in 1911? In 1927 the Sunday Mail motoring correspondent starts his article with the statement *One Tree Hill is recognised as a severe test for any car, and it is somewhat of an achievement for one to go right to the summit in top gear.* The same year a letter to The Queenslander expressed concern that *One Tree Hill is being turned into a terror that whizzeth at noonday and threateneth by night.* For motorists, how much tamer our Mountain seems now!

Copies of this 'must have' book may be purchased from the publisher, Boolarong Press, from The Book Bank, Toowong, or from the State Library Bookshop, price $29.95.

Bryan Hacker

Feral Deer in Brisbane

In 2009, feral deer were declared under the *Queensland Land Protection (Pest and Stock Route Management) Act, 2002* as pest animals. This means that Rusa, Fallow and Red deer which occur in Brisbane are declared pest animals and require control by landholders on their properties.

Rusa are declared as **Class 2** pest animals, and landholders must take reasonable steps to control them, while Red and Fallow deer are **Class 3** pest animals which means that landholders, that own or are adjacent to environmentally significant areas, are required to control deer on their land.

Feral deer can cause significant damage to the native bushland and agricultural properties by competing for pastures, browsing orchards and native trees, trampling and compacting the soil, ring-barking trees, tree damage from antler rubbing, dispersing weeds, concentration of nutrients, soil erosion and subsequent degradation of water quality in waterways. Other impacts include: colliding with motor vehicles, damaging residential gardens and fences, attracting illegal hunting, increasing the risk of spreading diseases.

When seeking advice on the 'best practice' control methods for feral deer on your property, it is recommended that you contact a Council Pest Animal Management Officer. These Officers will know the legal requirements for the different methods of control. People who wish to control deer must have appropriate skills, licences and permits and adhere to local Police laws and animal welfare laws and standards.

Council's invasive species management team has an ongoing deer management program. In the Brisbane City Council area, property owners are working together with Council to control Rusa, Fallow and Red deer numbers. Council assigns priority to properties in dealing with deer problems that can make the most significant contribution in protecting and restoring native wildlife habitats and ecosystems. Property owners are also being encouraged to reduce areas of lantana which deer use as shelter during daylight hours. Harbour management when coupled with Council's ongoing deer control programs will have a real impact on deer numbers.

Report all deer sightings to Brisbane City Council by phoning the Call Centre on 3403 8888

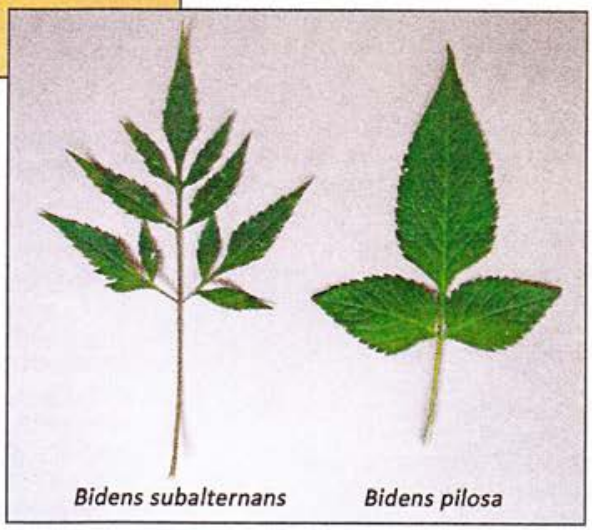
Bill Manners
(Principal Officer Natural Environment BCC)

◀ *B. subalternans* flower

▼ *B. subalternans* fruit

Cobbler's Pegs (page 8)
Photos: Bryan Hacker

B. subalternans(L), *B. polosa* (R)
▼



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Janet Spillman (page 8)
Photo: Janet Spillman

◀ Tree guard (page 7)
Photo: Chris Heybroek

Memorial fig (page 6) ▶
Photo: Sue Turner

Considerations in planning ecological restoration

Whilst some catchment members may have a clear idea on how they want to manage their land and can visualise an ideal outcome, many of us can not.

Although a great many factors affect the choices we make in such management, it should be said that merely planting two of three local native plants in your garden is making a contribution to our local ecosystem. My focus here however is on those of us who share the goal of returning our land to what we believe was originally here.

Immediately we find ourselves facing two major problems. We seriously underestimate how long this is going to take: much longer than our own life expectancies. Secondly, most and often all traces of the original ecosystem are gone. As it turns out these two things are probably the least of our problems because on closer inspection weeds are taking over and much of our top soil is missing along with the many side effects of the previous 150 years of land management, extremes of temperature, wind and infiltration of water into the soil to name a few.

By now we should be reconsidering our goal. When asked what we actually do on our land most of us are quick to say that we plant trees and kill weeds. Obviously these two tasks are a significant part of our activities, but these lend themselves more to a successful farm forestry operation. I prefer to look at what I do in restoring an ecosystem, which requires me to consider a far greater range of factors remembering, as mentioned earlier, that much has changed in 150 years. Fortunately for us, we now recognize that change is not new in nature and is constantly occurring albeit a little slower than we are hoping to achieve. The ecosystem that used to be on your land was a product of a process of change over a very long period of time.

To give an extreme example, a volcanic eruption may destroy all traces of an ecosystem, replacing it with solidified lava (rock). This is then subjected to weathering and the action of a broad range of plants, the first of which may have been mosses and lichens, to finally support some of our most diverse rain forests.

This now gives me some idea on how I'm going to achieve my ecosystem restoration in that I should assist or facilitate natural processes. Some of you might notice that unlike our traditional, ignorant and often arrogant land management practices, we have formed a partnership with nature.

Before any discussion on how an individual might approach the task it is necessary to emphasize that every site is unique in many ways, for example, in the type of ecosystem it originally supported, the state of degradation, type and percentage of weed infestation, proximity to a source of local seeds and very importantly, how much time one has available to give.

The forgoing is concerned with awareness of factors which should be recognized in planning restoration work. Is it intended to discuss in a later article, strategies which might be implemented.

Andrew Wilson

Pouched Weasels in Brookfield

On Anzac Day this year our son, arriving with his kids on a morning visit, picked up a dead Brush – tailed Phascogale (literally, " weasel with a pouch")on our driveway, also known as *Phascogale tapoata* (photo p1). Our driveway winds through bushland, so the habitat is suitable, but it is the first we have seen in our 25 years here so we were quite excited. It was freshly dead but unmarked. It was a male. Like the antechinuses (the so called marsupial mice), male phascogales live a bit less than one year; they die at the end of the breeding season. Is this why he had died? No, because the breed season is May – July; he would have been anticipating it. We don't know why he died. I asked around; who else had seen one? One of my neighbours had seen a live one on his place not long before. Another Gold Creek regular had seen one cross the road a few days after our specimen turned up. Steve van Dyck said they were not all that uncommon in the Brookfield area, but he was still very pleased to have it for the Queensland Museum collection. Why was this our first? No matter how tempting it might be for us to claim it as a benefit from our bush regeneration activities, they are rarely seen anyway. Most reports seem to be from drownings in a water barrel or similar misadventure. The most likely explanation is just that they are nocturnal and live mostly in the canopy of tall forest where they feed on insects, spiders and nectar. They are also difficult to pick up with a spotlight. Active agile predators, they range widely (home – ranges of 5 – 40 hectares, depending on habitat quality). They use tree hollows and build nests, often made by tearing off strips of bark. The young are carried in the pouch and, later, suckled in the nest. Brush-tailed Phascogales occur in suitable forest habitats from Cape York to Kangaroo Island and are not endangered. There are two other species, one in the Top End of the NT, the other now limited to south – west WA after a much wider fossil distribution and are now considered endangered.

Gordon Grigg

Further reading: van Dyck & Strahan (2008) *The Mammals of Australia*, Third Edition.

Memorial Fig

The photo on p5 shows a Moreton Bay fig being planted as a memorial, at the request of a mother whose son had recently lost his life.

Another revegetator's experiencce

Probably one of the most delightful aspects of properties in the Moggill Creek Catchment is their individuality. For bush regeneration, each property presents its own unique set of problems depending on the differential between its current and desired state of habitat, its size, topography and soil type, and the time available for the regeneration process. For 35 years now, we have been working, as time permitted, to regenerate the bush habitat on our property, and would like to share the knowledge we have gained in the hope that it may be applicable to others.

Our property is nearly 17 hectares ranging from 75 to 220 metres altitude. The many hillsides, usually steep, face different directions and have a variety of soil types including metamorphosed sediments (chert) and metavolcanics. The north facing slopes were farmed until the 1960's, but about 12 hectares have never been totally cleared and we have concentrated our regeneration energies on these areas. On the metavolcanics, the remnant vegetation is mainly Vine Forest, ranging from Auraucarian Microphyll (AMVF) higher up to Littoral Microphyll in the lower areas. The chert slopes are predominately tall eucalypts with an understorey of AMVF species tending to Complex Auraucarian Notophyll Vine Forest in the gullies.

Because time is always scarce, the task large and the weeds many, we have learnt to focus on our long term goal – to encourage the bush to be able to look after itself. Tracks are made and maintained to give access through and to areas of interest. Weeding is undertaken with a purpose and not as an achievement in its own right. If the ground is disturbed, cobbler's pegs flourish. The wildlife does not discriminate against weeds. As a priority, canopies are cleared of weed vines. Areas with 'holes' in the natural vegetation are weeded only in preparation for infill planting. Replant species, usually for canopy cover, are carefully selected to suit the various areas, differing with aspect, soil type and the existing vegetation. Larger areas with extensive degradation are tackled as a process – just enough weeds are removed, while preserving areas of habitat for wildlife, before trees are planted. Because the young trees must be cared for, they must be visited regularly and with each successive visit, any necessary weed control can be carried out. Such areas may take three or more years of repetitive attention before the new vegetation begins to predominate.

Tree planting on steep rocky slopes is hard work and is not always successful. Many years ago, trees were watered, fertilised with blood and bone and deep mulched. Bandicoots were attracted to the blood and bone, the scrub turkeys attacked the mulch and if a new tree is green when all around is not, the insects and wallabies eat it up. Our current method has evolved to suit our conditions. If time is available for regular watering, trees are planted at any time of the year. At planting, each tree receives one bucket of water with Charlie Carp and has a tree guard installed. Subsequently, the aim is to encourage deep root growth. Each tree receives one bucket of water with Charlie Carp per month, with some being applied as a foliar application. The oily and smelly nature of this application seems to discourage most wildlife. No external material is introduced for deep mulching, and a shallow mulching consisting of scrapings of adjacent bush litter or rocks avoids any tendency for shallow surface root growth. The solid tree guards available commercially have not been successful and the stakes are too difficult in rocky ground. The guard we have devised is illustrated on p.XXX The materials can be recycled over many plantings, the star pickets can be hammered in securely, vine weeds tend to grow up the wire and leave the tree inside clear, the wire can be lifted a little for weeding and the progress and needs of a new tree can be assessed on a surveillance walk past.

There are now areas that have been rehabilitated, where only occasional weed eradication is necessary, the canopy thrives and self sown bush seedlings are frequently found.

Bryan Hacker

Bringing Back the Figs

It surely is not necessary to draw attention, once again, to the great ecological importance of the figs, which at the time of European arrival would have been abundant in rainforests and riparian zones. But whereas most trees of the forest were useful for building, for furniture making, or for firewood, the figs were not; and so were not simply left but cut out.

We became particularly aware of this a couple of years ago so gave some emphasis to the propagation and dispersal of the eight species of *Ficus* native to our catchment. I went back through our records for the last year (July 2012 – June 2013) to see what has happened. The totals across species for each year are of no interest here; only totals for each species for the whole year. These are: *macrophylla* 49, *rubiginosa* 40, *virens* 42, *superba* 23, *watkinsiana* 2, *coronata* 174, *opposita* 44, *fraseri* 63.

The total for all species for the year is 437 and is dominated by the 174 for *coronata*. That does not really follow from the ecological need but is largely for repair and protection of creek banks. The remaining 263 is rather disappointing in relation to the need. Is there a persisting cultural aversion to figs? We say and do a lot about the vines whose destruction has displaced the Richmond Birdwing Butterfly, but no tears seem to be shed for the little fig parrot which is dependent on a year-round supply of figs, which means a good number of fig species.

Graeme Wilson

Cobbler's Pegs

Everybody recognises cobbler's pegs – or do they? Looking at the photograph of fruit ('seeds') on page 5, most would say they were cobbler's pegs, but they are not. Checking in the Flora of South-eastern Queensland it seemed that it is the related species *Bidens bipinnata*, but a specimen taken in to the Queensland Herbarium was tentatively identified as *Bidens subalternans*, common name - greater beggar's ticks. Both cobbler's pegs and this latter species, *B. subalternans*, occur on our Gap Creek Road property (unfortunately!) but cobbler's pegs (*B. pilosa*) are by far the more abundant. The most obvious difference between the species is the leaves, bipinnate in *B. subalternans*, once pinnate in *B. pilosa* (p.5). Flowers of *B. subalternans* are quite similar to those of cobbler's pegs, but with yellow outer petals (p.5)

In *The Flora of South-eastern Queensland* (with updates published 2002) the distribution of *Bidens pilosa* is described as 'cosmopolitan' whereas that of *B. bipinnata* is described as 'rare in the region', and *B. subalternans* is not mentioned, presumably because it was not then understood to be naturalized in this state. The Plantnet-FloraOnline website shows *B. subalternans* to be widely naturalized in NSW and also occurring in Queensland. Enquiries from the Queensland Herbarium reveal that the genus is currently being investigated taxonomically at a molecular level in the USA.

An obvious question is – why, when they are so similar – are cobbler's pegs so much more ubiquitous as weeds in Queensland than *B. subalternans*? Both species are very quick-growing annuals, producing rapid above ground growth from a small root system. Both favour disturbed ground and grow throughout the year, and may achieve a height of almost 2m. Both seem to be adapted to semi-shade. The answer could be that, when conditions are tough, cobbler's pegs can flower and seed within a few weeks of germinating, producing 10-20 fruit from a plant just 10cm tall; when conditions are favourable, though, plants stay vegetative, flowering at a height of perhaps 1.6m and producing many hundreds of fruit. In my experience, *B. subalternans* does not have the capacity to fruit when it is tiny and seems not to flower in winter. A warning, though, is that *B. subalternans* is considered a major weed of crops in Brazil. I would be interested in anybody else's observations.

As something of a post-script, there is also a native cobbler's peg, *Glassogyne bidens*. It is a delicate little plant with a perennial rootstock and with lobed leaves, narrow and with narrow lobes. The genus *Glassogyne* is distinguished by having leaves largely basal, in a tuft or rosette, whereas in *Bidens* they are opposite and distributed along the stem. The native cobbler's peg is uncommon and not weedy at all.

Bryan Hacker

Dates to hear Janet Spillman on the History of Mt Coot-tha

This has been a labour of love for Janet, as she is a keen bush care volunteer on the southern slopes of Mt Coot-tha, where she can be found weeding and re-vegetating the mountain with like-minded cronies. She fills her days painting, camping, walking and bird watching, but expects to disappear back into libraries and archives next year when she starts her doctorate on Queensland environmental history.

Mt Coot-tha's history has a cast of politicians, loggers, artists, authors and scientists, as well as citizens who go there to walk, picnic, and admire the view. Mt Coot-tha's importance as a recreation reserve for the City of Brisbane indicates our human need for a relationship with the natural world. This will become increasingly important in a region of rapidly growing population and increased settlement density.

There are two great chances for you to hear Janet herself speak:

October 17	**Third Thursday Talk at the Cottage**	**Heroes and Villains of Mount Coot-tha**
November 25	**AGM Monday 7.30pm Brookfield Hall**	**Brisbane's First Forest Park**

Dale Borgelt

Easy as A-B-C!

Out and About By Cubberla Creek Sophie (photo p1) is not only demonstrating a favourite place in her catchment but also providing her proud Grandmother with a possible picture to enter in the MCCG photography competition. Just to remind all MCCG members of the information on our photography competition in our last newsletter. Submission date for the 2013 entries is Saturday October 19th (10am-2pm, Trustees Room, Brookfield Showgrounds). More information, samples of last year's winning pictures, and entry forms all on our website http://www.moggillcreek.org/. And don't forget to encourage your children's school to enter the special competition for local schools. Time to get snapping--its as easy as A-B-C!

Dale Borgelt

Cottage garden plants now beautifully labelled

If you have recently been up to our Environment Centre, affectionately known as "The Cottage", you will have seen most species in the garden are now labelled with durable metal labels (photo on p. 1). Thanks to donations we have had in the past we were able to make this investment, which increases the value of the garden area as an educational resource.

Bryan Hacker