

MOGGILL CREEK CATCHMENT GROUP

P.O. Box 657, Kenmore 4069



MOGGILL NEWS

November 2002

Newsletter of the Moggill Creek Catchment group

Chairman's Report - 2002

Over the past year the Catchment Group has had a strong emphasis on supporting private landholders in our catchment, whilst still continuing work on public land, the latter supported by Habitat Brisbane.

In our successful bid for Natural Heritage funding in 2002 we indicated that we would build up the numbers of landholders we support from the 85 on our books late in 2001 to 150 by the end of this year. We organised a letterbox drop throughout the acreage sections of the Catchment in January, which was successful in raising interest. We currently have 133 landholders listed, so we are quite close to our target – a target which 'they' thought it would be impossible for us to achieve! In the last twelve months we have provided advice and/or plants to 85 landholders in the Catchment and distributed nearly 7,000 plants in 169 species. In addition, 318 bales of mulch have been distributed.

On public land we have eight bushcare groups operating, most of which hold monthly working bees. One has only to walk through Huntingdale Park, or along Gap Creek or McKay Brook, or drive along Gold Creek or Upper Brookfield Roads, to see the tremendous amount that has been achieved by these groups. Over the past year alone, some 4,000 plants have been planted by our Bushcare Groups.

Priority Areas

Five priority areas were defined in November 2001:

Communication/Publicity – thanks to the efforts of Jack Talty, Judy Gower, Margaret Hastie and others, this has been a real success story. Four informative newsletters were produced during the year, each with a range of interesting articles. The Photography Competition was even more successful than in previous years, with more entries. Our displays at the Brookfield Show and the Country Market (in October) attracted considerable interest. Judy organised an interview with the producers of the television show 'Totally Wild', where we discussed the importance of keeping our creeks free of pollution. And the continuous flow of newspaper articles from Jack Talty's pen kept the population at large aware of what we are doing.

Plant Propagation – this year 930 plants have been donated by residents, and 2,940 plants grown in our nursery from seedstock brought in by members. Graeme Wilson is

coordinating plant propagation by Catchment Group members. This activity is going to be increasingly important in the future.

Weeds – Adrian Webb and Vic Blake prepared a Weed Management Plan in March and stressed the need for a weed survey. Robyn Frost and others organised a 'Weed Exchange' in October, with support from Habitat Brisbane. I have prepared several weeds factsheets and am negotiating with BCC for support towards their publication and distribution through rural parts of the Catchment. The Weeds group has successfully targeted a major outbreak of the environmental weed catsclaw on Tony Pettitt's property (Savages Rd).

Water Quality – Rob Waller and Adrian Webb submitted a Report on Water Quality in the Moggill Creek Catchment in February. They concluded that 'The Committee awaits further detailed discussions with the EPA and BCC before a decision is made about continuing the water quality monitoring program as initially designed and operated'. In consequence, no further action has been taken.

Vegetation Mapping and Wildlife Corridors – this is an area which has been discussed, particularly in relation to Wonga Creek, but has not been taken any further.

Cooperative project between Catchments

A proposal has been submitted to Natural Heritage Fund (Envirofund) to target major weed outbreaks between Brisbane and the d'Aguilar Range. The proposal involves Pullen Pullen Creeks Catchment Group, Save our Waterways Now (Enoggera Creek), Cubberla and Witton Catchments Network and The Hut Environment and Community Association (THECA). We believe that cooperation between groups will be to our advantage with the forthcoming regionalisation of funding for community-based environmental projects.

MCCG Website

We now have our own website, thanks to the efforts of Michelle St Baker, Adrian Webb and David Edwards. We are grateful to Brisbane City Council for training and making it possible for us to keep the community informed under 'Ourbristane.com'. David is keeping our site up to date, and we anticipate that it will be increasingly used.

Continued on next page

Chairman's Report - 2002 (continued)

Our NHT Co-ordinator

Michael Reif, our previous coordinator, resigned in February and it was not possible to appoint a new person to the position until early April. Over this period I filled the role of coordinator. Liz Gould joined us in April, working three days each week. She quickly became acquainted with the district, made herself known to the residents, and provided help where it was needed. It was largely through her efforts that we have achieved so much with private landholders this year. Thank you, Liz, for a job well done!

The future

People have been asking – 'What happens when Liz goes?' We anticipate that we will be able to continue to support landholders, albeit on a somewhat reduced scale. Brisbane Forest Park will continue to allow us to use the Nursery for propagating plants and has kindly offered to provide some support. We have a group of volunteer members who are always ready to help pricking out seedlings, and we can continue to offer informed advice on appropriate species and techniques for revegetation as well as providing a range of understorey and tree seedlings. Our Bushcare Groups, supported by Habitat Brisbane, should be in a position to continue their efforts. What you, as a member, can do to help is:

- collect seed of local species and send to Graeme Wilson (3374 1218) or me (3374 1468) – remember to request

permission to collect if not on your own land. Don't worry if you can not put a name to the species – just include a few leaves and we will identify it;

- give us permission to collect on your land if you have native trees, especially dry rainforest species;
- offer to help one of the above groups;
- we are also looking for a small group to develop opportunities for fund-raising.

So, be sure to keep up your membership – the MCCG can only provide help if we are in contact with you.

And thanks to this year's Committee

Finally, I would like to thank the Committee that has been so supportive over the past year. I would particularly like to thank those who are stepping down

- Adrian Webb, Vice-Chairman, for keeping the ship on course while I was overseas and for his contributions in so many areas,
- Robyn Frost for her work as Secretary,
- Jack Talty, for his tirelessness in preparing newsletters and articles for the local press
- and Barbara Cox for keeping our books in order and making sure we do not spend money we have not got.

Bryan Hacker

Give Plants a Chance: A Practical Planting Guide

A lot of work goes in to producing plants, preparing sites, the actual planting operation and follow-up maintenance. It makes no sense to go through all that without giving the plant the essential good start in what is, in many situations, exposure to hard conditions. There is a great deal more to planting than seeing the roots covered with some soil, followed by a splash of water. At the end of a successful job it is necessary that:

- The roots are in effective contact with the site soil.
- The potting mix level is below the surrounding soil (not litter) surface, and on slopes, that is at the lower side.
- The plant is in a sufficiently wide and deep depression to retain water, rather than having it run off.

To achieve that, the following procedure has been found satisfactory:

1. Remove surface litter, but retain.
2. If the soil is hard or contains stones, use a pick (not a grubber, which does not usually dig deep enough and is inclined to throw soil out) for a preliminary break-up of the soil. Then with a shovel or spade make vertical cuts for a final loosening of soil. This must result in prepared soil not only wider than but also much deeper than the pot size. In doing that, do not disperse soil widely from the site because it must all be recoverable.
3. Remove enough soil for ease of the next steps. It can be placed beside the hole, but we find it convenient to put it in a container.
4. Remove plant from the pot. If there is any packing of roots at the base, tease them out slightly. Ensure there is enough depth in the hole to allow the root ball to be lowered (not squashed) sufficiently so that the top of its soil is below what will be its final level.
5. Replace a little of the soil, lift the root-ball to its final height and work the replaced soil in below it.
6. Replace most of the remaining soil and work it down vertically (don't just push the whole mass) with the fingers to establish good contact between the roots and the site soil. (This can be hard on the finger-nails. You may find it better to use a length -about 30cm.- of timber such as a piece of broom handle, of which about one third of its length is tapered to a blunt point.)
7. Add remaining soil, form the saucer for water-holding, and press down firmly. This is important.
8. Water heavily, i.e. with a stream, not a sprinkler. This operation is not, at this point, to water the plant but to complete the continuity between the root-ball and the site soil. It does, of course, also provide necessary water for the plant.
9. Replace litter, and mulch if practicable.

There may be various necessary follow-up activities, but there is one which is essential yet not well understood. Roots can get water only from soil in fairly immediate contact. Initially, until they have grown out, this goes little beyond the original root-ball. Watering must therefore be as frequent as it was when still in the pot; in fact, perhaps more so if the plant is now in a more exposed situation. Beyond that, infrequent heavy watering is better than frequent shallow application, the latter encouraging root growth near the soil surface which dries out rapidly. Development of roots at depth is important, especially if very dry periods eventuate.

Graeme Wilson

The White Cedar Tree

This attractive native tree was in flower in October, with clusters of small, lavender-coloured flowers, which are delicately scented. Its botanical name is *Melia azedarach*. White cedar is a rainforest tree growing to about 8 m tall, with spreading branches. It also occurs in eucalypt woodlands, especially where there has been some disturbance, but in these situations its growth tends to be stunted. It is one of the few deciduous trees which are native to our area, producing clusters of soft, bipinnate leaves at much the same time as it flowers. The fruit are yellow and more or less spherical, about 1 cm in diameter, and are poisonous. The timber is highly figured and has been used as a cabinet wood and the bark is said to have been used by aborigines as a fish poison.

White cedar is very quick-growing, and can easily achieve a height of 3 m in 2-3 years. It has been planted extensively as an ornamental, but frequently all the foliage is eaten within a few weeks of its first appearance, leaving the tree bare for several months. At times one sees literally hundreds of hairy caterpillars climbing the trunks of white cedars. Don Sands, who has recently moved to our Catchment, told me some interesting facts about the caterpillar which causes the damage, and why white cedars are predated upon so much more when in gardens or open woodlands than in forests. The caterpillar is the larval form of the moth *Leptocineria reducta*, a drab brown moth about 3 cm wingspan and with a distinctive tuft of pale scales on its abdomen. The caterpillars, which have stinging hairs, hide on the ground and will travel large distances to find white cedar trees. They pupate under the bark of eucalypts and the pupae also have stinging hairs. However, the moth does not like dark, forested situations, which is one reason why white cedar trees in rainforests are not seriously affected. Another reason is that the moth is predated upon by various native cuckoos, a group which has become much reduced since white settlement. In a garden situation, white cedar can be protected from the caterpillars by tying a sheet of polythene around the trunk. The sheet need only be about 30 cm wide.

The golden rain tree, *Koelreuteria elegans*, is easily mistaken for white cedar in vegetative growth, but flowers are yellow and showy, followed by pink disk-shaped fruit. Golden rain tree is a moderately serious weed along watercourses in our catchment.

Bryan Hacker



Weeds Forum: Understanding the Threat

At least 180 people attended 'Weed Forum: Identifying Issues and Seeking Solutions in Bush Regeneration', a seminar conducted in September by THECA Inc and the Brisbane Botanic Gardens, Mt Coot-tha, in the Auditorium at Mt Coot-tha. Papers came from university and CSIRO scientists, local and state government consultants and the nursery industry.

For example, Tom Anderson from Alan Fletcher Station identified weeds (a plant in the wrong place) as presenting a global problem that poses threats to nature conservation, public health and safety and national economies everywhere. Alan Barton and Doreen Hull from BCC reminded the audience that weeds are second only to vegetation clearing as a threat to biodiversity and Brisbane is no different to many other high biodiversity areas in being threatened. George Batianoff and Don Butler from Queensland Herbarium reported that of 200 invasive exotic plant species found in SE Queensland, the ten ranked highest in impact were *Lantana*, *Cat's claw creeper*, *Chinese elm*, *Madeira vine*, *Camphor laurel*, *Green panic/guinea grass*, *Broadleaf pepper tree*, *Asparagus ground fern*, *Cabomba*, *Ornamental asparagus*. It is worth mentioning here that a paper from University of Queensland and Greening Australia found that 30% of all noxious weeds and 7 out of 18 of our worst environmental weeds are garden escapees.

Perhaps it was not surprising then that Don Scotts, Executive Officer of the Queensland Nursery and Garden Industry, defended his own industry. He suggested there needed to be a more coordinated approach to controlling weeds. However this happens, it is clear that much needs to be done to tackle an issue that costs Australia \$5 billion each year.

Some solutions mentioned at the Forum were biological control, development of Local Government Area Pest Management Plans and the National Strategy for Weed Management. Importantly, the obvious message from the forum was that in SE Queensland we face a significant and costly weed problem, the extent of which is not fully appreciated by the general public.

Robyn Frost

Platypus Sighted

David Edwards reported in October seeing a platypus in McKay Brook. Twice!

Salvinia: Turning Water into Lawn

An article in the last newsletter touched on the subject of Salvinia (*Salvinia molesta*) – a weed originating from Brazil that is found in some of the creeks in our catchment. Salvinia is a free-floating aquatic fern, with small spongy, green leaves. In some areas, the weed is so dense that it forms a mat across the water, looking almost like a lush green lawn! This is a safety risk for animals and children in particular, who may mistake it for solid ground and try to walk across. They are then at risk from falling through and drowning as the weed closes over above them.

Other problems caused by Salvinia are...

- Up to four times the loss of water (compared to normal summer evaporation) from creeks and waterbodies due to the weed's high transpiration rates.
- Reduced light penetration into water causing lower photosynthesis and possible death of other plant life. Decomposing plant material reduces water quality and the amount of oxygen in water, if severe this will cause the death of aquatic animals.
- Loss of food sources for native wildfowl and semi-aquatic mammals.
- Hindering stock access to water
- Restricted water flow to irrigation equipment, thus increasing pumping times and costs.
- Physical barriers to territorial movements and breeding activities.
- Damage to structures such as fences in flood conditions due to a build up of weed and other floating debris. The combined weight can eventually cause the structure to collapse.

What can be done?

Salvinia can be brought under control using a number of methods. Each has advantages and disadvantages and using a combination is often most effective.

1. *Herbicide*: will completely destroy all Salvinia it is sprayed on, however, will also kill native water plants. Pollution from rotting weed can result from spraying large infestations.
2. *Physical removal either by hand or with machinery*: removes Salvinia with little effect on water quality and other environmental values, however it is extremely time-consuming and virtually impossible to remove all the weed, particularly in large infestations. Steep banks and dense vegetation may limit access to the water.
3. *Biological control*: the Salvinia weevil (*Cyrtobagous salvinia*) stops plant growth through adults and larvae destroying leaf buds. The weevils rarely remove all of the weeds, however, though under suitable conditions they can survive in low numbers and prevent future infestation.

What is being done?

The Moggill Creek Catchment Group has identified a number of sites where Salvinia is a major problem. We found that Moggill Creek is worst affected but the lower sections of Wonga Creek and Gold Creek are also infested. The lack of water in most of our creeks has limited the spread of Salvinia, restricting it to permanent pools. This has also meant that there is little opportunity for weevils surviving from previous releases to move between Salvinia patches.

MCCG has released weevils at a number of locations in our catchment through Brisbane City Council's Salvinia "exchange" program. For each bag of healthy Salvinia, Council can provide a bag of Salvinia infested with the weevil.

Release sites can be detected by the presence of brown patches of Salvinia. Over the summer months, these brown patches should rapidly increase in size as the weevils spread out into the uninfected weed. Eventually the mat of Salvinia will sink and decompose.

For further information on Salvinia and its control, contact the Department of Natural Resources and Mines for a fact sheet, also available from the web at www.nrm.qld.gov.au.

For information on MCCG's Salvinia control program, please contact Liz Gould on 3300 4855 or 0408 109 210 (Mon-Wed).

Liz Gould



BRAIN Calendar

The Brisbane Rainforest Action and Information Network (BRAIN), has produced an attractive calendar for 2003 based on 'Flowers of the Rainforest'. Sales will support the important volunteer work of BRAIN in studying and maintaining local rainforests. The calendar will be available for \$12.00 at the MCCG AGM from Bruce Noble or at the BFP headquarters, The Gap, or orders can be taken through Bryan Hacker, MCCG, PO Box 657, Kenmore 4069. Bruce Noble is a member of BRAIN and also Brad Wilson's replacement as BFP representative on the MCCG committee.

Thanks to Margaret Hastie for formatting this newsletter and John Gower for printing it.

Section Reports

As a way of sharing the particular problems and achievements of the various Moggill Creek Catchment subcatchment sections, section leaders have begun taking turns to report in more detail on their groups' work at monthly MCCG executive meetings. Conditions vary around the thirteen designated subcatchments but these differences are too often obscured by general reporting from section leaders that merely lists time spent, weeds cleared, plants planted. After all, the main thing is to get on with the job. But what is left out is not just the particular geography but the important role played by the generally small groups of consistent volunteers working regularly at those sites and the sense of just how they are changing them. What follows is part of Rob Waller's report on Section 2. His slight note of pessimism in being unable to attract more support for the consistent volunteers such as the Petroseshevsky family was given a lift by the turnout for the section's special post-frost planting day reported elsewhere in this issue by Section 2 volunteer, Judy Gower.

Section Two: From Kenmore High to the Brisbane River

Section two is basically the lower end of Moggill Creek, located between the Kenmore High School and the Brisbane River. We cover the section of creek from McKay Brook to the river.

With the exception of a handful of larger properties, which range from about 2 hectares to McTaggart's 40 (?) hectares, the bulk of the land use is comprised mainly of suburban Kenmore. The creek itself passes through open space which is parkland or floodplain and includes Rafting Ground Reserve. This lower portion is tidal from the Brisbane River up to about the footbridge joining the two sections of Rafting Ground Reserve.

Being at the lower end of the creek, section two accumulates all of the problems from the upper reaches. These include:

- Increased salinity from upper-stream land use (typical salinity is around 780ppm).
- Reduced water flow because of water being extracted from the creek upstream. Flow reduction has caused the loss of several deep waterholes along the creek and allowed river silt to accumulate up as far as the north side of Rafting Ground and now that section of creek is little more than a mud puddle.
- Raised effluent levels from upstream septic tanks and overflow from sewage lines during rain (household storm water flowing into sewage system).

Predominate weed infestations (in approx. order of magnitude) are: 1. Chinese Elm, 2. Glycine, 3. Madeira vine, 4. Castor Oil plant, 5. Lantana, 6. Wild Tobacco, 7. Mulberry, 8. Camphor Laurel. Generally speaking, we are fortunately free of many of the other weed problems which affect some sections, such as Mother of millions, Cats Claw, Elephant Grass, Privet, etc.

Despite being suburban we have a reasonable list of native species: Tawny Frogmouth, several Wren species, Whip Birds, Llewellyn Honeyeaters, Scrub Turkeys, the usual suburban bird species (Crows, Magpie etc), the usual parrots, galahs, cockatoos, Rainbow Bee-, Chestnut Teal Ducks, Waterfowl, Echidna, Platypus, Snake-necked Turtles, the usual Possums, Carpet Snakes, Tree Snakes, Eastern Brown Snakes, Yellow-faced Whip Snake, Golden Crown Snake.

A typical working bee consists of 6 adults and 4 children. They have been as large as 12 adults, and as small as 2. The strength comes from a single family, the Petroseshevsky family, who contribute anything up to 6 adults. Attempts to recruit members through letter-box drops have been spectacularly unsuccessful, a 2000 pamphlet drop netting exactly one new member, who has now moved, and direct phone or face-to-face has rarely netted more than one or two who never offer more than two working bees.

Since work began in 1998 we have cleared approx 400 metres of creek of the majority of weeds, although some maintenance work is sometimes required, and have planted approx 2000 tubestock, with an average survival rate of about 75%.

The worst losses have occurred on flood plain areas of creek bank where the soil is mostly poor quality gravel, or from poor timing with respect to rainfall, sun-scorch, or frosts. Best successes have been on the sloped banks where soil quality is better.

Our goals are basically the same as other sections in that we are attempting to remove the riparian weeds and replace them as much as possible with native vegetation. Limiting factors are lack of manpower and some opposition from residents who do not wish to see larger trees killed or removed. Some feel the bush is fine the way it is and have commented that they prefer a "multicultural bushland" to one starkly Australian.

Rob Waller



Young helpers at Section 2 working bee, Jacob and Calum Petroseshevsky and Ethan Congram

Some Lessons from the Big Frost

Much of our restoration work is planting. That requires decisions on what to plant and where, and there are some priorities. Firstly, of course, we must stay within catchment-endemic species, using as far as possible local provenance material. Then we look at the site. Poorer soils take us towards the open forest species, better soils to characteristic dry rain forest species and the creek-side alluvials to a few differences. Aspect too affects our choice, more sunny exposure favouring species which better withstand hot and dry conditions.

In our catchment, which experiences some frosting in most winters, we must also give some thought to cold tolerance; something of which we were reminded this last Winter when we had more severe frosts than usual. There was widespread damage in many low-lying areas, particularly exposed creeksides, and it is possible that some small plants, especially those more recently planted, will have lost all parts from which regrowth can occur. Overall however, it is unlikely that many plants will die, but there will be a check in growth. It is possible to reduce the likelihood of such damage by appropriate management practices, and it is the purpose of this article to explain these.

It should be noted at this point that what we refer to as "frost damage" is really low temperature damage, which for some species occurs at temperatures above freezing point, while others can withstand temperatures far below that. Frost is simply an indication of low temperatures and may or may not be associated with damage. It does not in itself cause damage, and so the term is really a misnomer; but it is convenient to continue using it.

What is frost and why does it occur?

Frost is formed when cold objects (and our interest here is in plant shoots) are in contact with air at higher temperature, causing water vapour to condense on their surfaces. If these are cold enough, ice crystals form, i.e. frost. If the air is very dry no ice can form. This situation is sometimes called black frost (no white ice crystals). The term is used when plant damage occurs in the absence of frost but at temperatures below freezing.

In the subtropics, the cause of the cooling is loss of heat from the relatively hot earth's surface by radiation to the sky. Air in contact with cooled materials is itself cooled, the more so at higher elevations and descends, leading to lowest temperatures at lowest elevations; though pools of cold air may be trapped in depressions and above (up the slope from) dense vegetation. The temperatures attained by plants depend on two major factors. One is the extent of interference with radiation loss by substances in the atmosphere; mainly water vapour and especially clouds, and solid objects such as higher canopies of other plants. The other is heat supply to plants from the surrounding air and by way of radiation from warmer objects including the soil surface. The temperature of the air and its ability to transfer heat to plants is affected by air movement. The interaction of all these things determines plant temperatures.

Damage

Some species, although few if any from our catchment, can be damaged by temperatures above freezing. The usual problem is when they are low enough to cause freezing of more tender plant parts, although there is great variability among species in freezing temperatures which are damaging. These are things which we can deal with only by choice of species, but there is something which we can manipulate. The "condition" of the plant affects its resistance. Those grown in conditions of low light and abundant water and nitrogen supply are more susceptible, as are those in the process of active shoot growth.

Minimizing damage

Arising from the foregoing there are a number of things one should consider.

1. **Site.** In the subtropics, the lowest elevations which are the coldest are the most frost prone. Slopes are safer than flat ground because of the tendency of air to move down them, as it may also move downstream in valleys. Depressions higher up slopes and sites above dense vegetation can be colder than other places at the same elevation. Species selected for growing at low-level sites, frequently near waterways, ideally need a level of frost tolerance not necessary for those selected for growing on hillsides.
2. **Species.** There is great variation among species in cold hardiness, which will correlate to some extent with their natural distribution on the basis of site factors. This is not however strictly so because in mature forests, plants are established within the shelter of cover by existing older and taller plants, a major factor in frost protection. As an example, the list (below) of frost intolerant species includes *Stenocarpus sinuatus* and *Ficus virens*, of which there are splendid old remnant trees in what are topographically our most frost prone locations; but almost certainly established within closed canopies, long since destroyed. Nevertheless, there are species which are damaged by cold air, above freezing temperatures and where cover may be of little help, and which should preferably not be planted. The lists of susceptibility do not include that category. Our recent cold weather seems to have shown up a few such species. One example is *Elaeocarpus grandis*, which has been quite widely planted in our catchment; but is not known to occur naturally in our catchment. There is a warning in that! The lists of hardiness, in three categories from hardy to highly susceptible, seem to be the only guidance available. Note that they include less than a quarter of what we would regard as a reasonably good species representation.
3. **Provenance.** This term refers to the regional origin of the plants being used. There is some genetic variability within a species across its distribution, and in some cases this includes genetic variation in frost tolerance. It is undesirable for several reasons to introduce plants from too far away from the site where they are to be planted.
4. **Cover.** There has been much planting by both Bushcare groups and private landholders in our catchment, and it seems that there has been very little serious damage where this has occurred in association with existing taller vegetation; in contrast to plantings in open areas. This leads to the advice that where there is no protection, planting should commence with tolerant species, preferably fast growing to allow early introduction of the less tolerant. Where planting is to be carried out following weed clearing, there is much to be said for leaving the weed residue as shelter if its structure is suitable, e.g. *lantana*, either after stump poisoning or having been sprayed. Indeed, progressive partial removal of weeds and interplanting can be useful. Many species, and particularly those appropriate to rain forest, require cover for reasons additional to frost protection, and thus use of cover should be regarded as desirable general practice.
5. **Condition of plants.** Plants which have been nursery grown should, before being planted out, be exposed for a few weeks to full sunlight (except those adapted to understory existence), and reduced watering and fertilizer- especially nitrogen-application, a process known as hardening. Soft new growth is highly frost susceptible. Non-hardened plants are also susceptible to other environmental damage, including sunburn, drought and insect attack.

Some Lessons from the Big Frost (cont.)

6. **Surrounding surface.** Warm soil, litter and mulch surfaces in the vicinity of the plant are useful through both warming the air and providing radiation to the plant. Dark and moist surfaces are more effective in storing heat from radiation during the day. Light coloured, dry mulches are thus undesirable in this respect, but thought has to be given to the pros and cons in any particular situation.

A concluding remark

This account is not intended to warn that frost is a serious problem for us. It can check growth of some species for a while but it rarely kills anything. And we can reduce the threat as discussed above. Our aim is to enhance biodiversity; that is, to maximise the presence of endemic species. It is suggested that it is better to run the risk of occasional loss than not give the species the chance of being there. The following lists of frost susceptibility are taken from *Trees and Shrubs*, published by Qld. Dept. of Primary Industries (1995), with the deletion of a few species which probably do not occur in this catchment. Presumably the categories refer to full exposure (which we can avoid).

Graeme Wilson and Liz Gould

Withstanding heavy frosts

<i>Acacia fimbriata</i>	<i>Eucalyptus major</i>
<i>Acacia leiocalyx</i>	<i>Eucalyptus melanophloia</i>
<i>Acacia melanoxylon</i>	<i>Eucalyptus moluccana</i>
<i>Allocasuarina torulosa</i>	<i>Eucalyptus siderophloia</i>
<i>Angophora subvelutina</i>	<i>Eucalyptus tereticornis</i>
<i>Brachychiton populneus</i>	<i>Grevillea robusta</i>
<i>Callistemon viminalis</i>	<i>Lomandra longifolia</i>
<i>Casuarina cunninghamia</i>	<i>Lophostemon suaveolens</i>
<i>Corymbia tessellaris</i>	<i>Melaleuca bracteata</i>
<i>Eucalyptus crebra</i>	<i>Melia azedarach</i>
<i>Eucalyptus curtisii</i>	<i>Rhododaphne rhodanthema</i>
<i>Eucalyptus drepanophylla</i>	

Tolerant of light frosts

<i>Alphitonia excelsa</i>	<i>Eucalyptus acmenoides</i>
<i>Aphananthe phillipinensis</i>	<i>Eucalyptus micrococorys</i>
<i>Araucaria cunninghamii</i>	<i>Eucalyptus propinqua</i>
<i>Argyrodendron trifoliolatum</i>	<i>Euroschinus falcata</i>
<i>Auranticarpa rhombifolium</i>	<i>Ficus macrophylla</i>
<i>Brachychiton discolor</i>	<i>Flindersia australis</i>
<i>Callistemon salignus</i>	<i>Flindersia xanthoxyla</i>
<i>Castanospermum australe</i>	<i>Glochidion ferdinandi</i>
<i>Commersonia bartramia</i>	<i>Hovea acutifolia</i>
<i>Cordyline petiolaris</i>	<i>Hymenosporum flavum</i>
<i>Corymbia citriodora</i>	<i>Lophostemon confertus</i>
<i>Corymbia henryi</i>	<i>Macaranga tanarius</i>
<i>Corymbia intermedia</i>	<i>Mallotus claoxyoides</i>
<i>Cryptocarya triplernervis</i>	<i>Mallotus philippensis</i>
<i>Diploglottis australis</i>	<i>Pittosporum revolutum</i>
<i>Dysoxylum fraserianum</i>	<i>Pittosporum undulatum</i>
<i>Dysoxylum rufum</i>	<i>Podocarpus elatus</i>
<i>Erythrina vespertilio</i>	

Not tolerant

<i>Acmena smithii</i>	<i>Harpullia pendula</i>
<i>Alpinia caerulea</i>	<i>Omalanthus populifolius</i>
<i>Cupaniopsis anacardioides</i>	<i>Jagera pseudorhus</i>
<i>Ficus coronata</i>	<i>Neolitsea dealbata</i>
<i>Ficus oblique</i>	<i>Pararchidendron pruinosum</i>
<i>Ficus platypoda</i>	<i>Polyscias elegans</i>
<i>Ficus virens</i>	<i>Rhodamnia argentea</i>
<i>Flindersia collina</i>	<i>Stenocarpus sinuatus</i>
<i>Flindersia schottiana</i>	<i>Syzygium australe</i>
<i>Gmelina leichhardtii</i>	<i>Waterhousea floribunda</i>
<i>Harpullia hillii</i>	

Planting Day after Frost

The Lower Moggill Creek Bushcare Group's October tree planting day along Moggill Creek took advantage of the weed kill effected by this year's big frost when 20 Adults and 10 children in 2 hours planted in their place over 500 native trees and shrubs.

Before the frost, the MCCG Section 2 site in the community park at the end of Fortrose Street, Kenmore was dominated by Guinea grass, glycine, Madeira vine, Singapore daisy and castor oil plants. It is just one section of a creek bank that the group, supported by the Brisbane Council's Bushland Rehabilitation Unit, has been progressively rehabilitating over the last 5 years.

With BCC's Bushland Rehabilitation Unit supplying the trees and the mulch, the specially organized 'Giant Tree-planting Day' was successful in getting nearby residents involved and local plants in the creek bank.

"The day provided an opportunity for volunteers to learn about the role riparian vegetation plays in protecting water quality and providing habitat for wildlife," the day's organizer, Rob Waller, said. "They enjoyed it immensely and were rewarded with home-baked biscuits at the completion of the planting. It was also a bonus for us as some have vowed to return for our regular monthly plantings. The challenge now is to maintain the site, and contain the weeds' regrowth until the planting is large enough to shade the site and contain the weeds."

Judy Gower



Natalie Skelhorn, 5, and Tom Lelasi, 10, learning tree planting from Judy Gower.

Membership 2003

MCCG membership for 2003 is due on November 28 and is \$10.00. Your membership supports practical care for our catchment by:

- endorsing catchment care and rehabilitation;
- supporting the volunteer work that is enhancing our local environment;
- ensuring continuing Council and BFP support for catchment activities.

As a member you can also choose to join in any or all of the activities listed on the membership form. The subcatchment sections and section leaders are listed for your closest contact. Or talk to the chairman, Bryan Hacker, on 3374 1468 (email jbhacker@powerup.com.au).

You can take out or renew membership at the AGM (7.00 pm Thursday 28 November, Arts Pavilion, Brookfield Showground) or use the form in this newsletter and post it to The Secretary, MCCG, PO Box 657, Kenmore 4069.

Membership Application/Renewal Form for 2002-2003

(Where two or more members of a household wish to take out membership, each should apply separately.)

Title: First/Preferred name: Surname:

Address: Postcode:

I live in subcatchment (see Sections overleaf)

Telephone number: Email:

I hereby request membership/renewal of membership of the Moggill Creek Catchment Group.
The annual subscription of **\$10.00** is enclosed.

Please circle any of the following as it applies to you.

- I seek advice in revegetation on my own land.
- I would like to participate in working bees on public land.
- I am willing to provide assistance with MCCG activities such as seed collection, newsletter production/distribution; promotional displays; publicity and marketing; Annual Photography Competition; fund raising activities; refreshments for public meetings and/or working bees at our native plant nursery or on public land.
- I would like to become a Section Leader.

Signed: Date:

Please send completed form and annual subscription to the Secretary, MCCG, PO Box 657, Kenmore, Qld 4069.

The Section leader/contact in your area is looking forward to hearing from you!

Section 1	Pullenvale/Moons Lane	<i>Vacant</i>	
Section 2	Lower Moggill Creek	Rob Waller	3378 6897
Section 3	Huntington	Malcolm Frost	3374 0649
Section 4	Showgrounds	Stephen White	3374 1653
Section 5	Haven Road	Tina Heybroek	3374 1401
Section 6	Upper Brookfield	Kate McVicar	3374 1471
Section 7	Gold Creek Reserve	Bruce Noble	3300 4855
Section 8	Wonga Creek	Graeme Wilson	3374 1218
Section 9	Upper Gold Creek	Gordon Grigg	3374 1737
Section 10	Lower Gold Creek	Chris Mackey	3374 1676
Section 11	McKay Brook	Bryan Hacker	3374 1468
Section 12	Gap Creek	Michael Humphreys	3374 1467
Section 13	Mt Coot-tha Park	John McKenzie	3407 0013

Hats for Plants

Like a hat or a cap or a bag with the MCCG logo? These have been produced with support from BCC. Their sale to members and supporters help finance plants. The hats etc will be available for sale at the AGM. Otherwise contact Judy Gower on 3878 4790.

AGM

See you at the MCCG AGM
7.00 pm Thursday, 28 November
Arts Pavilion, Brookfield Showground, (top gate)

- Hear Professor Stuart Bunn from Griffith University talk on the role of Fauna in Catchment Ecology
- Share the MCCG Progress Report
- Raise any Catchment Issues
- Renew your membership for 2003