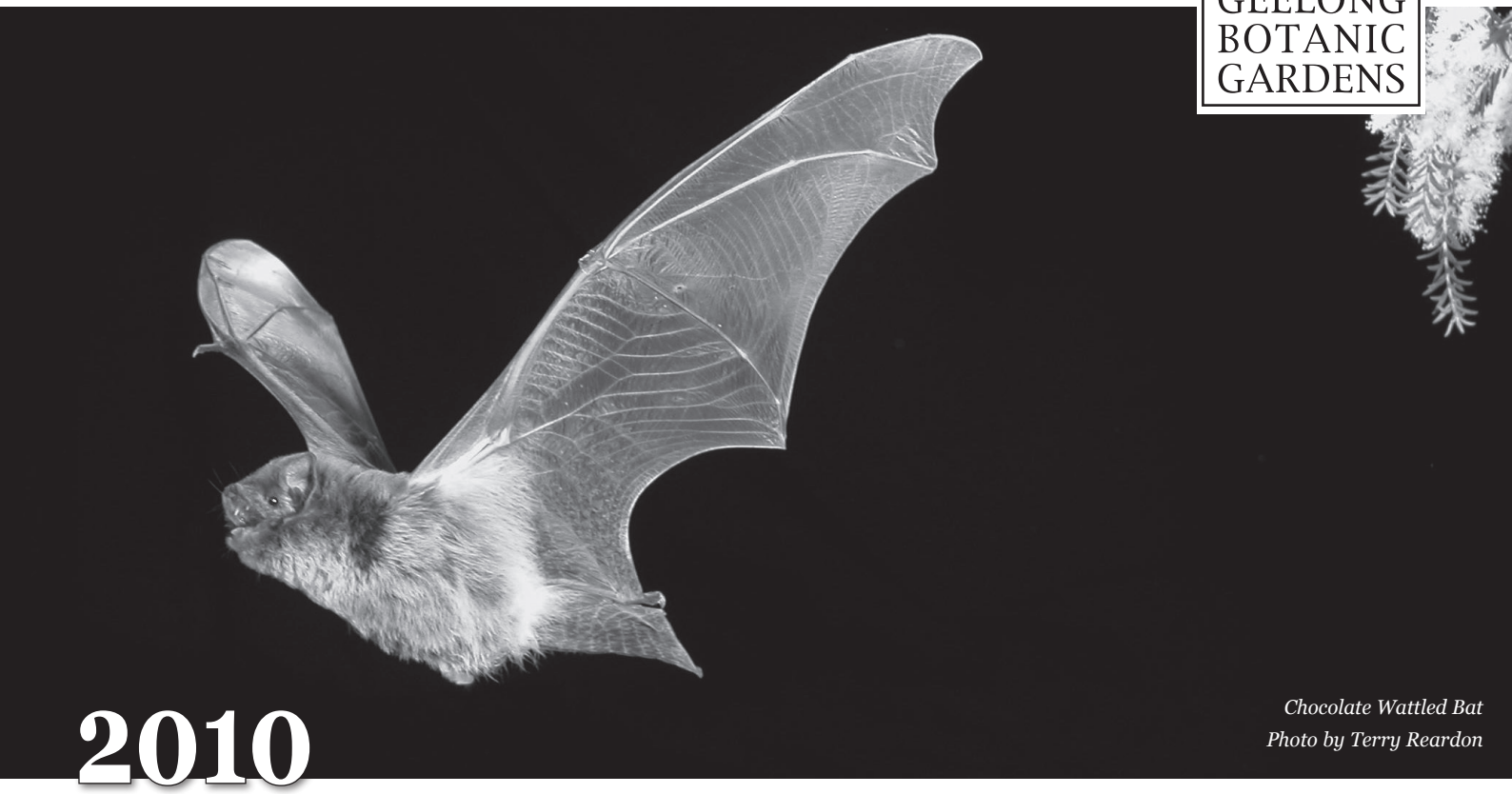
Jubaea

Friends of Geelong Botanic Gardens Inc Newsletter Volume 10 Issue 3 July/August/September 2010

FRIENDS OF GEELONG BOTANIC GARDENS



Chocolate Wattled Bat
Photo by Terry Reardon

2010
United Nations International Year of Biodiversity
Global Issue..... Local Responsibility.....

In 2002 World Governments set the year 2010 as a deadline to achieve significant reductions in the rate of loss of global biodiversity. Eight years later, we are far from reaching that goal. With the growth of the world economy and ever increasing rates of human settlement, the pressure on planet Earth is intensifying.

Those interested, passionate and engaged with Botanic Gardens have long been aware of the global threat to biodiversity. Historically the botanical focus has been on individual species however the broader issue of ecosystem and habitat loss has moved to the forefront. Plant collections held in Botanic Gardens across the globe offer enormous value to research, conservation, science, education and horticulture. The knowledge that these same rare, unusual and useful plants survive and prosper in their natural state is even more important. While plant material held within botanic collections offers a precious opportunity for reintroduction, conservation of whole communities, with their habitat and micro environments intact, is far more important.

Global access to media now ensures that complex knowledge related to natural systems is widely available. Information on species, habitats, ecosystems and the elements that might influence or alter them appears daily in the media. Thirty ago these facts would have been exclusive to science and the academic community. It is worrying that even with access to information, the pace of biodiversity loss has neither slowed nor halted.

When the United Nations launched 2010 as the International Year for Biodiversity it also stated that 21% of all known mammals, 30% of all known amphibians, 12% of all known birds, 28% of reptiles, 37% of freshwater fish, 35% of invertebrates and a frightening 70% of plants so far assessed are under threat. Biodiversity is indeed a global issue.

It is even more worrying when we consider the role that plant species play in the survival of the planet. Consider the role of plants in relation to the provision of food, medicines, shelter and habitat for millions of species. In the 21st century plants are playing an ever more important role in our modern world. The emerging science of 'Bio Mimicry' involves examining natural systems and translating those systems or structures into products and processes. An example is the study of the lotus leaf. The structure of the lotus leaf has informed the production of a new generation of surface finishes. These contain microscopically rough additives. The design of this new surface performs to the same standard as the old surface, however requires 8 times less cleaning. The outcome is a dramatic reduction in the need for cleaning chemicals. An environmental gain learned from a natural system.

The Geelong Botanic Gardens and surrounding Eastern Park within the City of Greater Geelong is a biodiversity 'hot spot'. This is the result of a rich natural environment combined with over 150 years of plant collecting. The late Don Foreman, former resident Botanist at

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the Geelong Botanic Gardens, estimated that the precinct is home to almost 7,000 species. Within Eastern Park grow remnant limestone grasslands; locally and globally rare. Nearby, along the coastal edge is the salt-marsh community, RAMSAR listed; this community is locally common but globally rare. Eastern Park and the GBG are home to an important collection of native and exotic species, many rare and endangered in their natural habitat.

We often think of reducing biodiversity as a global issue, something happening at the edge of the Indonesian rainforest, along the banks of the Amazon or in significant hypersensitive areas such as Australia's own Great Barrier Reef. What is happening in our own backyard is equally, if not more important.

How does Geelong perform on a National biodiversity scale? Poorly. In June this year the Australian Conservation Foundation published the 2010 Sustainable Cities Index, measuring 20 of Australia's largest population centres. Geelong ranked 18 out of the 20 and scored poorly on environmental performance. The measure of Geelong's biodiversity in the Sustainable Cities Index states... "low habitat connectivity, the highest level of landscape stress, 0 – 2 per cent of land set aside for conservation purposes and 70 – 90 per cent of ecosystems at risk". Indeed this outcome directly challenges the City of Greater Geelong and its residents to take action on biodiversity.

Biodiversity is the variety of life on Earth. It includes all organisms, species and populations; the genetic variation among these; and their complex assemblages of communities and ecosystems.

International garden guru Monty Don suggests... " picture yourself, then build in your family, your street, neighbourhood, suburb, town, City, State, your Nation then Planet Earth". If we think clearly about what Monty suggests we begin to understand that small steps taken by each individual will combine to cause a ripple of change across the globe. If we ignore our responsibility then the threat to local and global biodiversity will have unchangeable consequences for future generations.

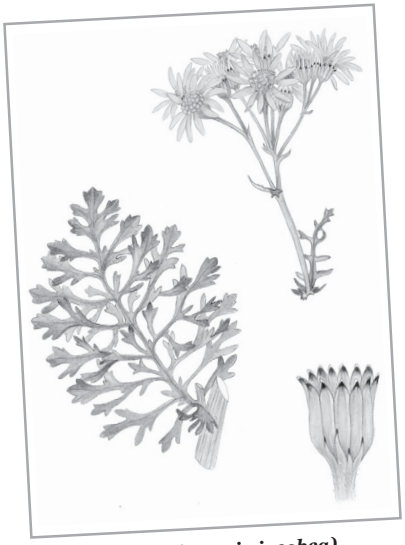
The species growing in our own gardens can add to the biodiversity of our neighbourhoods. Protection of remnant tracts within our suburbs will help secure our local environment. Sustainable building practises will enhance our suburbs and cities, to the benefit of all. Government policy, that imbeds long-term environmental change and assists the individual while providing for communities, business and sustainable development, will secure both our environment and our economy. A national policy that acknowledges and acts on our global responsibility will protect significant ecosystems, recognise and responsibly manage finite resources and immediately take action on climate change.

If we combine environmentally responsible management with social and economic benefit we will start to address the global threat to biodiversity. This challenge cannot be left to solely to Government. The place we live is also the place to take action. Individual responsibility has the potential to force a ripple of change.

Helena Buxton
President - Friends Geelong Botanic Gardens

Weedy Wonders

Next time you see a Mirror Bush, look at the back of the shiny leaf. Where the veins meet the midrib you can easily see tiny cavities or pits called domatia. Tiny mites live in these. We don't know why the mites are there but like all plants *Coprosma repens* and the mites are part of a wider natural web. It is now a quite widely naturalised and weedy plant. We find weeds a nuisance but nature doesn't. When land becomes degraded the weed colonisers come in and thrive. They re-establish the soil structure, recycle carbon dioxide and generally flourish, like boneseed in the You-Yangs or ragwort. After a time other species compete with the colonisers and take their place. Perhaps an entirely different flora will generate. Often these colonisers are stronger and more aggressive than our own native, ancient and very beautiful flora.



Ragwort (Senecio jacobea)

Botanising in a stoney bare landscape in the south of France in the early 20th century.

In the south of France goats and sheep ate the shrubs and herbs and people cut down trees for fuel and building. Over time the landscape became bare. People moved to the cities from the land and other changes occurred that rested the countryside. Now a new flora has emerged, the 'Garrigue,' where more than two thirds of the nations plants are represented. Man-provoked or not, climate changes and the flora adapts. We have a passion for the flora as it stands at the moment and we want to preserve it. But it too, of course, is evolving. Species come and go. We worry that the current huge impacts on nature will diminish biodiversity. One thing is certain, if we don't know what to do, nature surely does and the balance will re-establish.

Enid Mayfield
Illustrative Researcher GBG

Planting A Parkland for Future Generations

Eastern Park, looking to Geelong [c.1930] Daniel Pratt (photographer) 1893 -1968
Courtesy La Trobe Picture Collection, State Library of Victoria

In early 2010 the City of Greater Geelong commenced the next stage in the implementation of the 2008 Eastern Park and Geelong Botanic Gardens (EPGBG) Strategic Master Plan. This is a significant milestone for the City, as the Strategy will provide an important guide in managing the environmental, cultural and historic elements that form the core of Eastern Park and GBG. Award winning consultants Rush Wright Associates are working with staff from various departments within the City to guide the plans to completion.

The greatest and most immediate challenge is management of the senescing tree population. Work will include removal and replacement of trees within selected precincts in Eastern Park. A planning strategy has also commenced that recognises and strengthens the important visual links between Eastern Beach, Eastern Park and the GBG. This work will benefit the EPGBG as a whole, contributing to botanical, cultural and historical values - strengthening the parkland's position as a valuable asset for the people of Geelong. Importantly this new work offers the potential for EPGBG to be 'reinvented' as a key tourist destination in its own right, a quality well known to visitors in the late 19th and early 20th Century .

The Strategic Plan is a bold initiative, work undertaken now will set the framework for management of Eastern Park and the GBG for the next 50 + years. Species will be carefully selected for each precinct, enabling City management to begin preparing suitable stock. It is imperative that a short, medium and long term planting strategy is implemented for tree replacement. A phased approach will ensure future generations do not face the experience of the last decade, with the decline of vast numbers of trees due to age and drought.

The careful selection of species will enhance the visitor experience and add to the heritage value of Eastern Park and GBG. Importantly, species will be chosen for their resilience to prolonged periods of drought. Some stock will be grown from material sourced from within EPGBG, other material will be sourced from specialist collections, adding depth to the conifer and dry parkland species.

Tree planting in 2010 will include the planting of an avenue of trees along a north-facing section of Eastern Park Circuit. This section currently consists of a fragmented and senescing tree population. A significant avenue will be planted with a triple row of *Eucalyptus leucoxylon ssp megalocarpa 'Elite'* on the northern side, and a double row of Pinus pinea on the southern side. To strengthen the design of a treed avenue, the gravel shoulder will be reduced on the northern roadside (inline with the Strategic Master Plan).

In addition to implementation of the treed landscape, planning is also underway for a building, or set of buildings, catering to business already in operation within Eastern Park and GBG. This work is further refinement of the 2008 Strategic Master Plan. Consideration is being given to a purpose built facility, carefully sited in Eastern Park that will provide a visual and physical link between the Botanic Gardens and Eastern Beach. The intent is to provide a set of "pods" that will have the capacity to deliver a full program of education and precinct related activities. The proposed Visitor Precinct will engage with the public while strongly supporting the aims of the Geelong Botanic Gardens and surrounding parkland. A carefully planned facility as a core to the Visitor Precinct within Eastern Park and the GBG will raise the profile of the Gardens and the services delivered well beyond Geelong.

Commencing with the implementation of a significant new treed avenue, 2010 is an exciting time for EPGBG. Of even greater importance is the realisation of a planning process with a future capacity to deliver high quality visitor services and a dynamic education experience. These new possibilities will draw broad interest from groups both within and beyond Geelong. With careful planning the Community can be sure that education, history and culture will continue to combine with the simple pleasure of enjoying our Parkland and Garden long into our City's future.

Lisa Monahan
Landscape Architect, City of Greater Geelong

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In flight... an insight into the birdlife of Eastern Park

The author's fascination with the birdlife of the Park began in December 1979 when, as a young science teacher at nearby Geelong High School, he invited students to join him in an "end of year activity" to survey the birdlife of the Eastern Park. Seven students accepted the challenge and the survey results were then submitted as part of the first Atlas of Australian Birds. This was a nationwide project, organised by the Royal Australasian Ornithologists' Union (now Birds Australia) to map the breeding and non-breeding distribution of all Australian birds against longitude and latitude.

From 1979 to the present the list of birds species recorded in Eastern Park has slowly grown to almost 140. When the period of study is extended to 1887, including the period 1887-1912 when Charles Belcher (later Sir Charles) observed birds in the park, the total number of bird species increases to around 150.

This article aims to focus attention on four noteworthy bird species which inhabit the Eastern Park.

The visits to Eastern Park in recent years by **Yellow-tailed Black-Cockatoos** *Calyptorhynchus funereus* have been part of a much wider expansion of the species into the Geelong region since 1993. The cockatoos forage for Pinus seeds in the park, in autumn and winter, when flocks may number well over 100 birds.

Yellow-tailed Black-Cockatoos

A roost of **Nankeen Night Herons** *Nycticorax caledonicus,* in a grove of *Pinus pinea* in the east of the parkland, has been known to local residents for over 35 years. . As many as 20 birds may roost though numbers generally drop in spring, when the birds go elsewhere in the region to breed. Breeding has been recorded on at least two occasions at this roost in Eastern Park. On one of these occasions food items found on the ground under the nest indicated that the parent birds were foraging in both marine and freshwater environments. A small redfin suggested a round trip of at least 6km to freshwater whereas the bivalve shells could have been collected within 750m from Corio Bay.

Nankeen Night Herons

Australian Hobbies *Falco longipennis* have bred regularly in the Park for many years. These dynamic falcons are Australia's smallest bird of prey, with the male being smaller than the female. The birds use the old nests of Little Ravens *Corvus mellori* placed high up in a *Pinus radiata.*

Australian Hobbies

Noisy courtship displays occur, from mid to late August through to late September, when the birds are establishing or re-establishing the pair bond and selecting a nest site. The female goes into egg laying torpor in mid to late September when she perches quietly and unobtrusively whilst giving her body time to produce the eggs. During October incubation takes place and is shared by both birds. At this time the birds are at their quietest and are more difficult to find. Hatching of the eggs occurs in the last few days of October or early November. Only the female broods the nestlings. Up until mid-way through the nestling period (mid November) it is usual for the male to do all the hunting for his mate and their young bringing sparrows and other similarly sized birds as prey. As the nestlings develop and they are able to regulate their own body temperature the female starts hunting, to assist the male, and generally brings larger prey, such as starlings, to the young. The young usually fledge in the first week in December.

A far more secretive and perhaps even more intriguing bird of prey found in Eastern Park is the **Collared Sparrowhawk** *Accipiter cerrocephalus,* which has been discovered nesting in the parkland as recently as October 2001. On this occasion, only

the third confirmed record for the species in Eastern Park, it was a huge thrill for the author, to have his attention completely taken by a male sparrowhawk arriving in the nest area, with prey in his talons, uttering soft contact notes to draw the female from the nest. The female flew to the male, from the unseen nest, then perched and took the prey from him only to drop it. In the blink of an eye, or less, she left the perch and looped around to catch the item before it hit the ground - simply adding to the already thrilled observer's sense of wonder, excitement and amazement!

Collared Sparrowhawk

The adult sparrowhawks tend to stay undercover and remain in contact with each other with subtle and unobtrusive soft piping calls which can easily go un-noticed. These birds generally build their own nest placed high in the dense foliage of a *Pinus radiata.* The female does most of this job with the male occasionally being "dragooned" into helping.

Like other birds of prey the female sparrowhawk is larger than the male. As with the hobbies, the male sparrowhawk is the major, if not sole, provider of prey until midway through the nestling stage. At this stage the young are well feathered and able to regulate their own body temperature and continue to demand more and more food from their parents.

Craig Morley
(Member Geelong Field Naturalists Inc & Friend of GBG)

Bats in The Belfry

Eastern Park is the home to a number of bats species. Of the 16 bat species recorded within the Geelong region, five insectivorous and one flying fox species are resident and foraging within Eastern Park. The species present include ...**White-striped Freetail Bat** ... **Lesser Long-eared Bat** ... **Gould's Wattled Bat** ... **Chocolate Wattled Bat** ... and ... the **Little Forest Bat.** They range in size of head and body length from approximately 120mm down to 40mm.

The **Grey-headed Flying Fox** (GHFF) colony is one of three permanent camps in Victoria, and the most southern maternity colony in the State. The GHFF *(Pteropus poliocephalus),* also known as the Fruit Bat, is one of 13 species of "megabats" (megachiroptera).

Foraging Strategy

Insectivorous bats locate their food and navigate in the dark using echolocation. By emitting loud sound pulses (usually at a higher frequency than the human ear can hear) and listening for the echoes to bounce back, bats can forage throughout the parkland mostly unnoticed. Flying Foxes do not echolocate, but use the simple method of sight and smell to find their food.

Diet

Insectivorous bats will capture much of their food within the parkland or nearby salt fields. They eat moths, beetles, mosquitoes and bugs and will eat about 30% of their body weight in insects each night (10 to 20 mosquitoes per minute). As such they play an important role in controlling nocturnal insects within the park.

Flying Foxes need to travel much further away from the park to gather enough food and may travel as far as 40 km away and visit 50 to 60 trees in a night. They predominantly feed on fruit, nectar and sometimes leaves.

Day Roosts

Insectivorous bats have very specific day roost requirements, including entrance diameter, height above the ground, cavity temperature and humidity. They will typically roost under loose bark, in fissures, hollows and spouts of trees, however they will use human made structures including gaps in buildings and sheds, and perhaps other structures in the park.

The Grey-headed Flying Fox colony has settled its permanent camp in the pines adjacent to East Geelong Golf Club. This is possibly due to the shelter, temperature and humidity conditions available at this location that differ from other areas within the park. Special ligaments in their legs allow the GHFF to lock their feet onto a branch so they do not expend any energy while at rest. They also give birth in this hanging position. Branches are stripped of foliage to create roosting space and this is when significant damage to trees can occur.

Behaviour

Nightly activity patterns of insectivorous bats generally peak for 2 to 3 hours after dusk and a secondary activity peak just before dawn. During winter when food is scarce bats will remain within the roost and save energy by entering a shallow form of hibernation.

Flying Foxes depart the roost 20 to 40 minutes after sunset however will return back into the camp in the early hours of the morning depending upon food availability and distance they have to fly to reach their feeding areas. GHFF can mate all year round but the main season is March-April. Births occur in September-October. The mother carries the young for 6 weeks then the young are left in "crèches" at night during December-January when the mother feeds.

Summary

The population of insectivorous bats within the park remains stable, this is helped by an abundance of available food and roost sites, either in trees or other structures.

The Grey-headed Flying Fox colony is managed, fluctuating between 6,000 during winter and climbing upward of 20,000 over summer. The aim is to retain the current roost site amongst the pine stand at the Golf Course western boundary and prevent roosting within the Botanic Gardens.

Actions have included

1. Fencing the site to prevent cars from entering the roost area
2. Replanting of trees for future roosting structure within the camp
3. Installation of interpretation signage

Future tree plantings within the park will include some tree species to be used as feeder trees, this will assist in taking the feeding pressure off the Botanic Gardens. Occasionally action is required to shift bats from protected trees within the Botanic Gardens. This is limited to loud early morning noise. This action moves the colony back to its preferred roost amongst the *Pinus radiata* near the East Geelong Golf Club. Both the Royal Melbourne and the Sydney Royal Botanic Gardens have adopted similar noise control measures to protect rare and historic trees.

Grant Baverstock
City of Greater Geelong, Maintenance Officer, Parks

Flora at the Edge

Throughout the Geelong region there are many areas of indigenous flora. It is difficult to select a single group for extra scrutiny because each plays an important role in the region's biodiversity. Amongst the mix are the Saltmarsh Communities around Corio Bay, Coastal Dunes of Bass Strait, Riparian Edges of the Barwon River Valley and the Anglesea Heathlands. However, what draws our attention is Victoria's Volcanic Plains Grassland, one of the most threatened plant communities in Australia.

Spreading from the western side of Melbourne to the South Australian border, the Victorian Volcanic Plains were noted to be one of the largest grassland plains in the world. Over the last century this expansive plant community, with its complex mix of grasses and forbes, has been reduced to only 2% of its original spread. The reason... an expanding population, changes to agricultural techniques and exotic weed invasion... the combined pressure has meant that much of the biodiversity in these areas has been reduced to what we find today.

In some cases remnant stands of flora can be found in reasonably large sways. Locally we refer to the Corio Grasslands, around the base of the You Yangs stretching to Corio Bay and toward Anakie. Grassland species can also be found in discrete pockets in Eastern Park, along smaller road-side verges, railway sidings, coastal edges and cemeteries.

Within Eastern Park surrounding the Botanic Gardens there is a surprising amount of remnant flora. Poor soil profiles and minimal disturbance has ensured that indigenous species co-exist with the exotic invaders. Over the previous decade a small fenced area has been monitored, with no mowing or vehicle compaction. This grassy oasis (a messy patch to the uninformed eye) has allowed the remnant flora to grow through its life cycle, fighting successfully against weed invasion.

During the development of the 21st Century Garden the construction site was fenced off from mowing and other park usage. With little or no disturbance botanists and local plant enthusiasts observed that grassland plants like *Themeda triandra* (Kangaroo grass) were growing well, flowering and may in some cases exceed more than 100 years of age. During plant surveys *Pimelea sp.* (Rice flower), *Convolvulus sp.* (Pink Bindweed) and two varieties of *Dianella sp.* were noted within Eastern Park.

Establishment of the Regional Garden along Podbury Drive has seen an expansion of the species. Trial plantings of many grasses struggled through the drought. Last Winter and this Autumn inter plantings of grasses and petaloid monocotyledon species was undertaken. The recent rain may offer a few flowering surprises.

Throughout the greater Eastern Park area a management regime that monitors or eliminates mowing in selected pockets may allow establishment and spread of indigenous grassland species. Careful analysis of both weedy and indigenous species and an understanding of their co-existence and appropriate management regimes may see natural establishment of Geelong's own grassland, all within a kilometer of the City centre.

Retaining the region's biodiversity is a challenge for the future and will entail ongoing monitoring of the flora within the various plant communities. While long-term weed reduction programs will help sustain existing flora, establishment of rare and endangered species in a variety of locations must be encouraged. Survival of some of the rare and unusual plants significant in Grasslands may very well mean the survival of an equally rare group of insects or butterflies in our region.

From a botanical perspective we know that each plant has value, however we also know that plants play a vital role in habitat creation. Conservation of these last remaining stands of flora is critical to maintaining and strengthening the regions biodiversity.

Phil Mulroyan
Acting Director, GBG

Can you help the FGBG Growers?

The Growers have been working hard, producing over 4,000 plants so far this year. As a result, they are now running short of plastic pots again. If you have 6" black plastic pots to spare, please bring them in to the nursery. They can be delivered to the growers on Wednesday mornings, or left near the nursery gate on any week day.

The massive production of plants has also placed pressure on the people who print labels each Wednesday morning. Extra help is needed:

- to bring label orders from nursery to office
- to check plant details in reference books
- to stick printed labels to plastic FGBG labels
- to deliver completed labels from office to nursery

If you would be willing to help and have time to spare between 10am & 12 noon on Wednesdays, please contact the FGBG office. A basic familiarity with plants and plant names would be helpful, but no real expertise is needed.

As well as working hard, the FGBG Growers are a vibrant and sociable group, who enjoy morning tea together. Sometimes it's a famine, and sometimes a feast, but it's always fun! Please consider joining our production team.

Species Under Threat
Australian Elm Register

30 Years ago the State of Victoria would not have thought our Gardens and Townships would hold the last remaining great stands of Elms on the globe.

The article that follows was submitted by the Friends Of The Elms (FOTE) and is a plea for help to maintain this last healthy population.

The South Eastern States of Australia have been most fortunate in having thousands of magnificent northern hemisphere trees planted by our early landscape architects and gardeners, in parks, streets and private gardens.

The elm has been used extensively in both urban and rural areas to provide structure to many well known Australian gardens, both public and private. Elm trees lend themselves to avenues, looking wonderful during all seasons, with the electric green of spring, the dense darker foliage of summer, the yellow glow of autumn, and the cathedral majesty of their boughs in winter.

As most readers would be aware elms worldwide have been devastated by Dutch Elm Disease, and Australia is one of the few countries not yet hit by this deadly fungus. Millions of elms have been killed in Europe, in a large part of Asia and most of the USA. In Southern England alone, the loss has been put at 17 million elm trees.

Dutch Elm Disease is a fungus whose spores enter a tree's vascular system where they multiply and become sticky yeast cells, which choke up the whole system. Branches wilt, leaves yellow and the tree dies in about one year. The vector, which spreads the fungus is the Elm Bark Beetle and lives under dead and dying bark in the elm tree. Australia does have the Elm Bark Beetle as well as the more familiar Elm Leaf Beetle, so we must be ever vigilant in minimizing these two beetles. Without the presence of Dutch elm Disease, the Elm Leaf Beetle is our major concern, as it can defoliate an elm in one season if not checked.

Owing to the ever present threat of Dutch Elm Disease being discovered in Australia, a contingency plan is soon to be released, which has been established by the Elm Pests and Disease Taskforce in Victoria. This Task Force is composed of government representatives, including Agriculture Victoria, the Melbourne City Council and Friends of the Elms. A major project, which the Friends of the Elms have undertaken, is the establishment of a register of all elms in Australia.

New Zealand's initial success at minimizing the impact of Dutch Elm Disease is largely attributed to the high standard of their elm register, and has taught us how imperative it is to have an extensive register to pinpoint geographically as many elms as possible. The New Zealand authorities inspected all elms and removed and buried elms exhibiting signs of Dutch Elm Disease. With annual inspecting, New Zealand was successful in identifying Dutch Elm Disease and almost eliminated it, however the government needs to keep funding the program to minimize the impact.

The Friends of the Elms would appreciate all elm owners registering their elms by ringing the Hotline 0409 870 860 to request a reply paid registration form, or provide the address of any elms of which they are aware, so that a form and explanation of the importance of the register can be mailed to the owners. As this is an enormous task for a small voluntary organisation we need the assistance of the community, and all people who work with gardens.

As Dutch Elm Disease has not come to Australia, the major threat to our elms is the European Elm Leaf Beetle which has no native predator in this country, and is rapidly spreading throughout Victoria. There are many different levels of defense to reduce the spread of this defoliating beetle. These include, simple banding of the trunk to catch the descending larvae at Christmas time, to complete canopy spraying, or the most effective defense is to inject the soil around the root system in early spring. It is also recommended to remove all dead wood from elms and any suckers that may be growing nearby, so that the main trees can be well maintained .The Friends of the Elms pamphlet gives details on all these methods and can be obtained by ringing the Hotline 0409 870 860 or writing to the office, C/- Burnley Gardens, 500 Yarra Blvd., Richmond 3121.

The Friends of the Elms Inc. is a not-for-profit organisation which was founded in 1990 for the purpose of raising funds for research into threats to our elm trees, both private and public. In addition the organisation exists to enable all levels of government to liaise with the public and keep people informed on the threats to elm trees and how they can assist in various ways.

Jo Grigg

If you have a significant Elm in your private garden you may wish to register or seek support through FOTE.

Friend Of The Elms will be visiting the FGBG during October. If you wich to contact them prior call their HOTLINE or write to.....

FOTE Office, C/- Burnley Gardens, 500 Yarra Blvd., Richmond, Vic., 3121. They would gladly welcome any new members!

Elm Avenue, Wombat Park, Daylesford
Photo: Gayle Thomas

What's on Events, dates for the diary

July

What: **Botanic Art Classes at the GBG**
When: Term 3 commences Tuesday 13th July
Every Tuesday, Friday and Alternate Saturdays
Tutors: Rita Parkinson, Dolores Malloni & John Pastoriza-Pinol
Where: The Friends Meeting Room
For cost and full details: Contact the Friends office 5222 6053

What: **Friends' Nursery - Winter Weekend Plant Sale**
When: Sat-Sun. 24-25th 10am-4pm daily
Where: Friends' Nursery, follow the red flags to the rear of the GBG

What: **Special Guided Walk - 'Hunters and Collectors'**
Discover how the First Australians obtained all their food and medicine from the land. Your GBG guide will show how their care kept the land sustainable over thousands of years.
When: Sunday 25th 2pm
Where: Meet your Guide at front steps of GBG

What: **Friends Annual Winter Lecture/ Lunch**
Speaker Dr. Timothy Hubbard, heritage architect and planner, will entertain Friends with an illustrated talk on the social role of the late 19th Century Conservatory Guests will be welcomed with a glass of champagne on arrival.
Where: Truffleduck, Balmoral Receptions, Hamilton Highway, Fyansford
When: Monday 26, 12 noon
Cost: Friends $60.00, non members $65.00 (wine not included)

August

What: **Special Guided Walk - 'The Asian Collection'**
Our Gardens are indebted to the early plant explorers who collected from the wild in China and to early Chinese gardens and nurseries that cultivated beautiful ornamental plants which are seen in art, literature and decoration. Join your Guide and discover the products of 2,000 years of Chinese horticulture that now enrich our Geelong Gardens.
When: Sunday 29th 2pm
Where: Meet your Guide at front steps of GBG

What: **Annual General Meeting**
Speaker Mr Scott Kerr, Friend of the RBG Melbourne, will present Guilfoyle's Volcano, a project of great historic significance. Learn about history, water conservation and the projects relevance to the Royal Botanic Gardens in the 21st C.
When: Monday 30th 6pm
Where: GBG Meeting Room

September

What: **Special Guided Walk – 'Flights of Fantasy'**
In association with Geelong Field Naturalists. A surprising number of birds live alongside the GBG. Learn which plants will attract honeyeaters, spot the elusive sparrowhawk and hear about the epic journeys of the yellow tailed cockatoos, discover the bird species, habitat, nesting and roosting places hidden amongst the tree canopy of the Gardens.
When: Sunday 26th 11am
Where: Meet your Guide at front steps of GBG

What: **Friends Discovery Day at RBG Melbourne** including a guided tour of the Volcano Project and the New Caledonian Collection
When: Monday 27th 8.30am to 4.30pm
Where: Bus Departs Oval Carpark nearest to Ryrie Street toilet block at 8.30am
Cost: Friends $25.00, non members $35.00
(BYO Lunch or purchase at the Cafe/Visitor Centre)

Remember to mark these important Spring dates in your Diary – full details appearing in the next edition of Jubaea

October

What: High Tea
When: Sunday 31st
Where: The Friends Teahouse

November

What: **25 Years of Friendship, A Silver Anniversary Dinner**
When: Thursday 25th 7 for 7.30pm
Where: Truffleduck, Balmoral Receptions, Hamilton Highway, Fyansford

Still Seeking Fine Floral China....

Do you have a spare fine china set, cup saucer and plate? Or perhaps you have seen a set at a local opportunity shop?

The teahouse is seeking donations of 'fine floral china' to help with future High Tea events.

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