



Newsletter of the Friends of Eurobodalla Regional Botanic Gardens

The Chef's Cap

December 2015



*Season's
Greetings*

What's new in this issue?

Meet the newly elected President and Committee

Why 2016 is a year to celebrate

Member's page and stories

Weed of the season

and lots more *plus a discount voucher!*



For Your Diary

19 January 2016 4:30 to 7:30 pm

Nature Play Family Twilight Event

Fun and free activities for everyone

★ **BOOKINGS ESSENTIAL** for either event: ph 44712544 ★

30 January 2016 2 pm

a special Friends' Quarterly Meeting

A Guided Walk through History

followed by afternoon tea at the Visitors Centre



Don't forget ***Christmas raffle tickets*** available at the Visitors Centre
\$2 each or 3 for \$5—drawn 21 December 2015



*Celebrate
the Friends
30th Anniversary*

Our History

It all started with a Coastwatchers' group concerned about the environmental impact of land development in the Shire and potential loss of our native flora. On 13 January 1986, Pat Spiers and Gillian Hume separately addressed a meeting of the Eurobodalla Shire Council (Council) about the concept of establishing a local "Flora Reserve" to preserve our flora. At that meeting Councillor Neville Gough moved to endorse and give support to the establishment of a Regional Botanical Gardens in the Shire.

On 12 May 1986, the Council's Community Development Committee reported on community support for the project back to Council and suggested the Deep Creek site. Council subsequently sought, and was granted, an Occupation Permit over the land as well as Forestry's help to establish the site as a botanic garden.

Forming a Friends Group was mooted shortly after and on 10 October 1986 a small community meeting resolved to establish the "Friends of Eurobodalla Native Botanic Gardens" with its committee headed by Pat Spiers.

In December 1986, the Council agreed to provide management of the botanic garden and set up a Management Committee under the Chairmanship of Dr Murray Wallace. Its five other members included a representative of Forestry, an elected Councillor (Richard Roberts), one Friend of ENBG (Pat Spiers) and two Council staff. Through much hard work the concept became reality and in July 1987 the landscape design for the site and the Herbarium was established at the home of Murray Wallace. The gardens were said to be "on the way".

Where we are today

Thanks to the foresight of our pioneering Friends, Council and Forestry (now Forestry Commission of NSW), and the hard work of many Friends and volunteers over the past 30 years, we can all enjoy the wonderful facilities and experience that the Eurobodalla Regional Botanic Garden has to offer today – gardens, walks, barbeque and picnic areas, the children's play-space, a heritage listed herbarium, seed bank, propagation and sales of local plant species. Around 50,000 visitors per annum agree it is a great place.

Where next

The Friends role has always been to support the Gardens through raising awareness and funds for capital works. Visitor numbers are increasing and the Friends are busy raising funds for new projects – increasing the car parking space, barbeque facilities and significantly, the redevelopment of the Visitors Centre. We will also continue to support the Gardens staff and volunteers with their maintenance work in the Gardens.

Celebrating our achievements

During 2016, the Friends will be organising lots of events and activities – some to raise funds and some just to acknowledge the work of Friends past and present.

Join in. Encourage others to get involved and become a Friend

President's report

As incoming President, I would like to start by thanking Heather Haughton, immediate past President, for her very hard work over the past four years. I look forward to continuing to work closely with Heather into the future. I had the opportunity to personally thank her at the Awards Night for the Photo Competition (more on that event later) where I presented her with a beautiful native floral arrangement on behalf of all our Friends members.

I would also like to thank all 2014 -15 Friends Committee Members for their hard work over the past year. Most Committee members renominated for the 2015-16 Committee. While Deborah Hamilton did not stand again for the new Committee, she has agreed to continue to help with fund raising and social activities in the coming year. Jenny Liney will continue as our Herbarium Coordinator and will take on a non-voting role this year. Peter Hickman, who is one of the Friends representatives on the Visitor Centre Redevelopment Working Group, successfully nominated to join our Committee. Welcome Peter. See next page for the newly elected committee.



Newly elected President Victoria (right) thanking Heather with a beautiful native floral arrangement

Future editions of our Newsletter will include short profiles of Committee members so you can get to know us better.

Reports from the AGM

Heather Haughton updated the meeting on progress of the **Visitor Centre Redevelopment** project. Three representatives of Friends; Sue Cogger, Peter Hickman and Stewart Needham are on the working group alongside three Council representatives and two community members co-opted for their expertise: Stewart Whitlaw and Jenni Horder. An architect's design brief was prepared and Expressions of Interest were sought. Eleven architectural firms responded. Four have been shortlisted and a selection process is now underway.

The 2014-15 audited **Financial Report** was presented and Heather highlighted fund raising efforts during the financial year. More than 2000 people attended the Giant Plant Sale and Easter Fair which raised over \$11,000 in plant sales. Friends stalls raised around \$3,500. Sales from the 2015 Calendar, Christmas raffle, two Trivia nights and two Film nights raised approximately \$8,200. In addition, Friends organised stalls at community markets across the Shire, including a regular monthly spot at the Moruya Tuesday market. These stalls do a brisk trade in preserves and Heather thanked the cooks and those who donated fruit from their backyard trees. Friends allocated \$30,000 towards the barbeque upgrade and \$10,000 to the new carpark area. A further \$70,000 has been allocated towards the architectural fees associated with the design of the Visitor Centre. These funds have been set aside for expenditure in the 2015-16 financial year. Thank you to all Friends who were able to attend the AGM.

Victoria Callioni

Friend's Committee 2015-16

President Victoria Callioni 4471 7420

Treasurer Sue Cogger 4471 7452

Immediate Past President Heather Haughton 4471 3271

Secretary Chris Heazlewood 04 1753 2358

Vice-President Vacant

Committee

Fran Anderson 042758 0533

Joan George 4474 4244

Stewart Needham 4471 5718

Ken Foster 4472 3485

Peter Hickman 4472 6270

Gail Stevens 4471 3850



Fran Anderson, Chris Heazlewood, Joan George,
Stewart Needham, Ken Foster and Victoria Callioni

Meet Victoria Callioni (President)



After visiting the Gardens for the first time in 2010, I was delighted to find that my soon to be new home (my husband and I decided to retire to the Eurobodalla Coast) had such a wonderful community resource. We joined the Friends of ERBG that day, and once we moved to the coast in mid-2011, I got actively involved, both as a volunteer and as a Friend. My background is one of administration and management, but I love our natural environment – gardens, the bush and the beach.

I initially volunteered on meet and greet, which I still do, and then coordinated the meet and greet roster for 2 years. I joined the Friends' Committee in October 2011; became Vice-President in October 2013; and at our AGM in October this year, I was voted in as President.

This is an exciting time to be taking on this role. The Friends organisation will be celebrating its 30th birthday in 2016; the Friends Committee is working with Council and others on plans to redevelop our Gardens Visitor Centre; and of course we continue to support the work of the Gardens manager and the Gardens team (staff and volunteers) to improve and maintain this wonderful community facility. We have Friends who have supported the Gardens and the Friends organisation from the very beginning. Our facilities now attract not just the keen gardeners, bushwalkers and bird lovers, but also families who come to enjoy the play-space, picnic and barbeque areas. If we, as Friends of ERBG, can broaden our membership demographic – encourage new Friends of all ages to join – then I believe that the Gardens role as a valuable community and scientific resource will be assured. We can do this by (continuing to) holding interesting events, raising awareness and raising funds to support projects in the Gardens.



Gardens Manager's Report

What exactly is Council's role in the Eurobodalla Regional Botanic Gardens?

Some of the responses given to the recent Friends survey highlighted the fact that some Friends are unclear of the role and responsibilities of the Friends in relation to the operation of the Gardens. This article will attempt to briefly and broadly clarify what Eurobodalla Shire Council does for the ERBG.

The Eurobodalla Regional Botanic Gardens (ERBG) is a Eurobodalla Shire Council (ESC) owned and operated public facility.

This means that ESC is responsible for the management, maintenance and development of the entire site. This includes maintaining and abiding by the conditions set in the Occupation permit of the site allowed by Forestry Corporation. ESC also set the terms and conditions which our Café licensee must meet to operate at the Gardens, all fees and charges associated with site activities and policies such as no dogs or bikes.

Our small ESC staff of 3 fulltime, 1 apprentice and 1 casual, supervise and coordinate the 120 hands-on Council volunteers that work in the gardens, of which almost 60% are members of the Friends of ERBG. Some Botanic Gardens have conditions that do not allow volunteering if you are not a paid member of a Friends group. At the ERBG it is completely optional. This also means that if you want to support the Gardens by becoming a Friend you do not actually have to volunteer on site. This model means that just 1 organisation (ESC) can efficiently program and coordinate all onsite activities and leave important tasks such as fundraising, support and promotion to the Friends group.

Council is responsible for the strategic planning and direction of the ERBG and does this in consultation with its major partners – the Friends and Forestry Corporation. New major projects are managed by Project Working Groups that have been developed to include ESC, Friends and Community members with relevant expertise. These working groups replace the old management committee and sub committee structure and aim to have fresh teams dedicated to each individual project.

Education and environmental programs are developed by ESC via partnerships with other ESC departments including the Environment Team and external partners such as the Adult Ed Community College. Our own ERBG volunteers conduct guided walks almost on a weekly basis.

As Manager, Council employ me to oversee all of the above and to do this as efficiently as possible within an annual budget allocation and with the support of the Council Business Development team. Importantly, funds that are raised from ERBG activities such as plant sales, weddings, guided walks, room hire and rent all go back directly into the Gardens budget to help us to keep growing. My role is to work closely with the Friends, to help them help the Gardens. One of my greatest challenges is to ensure that the Gardens continue to have regional plant conservation and education as its core value and to keep recreation and fundraising complementary to this.



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The Eurobodalla Shire Council have been there supporting or providing funds for the Gardens for almost 30 years. What we see today is the result of a strong and continually growing community partnership that has produced an award winning Botanic Garden facility of world class standard, free for all to enjoy.

Please feel free anytime to contact me for any information about the Gardens and I would like to take this opportunity to sincerely wish all a safe and happy Christmas.

Michael Anlezark



Take a Closer Look...at a pair of frilly and fragrant heaths



Leucopogon parviflorus about 3

Walking into an invisible cloud of honey perfume on a still, sunny spring day may mean that there's a Leucopogon shrub nearby.

There are two species common to the Eurobodalla area :

Leucopogon parviflorus, the Coastal Bearded Heath, usually found growing on dunes and headlands, and its longer-leaved cousin Leucopogon lanceolatus, at home on hillsides and in woodlands.

Their tiny frilled 2-3 mm white flowers are almost identical -- Leucopogon parviflorus has flowers in dense clusters near the ends of branches while L. lanceolatus has more delicate elongated flower spikes along its branches.



Leucopogon lanceolatus inflorescence



**Leucopogon parviflorus (top) with
Leucopogon lanceolatus**

The main differences between the two are in leaf shape and perfume. L. parviflorus leaves are upright, shorter and stiffer, the perfume pleasant and slightly musky.

Leucopogon lanceolatus, on the other hand, has longer, softer leaves and a sweet, very strong fragrance of pure honey.

The fruit of the two Leucopogons also differ:

L. parviflorus produces round white berries while L. lanceolatus has red ovoid berries, but they must both be pretty popular tucker because both species self-seed readily and L. lanceolatus in particular would make a delightful unobtrusive addition to any garden.

Helen Moore

Weed of the season

Ehrharta erecta – Panic Veldt grass



Origin: South Africa

Family: Poaceae

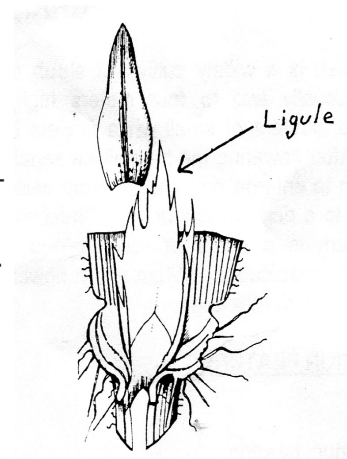


Ehrharta erecta

If you could assign an archetype to a plant, that of a junk yard dog springs to mind when describing Ehrharta. It is aggressive (a prolific seeder), tenacious (harder to remove all parts than most grasses) and plays dirty (seeds from a very early stage of development). But for some, like my son, it is a friend in his backyard along with a pair of Indian Mynas he affectionately calls Bob and Mary.

It is not my friend, nor is it a friend to bushland edges and almost everyone's garden where it invades and takes over garden beds, pot plants and lawns. It is certainly not a friend of the Gardens.

It is easy to recognise: a soft textured sprawling perennial grass which, if let grow through the seasons, can become densely tufted and will require a nudge from a mattock to remove. Generally it is a thin spindly plant, pale green – lime coloured – with a loose arching flower head typical of the Poaceae...think winter grass...with what I call a round bird seed head. The seeds are not spear shaped like Microlaena. There is reddish colouring at the base of the plant. An easy identification feature is the upright ragged ligule at the junction of the leaf sheath and the blade of the grass. It is a white membranous structure 2 – 4 mm long. The soft texture I mentioned earlier has an almost damp feeling to it, very different to the native grasses which generally feel stiff if not a little raspy.



It has a large seed set and grows strongly in spring but it is successful all year round. It loves disturbance, germinating well after a cool fire*, spraying or digging. It is very tolerant of a wide range of environmental conditions from sunny sandy dry dunes to shady wet creek lines and rainforest. It easily colonises those areas where water and nutrients have changed an otherwise stable ecological unit.

It can also darken in colour when growing in shady high nutrient conditions, be more difficult to identify and easily confused with Microlaena. Microlaena or Weeping Grass is darker green in colour and has a slightly abrasive feeling to touch. There is no membranous ligule; in its place it has a ring of tiny hairs, just visible to the eye.

Another native grass, which it can be confused with, is Entolasia or Right Angle Grass or Wiry Panic. It has a “bird seed” flowering head with leaves that are a much darker green colour which branch at a definite right angle off the stem unlike Ehrharta.

**a cool fire is one that is intentionally lit e.g. for hazard reduction, with temperatures and impact lower than wild fire.*

Continued next page...

Weed of the season

Ehrharta erecta – Panic Veldt grass.

(Continued from previous page)



It is easy to remove by cutting through the roots close to the base of the plant. But beware – it can drop a leaf stem laden with seeds while you are attempting removal so be careful to ensure all plant parts are taken away. Round-up 1:100 can work well but for large patches follow up by covering the area with jute matting and reseed or replant the area. This action gives about an eighteen month window of opportunity to get something else established and produce a new seed bank.

At the Gardens we have a number of areas where it is turning up. It is not a field yet but only vigilance and quick removal will stop it.

So how does a weed like this turn up in a pristine area like the Gardens? It travels in via birds, soil, mulch and water. In our case it has probably come in via soil in people's shoes, tyres, people bringing pots to the garden and in lesser quality mulches. Birds love it, especially little finches.



Ehrharta erecta

Ehrharta is a serious weed; if ignored it can become unstoppable. With so few Garden staff out in the field at present, it would not take too much for it to become a real problem which means constant weeding out...which means constant disturbance and so the cycle goes on.

It is an expensive weed, both of time and resources. I do urge everyone out and about in the Gardens to learn to recognise it and remove it, thoughtfully disposing of the seeds.

Jayne Clark

Celebration Dinner with the stars

It was a great night with a sumptuous dinner to celebrate winning Gold in the 2015 South Coast Tourism Awards for Ecotourism.

Past and present staff, volunteers and Friends were all acknowledged and congratulated at the *Dinner with the Stars* on October 1, 2015.



2015 Photo Competition and Calendar

In many ways the photographic exhibition and resulting calendar reflect the aims of Friends of ERBG. As a not-for-profit community organisation, Friends raise funds for capital works in the Gardens and support the Gardens mission statement: conservation, education, recreation. Over the past four years, for example, Friends contributed \$50,000 to the children's play space, \$20,400 to relocating and upgrading the workshop, and \$5,000 to improving volunteers' facilities in the propagation area. Currently money is being raised to provide new barbecue facilities and enlarge the car park to accommodate the increasing visitor numbers now edging towards

50,000 per year. But the biggest project underway is the renewal of the Visitors Centre, officially opened in 2001. We are looking forward to significantly improved meeting space, retail area and Herbarium.



Junior Section First Prize winner Jasmine Jarrett-Glasser with Mayor Lindsay Brown

The photographic competition, exhibition and calendar is the result of close collaboration between Friends and Eurobodalla Shire Council which manages the Gardens. It began in 2012 when the Eurobodalla Photographic Club joined forces with Friends of ERBG to produce the 2013 calendar. After two years we opened the competition to members of the public and added a Junior section and many of these entries are now of a very high standard. Members of the Eurobodalla Photographic Club continue to participate both in submitting entries and assisting with the setting up of the exhibition.



Adult Section First Prize winner, Dale Evans, receiving her award from Batemans Bay Soldiers Club President Paul Biddleston



People's Choice Award presented to Cammi Coen by Mayor Lindsay Brown



Ken Foster, Victoria Callioni and Gardens Manager Michael Anlezark at the awards night

The competition now attracts over 200 entries showcasing the Gardens in all their glory and many of the increasing number of visitors express amazement at the high standard. This year's new category *An Ant's Eye View* attracted some fascinating and imaginative works as photographers took up the challenge of highlighting details often missed by the casual observer.

The 2016 calendar is now on sale at the Gardens for \$10.

Friends Sharing Point



We'd like to create a space for Friends to share stories and fond memories – the things you love about the Gardens, the reason you joined Friends, the things you've learnt since joining, your handy hints.

We'd love to hear your stories

Or ask a question – we can call on the brains trust for an answer

Email: friends@erbg.org.au



Jo's story

I started volunteering at the Eurobodalla Native Botanic Gardens (as it was called in those days) in 1996 after a visit there with the Canberra Society for Growing Australian Plants. On my first day, then apprentice, Heidi, had me on my knees trying to dig holes in rock hard soil to plant pot bound Lomandras. It is a wonder I came back the next week, but I did, and found that early volunteer Jenny Vine, had told Heidi that I was an experienced propagator. From then to the present day I have been on the propagation team.

At that time propagation activities had moved from very primitive conditions to slightly less primitive. It was done in the tin shed built on one end of the concrete slab that was all that remained of the manager's house after the fire in 1994. Next door on one side was the tractor shed, across the breezeway on the other end was the workshop, John's office and a toilet which became flooded when it rained heavily. Bricks were put on the toilet floor to stand on if you did not happen to be wearing wellies.

The shed was freezing in winter and boiling in summer. Over the years it has been lined and insulated and we even have a heater now for cold mornings. The tractor shed became a lunch room with all mod cons.

In those days before the visitor centre was built, meeting and greeting was done in the car park. The little gazebo was the only shelter and we took our own chair and refreshments. Hours were from 10 to 4. It seemed a long day and a very lonely job.

I have enjoyed many collecting trips to rugged places collecting specimens for the herbarium and for propagation. Collecting trips still happen, but sadly I am too decrepit to go now.

It has been so interesting to have seen the Gardens evolve from very little to the thriving, beautiful place it is now. In closing I must pay tribute to the original manager, John Knight. With his vision and passion for plants he was the ideal person to establish ERBG and bring it safely through troublesome times when Council was divided and the Gardens were threatened with closure. And now the new manager, Michael Anlezark has picked up the gauntlet with just as much passion and vision for the future. Our gardens are in safe hands.

Jo Benyon

Themeda triandra: a grass for the changing climate

With climate change looming it seems prudent to investigate the capacities of our native plants to adapt to the forthcoming changes. This is an edited article by Naarilla Hirsch (*News of Friends of Grasslands* September-October 2015) describing research into the suitability of different strains of a grass species that might have potential for expanded plantings and revegetation. It is an account of a talk given by a CSIRO scientist (Robert Godfree) titled *Polyploidy and climate adaptation in Themeda australis* (now *T. triandra*),



one of our more recognisable and widespread grasses that occurs in grasslands, grassy woodlands, in pastures, and on road verges – probably better known to most of us as Kangaroo Grass.

What on earth is polyploidy? Well, all flora and fauna consist of cells that perform different functions. Embedded in each cell's nucleus are structures that control the function of that cell such as chromosomes: the number and type of which determines characteristics of any individual. Most animal species carry the standard haploid condition where the nucleus of a cell contains only one representative of each chromosome of the total chromosome complement. Many plant species, however, display a polyploid condition – three or more complete sets of chromosomes in its cell nuclei. In reproduction, polyploid

individuals may be produced either as a result of multiplication of chromosome sets from one species, or by combining sets of chromosomes from different species. This polyploidy has probably contributed significantly to the evolution of different species.

Advantages of polyploid plants over diploid are thought to include increased vigour and reproductive benefits. Godfree wanted to find the difference between diploid and tetraploid (four paired chromosomes) plants of *T. triandra* from NSW in their response to likely climate change events, in particular an increase in temperature of 2-3C and drought-like soil moisture levels. *T. triandra* diploid populations occur mainly in the near coastal regions of south-eastern Australia, while polyploid populations occur both in inland and coastal areas. Godfree collected specimens from three sites near Albury, Batemans Bay and the Sydney Basin with both diploid and tetraploid (i.e four complete sets) chromosomes. There was no visual difference between the two types.



With the plants established, Godfree subjected them to simulated higher temperatures and drought conditions – a four way treatment using a control, high temperature, low moisture, and a combination of both. He then measured plant characteristics such as growth, flowering, seed characters and seed production.

One interesting finding was that creating drought conditions (i.e. reducing soil moisture) increased the soil temperature. In other words, the soil is warmer when it is dry than when it is moist, irrespective of ambient temperature. Overall, the tetraploid plants averaged more stems per plant, more seeds per stem, improved seed viability and larger seeds than the diploid plants. The results confirm the theory and suggest that polyploidy in *T. triandra* has an advantage under drier and hotter conditions and that this advantage is maintained across different bioregions. The result could well have implications for seed selection for rehabilitation work in the future.

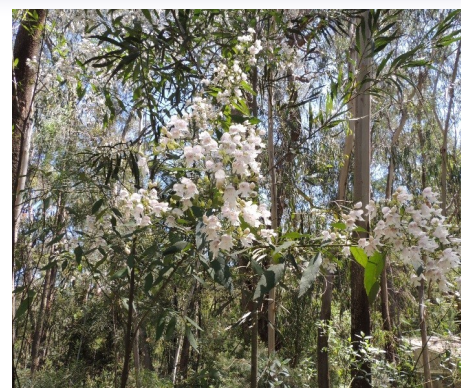
Jenny Liney

Photos from top: *Themeda triandra* Jackie Miles; *Themeda triandra* spikelet -Internet photo by Flickr; *Themeda triandra* on granite.

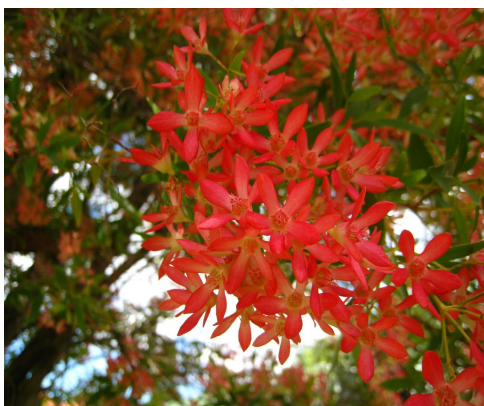
From the ERBG Plant Shop

This spring many of our regional native Australian plants have put on a spectacular display. Heading into summer we are seeing some different species in bloom and currently on offer in the shop are Victorian Christmas Bush (*Prostanthera lasianthos*) – a large shrub or small tree distributed across much of south eastern Australia. In late spring to early summer it displays masses of pinky white flowers, flowering later than most other mint bushes. *Prostanthera lasianthos* is a very adaptable, frost hardy shrub that can handle most soil types and conditions.

Throughout the year it maintains a very pleasant menthol fragrance.



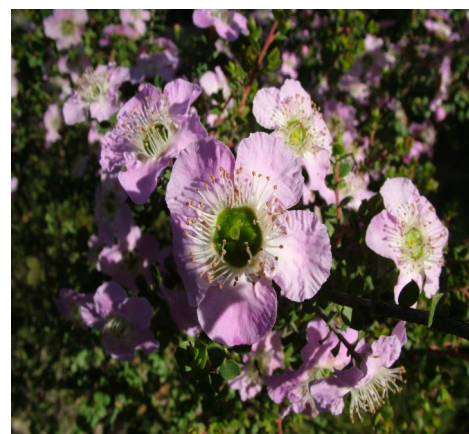
Victorian Christmas Bush
(*Prostanthera lasianthos*)



New South Wales Christmas bush
(*Ceratopetalum gummiferum*)

New South Wales Christmas bush (*Ceratopetalum gummiferum*) is a small tree (approx. 6 m) that occurs in coastal NSW. The flowers are an attractive creamy white and once they die the calyx enlarges and turns red and papery. This effect with the back drop of green foliage can look very much like a Christmas tree. This is a very reliable species and maintains a very good shape as a backyard specimen.

Other species that are looking great at the moment are *Leptospermum rotundifolium* (Round leaf Tea-tree),



Round leaf Tea-tree
(*Leptospermum rotundifolium*)



Blueberry Ash
(*Elaeocarpus reticulatus*)

Blueberry Ash (*Elaeocarpus reticulatus*)

and many of the wildflowers such as Sticky Everlasting (*Xerochrysum viscosum*), and Common Everlasting (*Chrysocephalum apiculatum*).



Common Everlasting
(*Chrysocephalum apiculatum*)

Like all our plants these species were collected and grown locally so they are adapted to the local conditions and are currently available through our plant shop.

We also offer gift vouchers for our plant shop which are a great gift idea.

Will Higginson