

## Winter 2010 No. 50

## .....promoting, preserving, protecting and rehabilitating native vegetation

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### **Committee Members:**

President: Anne Griffiths Vice-President: Joan Rodrigues Secretary: Mary Jolly Rupert Manners Treasurer: Committee members: Brian Griffiths Warner Wait Amanda Cole Susan Friend De Deegan Martin O'Bryan Gillian Shannon Editor : Visit our website and the Plant Propagation Database:

www.understorey-network.org.au

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### Coordinators' Report

It has been an exciting and busy few months at the Understorey Network office. Aurora Energy put out a request for environmental sponsorship project ideas and chose the Understorey Network's *Grow Wild* proposal as the finalist. *Grow Wild* will be an innovative three year partnership between the Understorey Network, Aurora and the Tasmanian community. It is designed to protect, preserve, promote and rehabilitate Tasmania's native vegetation, focussing on biodiverse native plantings compatible with power lines as well as revegetation using understorey species.

The Understorey Network grew over 3000 plants as part of the Victoria Bushfire Recovery Program and the 2009 Spring Growers Scheme. The plants were picked up in May. Big thanks to all members who grew for this and other projects and for yourselves! Growers have been sending in their feedback forms providing us with valuable information about germination rates and seed treatment techniques.

We are gearing up for the 2010 Spring Growers Scheme, cleaning last seasons seed at our regular seed saving workshops, held on the  $3^{rd}$ Wednesday of each month between 10am – 1pm at the Hobart Office, 148 Elizabeth Street. Come along and have a cup of tea and sort a few seeds if you can.

Oliver has been all over the state, from Flinders Island to South Arm, running plant propagation workshops. With this seasons workshops wrapping up, the focus is on keeping projects ticking over and starting new ones – including a germination trial for *Eucalyptus viminalis* on Bruny Island—vital for the 40 spotted pardalote habitat.

Members in the North and North West of the state have requested more events in these parts of Tasmania and planning is underway to organise some activities in the coming months.

Included in this Newsletter is the annual member's subscription form and the registration form for the 2010 Growers' Scheme. Please fill them in and get them back to us as soon as you can.

Natalie Holman and Oliver Strutt

## SOUTH SISTER WALK



Network invited members of the public to join including the threatened Velvet Worm. them on a Walk and Talk at the South Sister. St of the Understorey Network.

26 people gathered outside the St Marys Town break in the sunshine for all the group to discuss Hall at 9am to jump aboard the Yo-Yo bus, driven how they were enjoying the walk and what to by Larry, for the trip up to the Sister. On climbing expect as we approached the summit. the road towards the South Sister the mist cleared and the Yo-Yo bus and a couple of tag A search was made for the Velvet Worm in what along cars popped out into a glorious sunny looked to be a likely spot but sadly on this day we morning where the South Sister stood beckoning did not find even one! As we returned along the to the group.

Ashley Mason who described the area as one never climbed the South Sister before were Sclerophyll Forest and also Temperate Rainforest tower. They say you can see the islands on a including sub-alpine plants around the 832m good day, and this REALLY was a good day, summit. The area is rich in natural history, with crystal clear blue skies and fantastic visibility.

On Sunday 16th May 2010 the Understorey flora and fauna dating back to ancient times

Marvs, with Ashlev Mason a local horticulturalist Ashlev took us along a gradually climbing bush and member of the Save our Sister group leading track and we stopped at various intervals to the activity! Funding for the Walk and Talk had discuss the changing landscapes around us and been obtained through the NRM North Caring For the way in which the bush is regenerating Country small grant program under the auspices following the 2007 bushfires. Plants of interest were pointed out and many questions were asked by group members. Morning tea was catered by On a very cold and misty Sunday morning about the Happy Belly Deli and provided a welcome

track to the road, some members chose to walk back down to the Yo-Yo bus whilst others The walk started with a brief introduction by decided to climb to the summit. Those who had which contained a unique biodiversity which astounded by the natural beauty of the summit included healthy pockets of both Wet and Dry area and the wonderful views from the lookout The morning had been planned to finish at mid- growing plants to assist local land owners with day, however it was 1.30pm before we were regeneration work as well as information climbing back onto the Yo-Yo bus for the drive to sessions and activities such as this Walk and St Marys. Everyone seemed very, very pleased with the morning even if a tad tired after a slightly strenuous walk in parts.

The Understorey Network is always looking for new members to undertake its core activity of

Talk

More information can be obtained from Janet Drummond on 6372 2851 or Alison Hugo on 0488 677 727.

## Janet Drummond

Propagation Pointers		
Family Name	e: Poaceae	
Species Nam	<b>ne:</b> Themeda triandra	
Common Name: Kangaroo Grass		
Themeda grows in a large area over SE Australia including Tasmania, growing from coastal to inland areas in a wide range of soils and is very tolerant to heavy frosts. It tends to dry off through the winter months but grows well during the summer as it needs very little rain. A wonderful grass for all our native animals. It is quite a decorative plant when the seed heads develop during late spring and summer.		
Seed treatment	No treatment needed but the seed should be collected usually in January when ripe Store in a dry place for a couple of months to mature.	
Propagation notes	Just sow in a good native plant soil mix with a light covering of coarse sand over the seed.	
Seed sowing months	Best sown late autumn (April /May) as the seed likes to lay dormant before germinating although some success can be achieved with spring sowing.	
Growers, if you have propagated this species and can further add to the information provided we would very much appreciate hearing from you. Please email us at <u>understorey@gmail.com</u> And if you have a specific request for 'propagation pointers' to feature in the next edition, please let us know and we will do our best to include it.		
Committee Meeting Dates The USN would like to invite interested members to attend our monthly committee meetings. If you are keen to find out more about USN projects, workshops, field days the nursery and garden and how you could be involved in any of these activities please come to one of our committee meetings. Meeting dates are July 12th, August 9th, September 13th at 5.00pm at the USN office 148 Elizabeth Street Hobart. We look forward to seeing you there.		

# SWANSEA KIDSCARE FOR TASMANIAN COASTS

**Eloise Woolnough** 



Monday 12<sup>th</sup> April 2010 was the first day back at school for Swansea Primary students after the Easter Break. While easing back into the whole learning / school work routine they participated in a seed planting workshop.

Oliver Strutt from 'The Understorey Network' and Eloise Woolnough from 'Catchments to Coasts' along with local residents Terri Hall, Sue Bull and Jeni Crawford assisted 66 students from Prep to Grade 6.





## How to propagate plants:

Step One: Fill tube with potting mix to 1cm from the top Step Two: Water the soil Step Three: Place seeds on soil Step Four: Cover seeds with fine gravel Step Five: Watch them grow!!

The only trick here was to remove air pockets by tapping the container on the bench. Do not press the soil down at all. There is no need to press the seeds in either. The gravel acts as a weight and mulch. Simple once you know how!!

All the tubes were labelled and dated, then stacked together in a box and placed in the 'Fairy Garden'. They will need watering twice a week at present. Less than this if we get rain! They will probably need a daily watering during summer.

Sessions such as this build on the student's prior experience and knowledge and assist them to view caring for our coasts as a simple and fun activity. Of course we are hoping that they will see for themselves that their small actions and those small seeds can make something big.

This activity followed on from the "Growing Native Plants for Tasmanian Coasts" workshop at Sue Bull's property at Dolphin Sands on Sunday 11<sup>th</sup> April. Techniques on seed collection and growing native plants from cuttings were demonstrated by the Understorey Network.

## What did the school children plant?

Drooping Sheoak, Wallaby Grass, Manuka, Clematis, Dusty Daisy Bush.

### How many tubes are there?

About 145 tubes in 2 boxes. Each tube has several seeds.

## What is the Understorey Network?

This is a group of individuals around Tasmania, promoting the protection of existing native vegetation, and the use of local native understorey in revegetation. Swansea Primary School and the Dolphin Sands Rate Payers Association are growing plants for areas affected by the Dolphin Sands bushfire.

## What is Catchments to Coasts?

Catchments to Coasts is a partnership between Glamorgan Spring Bay Council, NRM South and the Glamorgan Spring Bay NRM Committee that aims to assist all sectors of the community to work together and share responsibility for natural resource management.

What did the children have to say about the morning?

Prep – Fionn "Can I have another turn?"

Grade One - Dylan "So Cool"

Grade Two - Lottie "It was fun to plant the trees"

Grade Three - Taylah "That was fun"

Grade Four - Tameka "Awesome"

Grade Five – Matthew "Can I keep the gloves?"

Grade Six - Jemma "Thanks for morning tea"

## What will happen to the seeds when they grow up?



Students and community members will be assisted by 'Catchments To Coasts' to plant seedlings out on public land in approximately one year's time. Plantings will be in places suitable for the seedlings that grow naturally in areas such as Dolphin Sands public accesses and coastal sites in and around Swansea. The plants will be used for dune stabilisation, penguin habitat, erosion control and increased plant biodiversity.

## Can I help?

If you would like to assist with next years planting or with other activities please contact Eloise on

6256 5058 or elle@freycinet.tas.gov.au



The kids from Strahan Primary School loved getting their hands dirty!

# KidsCare for Tasmanian Coasts

**An Understorey Network Project** 

This Australian Government funded project connects school students with their local coastal community group by engaging students in growing native plants from seeds collected by the community group. In the past few months, workshops for KidsCare have been conducted across the state, including Flinders Island, Dolphin Sands, Swansea. South Arm. Ulverstone and Strahan. Over 100 students and numerous Coastcare groups were involved. Propagation has been from both seeds, when available, and cuttings. Species propagated include Rhagodia candolleana (coastal salt bush), Correa alba (white correa) Correa reflexa (common correa), Allocasuarina verticillata (drooping sheoak) and Carpobrotus rossii (native pigface). The schools and in some cases the community group, are looking after the plants until they go in the ground next autumn (see article p.4). For more information about this project, or to get involved, please contact Natalie.

Natalie Holman



The Ulverstone High Sustainability Group Leaders are Cally Morton & Nathan Gillam

## ULVERSTONE HIGH KIDSCARE FOR TASMANIA COASTS

In March 2010 Oliver Strutt from the Understory Network came to Ulverstone High to teach us about seed collection and planting. We visited the local beach. Buttons Creek, to collect native seeds and cuttings. He taught us different techniques of seed collection. We returned to school and he showed us how to plant and care for the different types of seeds and cuttings. Since Oliver's visit we have been looking after the seedlings in the school hothouse. When they are mature next year's Sustainability Group members will plant them back in the area where we collected the seeds and cuttings. We learnt a great deal from Oliver's visit and we would also like to thank local Landcare member, Jill Roberts, for her assistance. We look forward to working with the Understorey Network again soon and continuing our rehabilitation projects.

Cally Morton and Nathan Gillam

# A SPLASH OF GREEN

Following the catastrophic bushfires in Victoria on 9<sup>th</sup> February 2009, the Victorian Landcare community rallied together and organised the propagation and distribution of thousands of plants. Keen to help, Ruth Mollison arranged to have seed sent to Tasmania, and with the help of over 20 growers, including schools, the Understorey Network grew thousands of plants.

'The total land size burnt on Black Saturday was approximately 352 686 hectares, which is equivalent to Melbourne and Sydney metropolitan areas combined'... (2009) **Firestorm Black Saturdays Tragedy** Glenvale School Lilydale.

Countless native birds. animals and invertebrates died in the blaze and their habitat was destroyed. Revegetating some of the areas devastated by the bushfire is an important part of the recovery plan. Around 28,000 plants have already been grown, with Understorey Network members contributing over 3000 plants. Landcare co-ordinator, Janet Hagen, who travelled from Victoria to pick up the tubestock said residents who received plants were very happy with their quality. Six hundred and forty of the Tasmanian grown plants were put in the ground at Marysville by 25 employees from the Body Shop, with the remaining to be planted this month. People in Marysville were extremely impressed that their plants had been grown in Tasmania. The project received significant media coverage both in Tasmania and Victoria. Janet presented the USN with a copy of the book Firestorm Black Saturdays Tragedy with 100% of the profits going to CFA's for essential equipment purchases (7 fire trucks were lost in the blaze).

Thanks again to the Growers who participated in the scheme and to Bob Sievers who volunteered his house to be used as a depot in the North. Your plants are likely to be in the ground now, providing a splash of green in the



Natalie Holman

# **OUR LITTLE POLLEN PORTERS**

### by Phil Watson

## PART 2

This is the second part of the third article on insect pollination. Part One featured in the "Autumn Newsletter". In this part Phil looks at beetles, butterflies and moths.

### **BEETLES LOOK FOR LANDING PLATFORMS**

Although beetles may have pollinated some of the very earliest of flowers, their contributions are mostly limited to species within the Myrtle and Daisy families (Myrtaceae and Asteraceae). Most beetle pollinated plants present attractive, robust landing platforms on which the beetles can randomly stagger around transferring pollen from their hairy lower legs and body parts. The flowers tend to be brightly coloured with shallow nectaries, held erect with short sturdy exposed organs. The daisy family's broad tightly clustered flower heads (capitulum) are ideal landing sites. They are sufficiently robust to handle the vigorous buffeting which beetles mete out. Some flowers even have ornamental beetle-like markings to lure passing mates with the promise of frivolity which inadvertantly services the flowers needs. Many beetles which act as pollen porters include the distinctive wasp-like and hairy longicorn beetles (Cerambycidae) and small nectar scarab and green scarab beetles (family Scarabaeidae). Others are more prone to eat and damage the leaves and flowers rather than pollinate them, particularly the acacia and eucalyptus leaf beetles (Chrysomelidae) which decimate wattles and gums. The beautiful blue metallic flea beetle plaques Rosaceae such as buzzies (Acaena sp.) The myrtle family (gums, tea-trees, heath-myrtles and paperbarks) benefit from the adults of nectar feeders such as the brightly coloured jewel beetles (family Buprestidae) and the small flattened, soft-bodied plague soldier beetles (family Cantharidae).

In the daisy family, the gregarious hairy clerid beetles (family *Cleridae*), the pintail beetles (*Mordellidae*) and click beetles



(*Elateridae*) are commonly observed on the bright yellow flowering daisies including billybuttons (*Craspedia glauca* and *C. coolaminica*), dollybushes (*Cassinia aculeata*) and everlasting bushes (*Ozothamnus* spp.) where they feed on the pollen or gather to mate.

Clerid beetle pollinating a gum

### **BUTTERFLIES AND MOTHS**

#### Moths are the cryptic night porters

Most of the 21,000 Australian moths (1400 Tasmanian) are nocturnal, protecting themselves from bird predation by assuming a camouflaged resting stage with cryptic coloured wings flattened to eliminate shadows. The life histories and structures of moth pollinated plants are adapted to the needs of the moths. They remain inconspicuous or even closed during the day. The plants usually have white or pale colours and little scent. By early evening the plants perform majestic transformations by presenting luminescent colour patterns and wafting out sweet perfumes. Armed with feathery antennae and hairy bodies the moths respond in their roles as

pollen porters, in the hope they don't fall victim to the voracious bats that locate them with their sonar. Some plant families have co-

evolved other features to assist the moths, for example clusters of easily accessible flower spikes on the branch tips or stamens exposed above the necks of the tubular flowers to improve pollen dusting whilst their proboscises are probing the deep nectaries. Plants with these features include the smelly, stinking boronia *Boronia anemonifolia* and the delicate candle-like flowers of the five indigenous candle species including creamy and yellow candles (*Stackhousia monogyna* and *S. viminea*). Weed species such as the strongly scented cottage garden favourite, evening jessamine, (*Cestrum nocturnum*) also attract endemic moths such as the litter moth (*Crocanthes* sp.).

Once dawn appears the moths retire and the plants revert to their neutral day time forms. Other indigenous examples include the three delicately scented members of the mallow family (*Malvaceae*) namely the riparian, Tasmanian currajong (*Astertrichion discolour*) the fragrant hempbush (*Gynatrix pulchella*) and the salt-marsh loving thorny saltmallow (*Lawrencia spicata*). Finally the aptly named native cranberry moth (*Poecilasthena* sp.) enjoys the nectar from, your guessed it, the native cranberry (*Astroloma humisifusum*) and other epacrids whilst the cute satin green forester (*Pollanisus* sp.) pollinates the guinea flower (*Hibbertia* sp.).

#### Butterflies are solar powered pollinators

Butterflies are warmth loving insects, requiring protected sunny sites for basking in order to bring their body temperatures well above the ambient air temperatures before they can go about there pollination activities. Butterflies possess a straw-like proboscis for sucking up deep pools of nectar within the flowers corolla. Their larvae on the other hand are destructive, commonly feeding on flower buds or foliage at night and retreating in the day to looped shelters of tied leaves amongst tussocks of native grass and sedges. Specific flowers have adapted to meet the butterflies' needs by forming long thin corollas with prominently exserted anthers and stigmas as seen in the rice-flowers *Pimelea* sp,. Other species such as those of the daisy family are less adapted to butterfly pollination as they are visited by many other insects as well.

#### Butterflies seek their favoured flowers

Many flowers benefit from the pollination services of a limited range of highly adapted nectar seeking butterflies. For example the rapid and erratic flying, "Skippers and Darts" (family *Hesperiidae*) which include the white grass dart and the choastola skipper (*Taractrocera papyria* and *Antipoda chaostola*) specifically target the rice-flowers *Pimelea* sp., groundsels *Senecio* spp. and everlastings *Chrysocephalum* spp.

The spectacular, Macleay's Swallowtail, (*Graphium macleayanum*) is the one Tasmanian species from the family *Papilionidae*. It has adapted to feed exclusively on nectar from the cherry riceflower and tall riceflower (*Pimelea drupacea and P. ligustrina*). These are usually found on moist forest margins and roadsides. The larvae of these Swallowtails target the nearby sassafras leaves (*Atherosperma moschatum*).

The Wanderers and Browns (family *Nymphalidae*) which display spiralling and buffeting flight behaviour to defend their territory, often seek out nectar sources which contain toxic bioactive ingredients. This feature, along with their bold colour patterns and eyespots on their wings helps protect them from bird predation. The common brown and shouldered brown (*Heteronympha merope* and *H. penelope*) favours the prolific nectar-bearing flowers of native box *Bursaria spinosa*, whilst the earliest emerging spring butterfly, the Hobart brown (*Argynnina hobartia*) provides pollination services to the dwarf

riceflower and slender riceflower, (*Pimelea humilis* and *P. linifolia*). Not to be overlooked is the wind born spring migrant, the Australia painted lady (*Vanessa kershawi*), which pollinates the weedy cape weed (*Arctotheca calendula*) and curling everlasting (*Helichrysum scorpioides*).



Finally the family of "Blues, Coppers and Hair Streaks" (*Lycaenidae*) butterflies have a mutually beneficial larval stage with ants. Ants protect them in reward for secretions of honey dew. The adults service the pea and native heath families (*Fabaceae* and *Epacridaceae*). Clovers and lucerne (*Trifolium* sp. and *Medicago* sp.) are favourites of the delightful pale

blue coloured, common grass blue (*Zizina labradus*) whilst tree broomheath (*Monotoca elliptica*) is favoured by the rare small Mathew's Blue (*Neolucia mathewi*).

### Alpine Pollinators are under threat

Visitors to alpine areas admire the magnificent forms of Tasmania's five species of cushion plants and numerous matforming plants. They are all characterised by closely packed erect stems supporting whorls of fleshy leaves clumped tightly together giving the appearance of green cushions. Flowers form at the tips resulting in raised mats of tiny white blooms. These adaptations for surviving the torrid alpine climate also ensure they are attractive and accessible to the tiny alpine pollen porters, most of which are hardly visible to the naked eye. Examples include the sage cushion plant *Pterygopappus lawrenci*, the diminutive snow cushion plant (*Donatia novae zelandiae*) and the large bolster heath forming Tasmanian cushion plant *Abrotenella forsteroides*.

Interestingly, the trigger plant family also has a range of alpine adapted members (*Phyllachne* sp., *Oreostylidium* sp., and

*Forstera* sp.) They are less specialised than the trigger plants, with no labellum and only an inactive column, but manage to compete successfully for insect pollination services.

Cold tolerant moths and butterflies also provide valuable pollination services during summer whilst still being able to survive the vagaries of an alpine climate. For example, the delightful emerald moth (*Chlorocoma rhodothrix*) thrives in the alpine regions seeking out tea tree (*Leptospemum* spp.) for protection and nectar. The meandering low flying leprea brown butterfly (*Nesoxenica leprea*) actively seeks out the prostrate alpine heath *Pentachondra pumila*, whilst the mountain blue (*Neolucia hobartensis*) is the most alpine-adapted butterfly in Australia. It targets alpine buttons *Cotula alpina*, mountain daisies, *Erigeron* spp. and the snow daisies *Celmisia* spp. To protect itself from predation the undersides of its wings blend well with the grey lichens and dead twigs common in alpine areas.

Some butterflies, including the *Hesperilla* skippers are known as local altitudinal migrants travelling to mountain tops for mating and nectar bearing daisy flowers such as the snow everlasting *Helichrysum milliganii* and grassland paper daisy *Leucochrysum albicans*, before returning to lower altitudes to breed.

#### Conclusion

These unheralded pollinators could be described as "keystone species" given the iconic and critical pollination roles they perform throughout our woodlands, forests and non forested communities. With climate change likely to impact on highly tuned relationships and pollination regimes within warming alpine refuges, a rapid decline in species diversity can be predicted. Irrespective of how inconsequential or insignificant species appear, their roles in maintaining the environments checks and balances need to be understood. To capture these many unknowns, bringing pollination ecology into the mainstream of science seems timely.

## **PRESIDENT'S REPORT**

It's always exciting (and a relief!) to hand over the plants you have tended for the last six months, and it was especially so on the 9<sup>th</sup> and 10<sup>th</sup> of May when we were able to fill a trailer with lovely healthy plants to help regenerate some of the areas burned out in the Victorian bushfires last year. The plants looked great and all you growers who nurtured them should feel very proud.

There was some good publicity from ABC and Southern Cross television at Tolosa Park on the Sunday as well as a half-page article in the Mercury. We are hopeful that we may be able to grow more plants for Victoria again with this year's Growers' Scheme.

Thank you to those growers who have returned their **feed-back forms**. I would like to remind those of you who have not yet returned them to please do so soon, so that the results of 2009-10 can be collated. Next year we will also be asking those who have received plants to let us know how they fare after planting. If anyone has some 'before and after' photos we would love to have copies.

The membership renewal forms are included with this newsletter. Thanks to all of those who will renew, your support is greatly appreciated and very necessary. Please if any of your details, such as address or email address have changed, highlight this on your form. Also make sure that email addresses are written very clearly, any mistake and we cannot contact you by email, and that is very frustrating for all of us.

We would really like to know just what you would like from the USN. The members are our most important asset and we need to know if we are doing what you would like us to do. Please let us know where we have succeeded, and just as importantly, where we have failed.

Keep warm through the winter, and I hope you're looking forward to another growing season this spring.

## Anne Griffiths

APOLOGIES: We wish to apologise to Janet Drummond who wrote the article on the N.E. USN Branch in the last issue (No. 49). Janet's article was inadvertently attributed to Alison Hugo.