



Understorey Network News

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Vice-President: Joan Rodrigues
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Treasurer: Rupert Manners
Committee members: Brian Griffiths, Liz Quin,
Peter McGlone, Warner Wait, Kris Schaffer,
Angela Jackson.

Visit our website and Plant Propagation Database at:

www.understorey-network.org.au

Project Manager's Report

It's time to get your seeds into tubes, if you haven't already done so! This round of the Growers Scheme has several interesting projects requesting plants from volunteer growers. For example, growers are propagating plants for the large grazing farm 'Murrayfields', owned by the aboriginal community and located on Bruny Island. Other project sites include a penguin rookery on the Derwent Estuary and Pipe Clay Lagoon in the north of the state.

Growing for projects is becoming a popular choice for members—please pass on any suggestions of suitable revegetation projects that are happening in your area, as we need sites across the state, to match up with local growers.

The feedback I have received from the Autumn growing season is that seeds were very slow germinating, although some species, notably lilies and buzzies, grew well. With this in mind, the next Autumn growing season will be focused on cuttings for 'specialist' needs, such as salt-bush for coastal or saline sites, or division of sedges/rushes for wetlands etc. There will also be a small range of winter good germinators.

The seedbank has again been depleted—which is a good thing as it means the seeds are being turned over quickly. However Please collect more seed this summer—we are always in need of more seed. The pickings look a bit slimmer this year, with the dry winter—there are noticeably fewer daisies and orchids appearing.

As its coming up to the silly season -I would like to wish all members a jolly Christmas and a Happy seed picking New Year!

Ruth Mollison, Project Manager



Australian Government

The Understorey Network would like to acknowledge the support of NRM South, the Tasmanian Government and the Australian Government.

A letter from the USN Management Committee President

It is hard to believe that a quarter of the year has passed since the AGM. By now the 67 members who are growing plants for either projects or other members have more than 10,000 prospective plants underway. These will mostly be ready to plant out next autumn. It is important to remember that the bulk of our funding comes from the NRM regions and the Threatened Species Unit for special revegetation and habitat projects. We are not in competition with nurseries for the provision of plants for commercial landscaping. That is not our brief.

Remember too that now the USN has Deductible Grant Recipient (DGR) status any donations (but not subscriptions) you give to the Network are tax deductible. So don't throw out those receipts! Meanwhile the committee is preparing a business plan to assist with broadening our fund-raising opportunities.

Finally I would like to wish you all a happy and peaceful Christmas, and a 2007 full of whatever you would wish. On behalf of the committee I thank you for your continuing support of the USN, with the belief that what we do is worthwhile and important, in passing on to the next generation some hope for a sustainable future. Anne Griffiths, President

Understories Brighton Community Nursery

Members of the Bridgewater community recently participated in a propagation session at the Brighton Community Nursery. Eight boxes of tubes including woolly teatree, silver tussock grass, blue flax lilly and sagg, were planted for council natural resource management projects. The eight participants bleached the pots, packed boxes with tubes and made up labels before sowing the seeds and covering them with gravel.

With so many helping hands, we were able to finish in time for an early barbecue lunch, kindly organized by BURP (Bridgewater Urban Renewal Program). Several workers at the nursery will keep an eye on the boxes, and water them when necessary.

One of the participants, Mary is also growing 250 plants in her backyard for the Tasman municipality. Mary is a first time grower but as she is a retired nursery worker I'm sure she will be able to coax her seeds out of their tubes with ease.

A Summary of The Understorey Network Strategy:

The Understorey Network is now ten years old - an appropriate time to review our organization and draft a strategy to guide us for the next ten years. The Management committee, project manager and members have all had an opportunity to provide input and suggestions into a strategy. Developing this strategy has enabled us to outline a vision, define our aspirations, identify barriers and followup with actions. It will give us a means of measuring progress and a focus to review our failures and successes. Here is a sample of key elements of the strategy.

Our vision is to be a key service provider for vegetation technical support and resources while continuing to be a grass roots community organisation.

Our Aspirations are to have A supported and active membership, and to:

Achieve identifiable landscape and vegetation change.

Be a key provider of accessible accurate information and resources on vegetation management.

Have influential links and communication with the wider natural resource management network.

Have Ongoing financial stability.

A full version of the strategy is available on request from Ruth.

Understorey to keep Noisy Miners at bay

Noisy miners are Australian honeyeaters that naturally occur in Tasmania as well as other states. They are an aggressive species that can dominate bush remnants, excluding small birds, and they are increasing in abundance in eastern Australia. They favour forest edges, open forest/woodland and degraded bush (e.g., where understorey has been removed, remnants smaller than 10 ha and public parks). Because of their aggressiveness (they have even been seen to attack a small bird flying 50 m above their patch!), noisy miners are seen as a threat to the survival of small woodland birds within their range. Some eucalypt dieback has also been related to noisy miner dominance, as the lack of small birds means that insects can increase populations and defoliate the trees.

Recent research (Hastings & Beattie, 2006) has focussed on revegetation sites and what factors encourage noisy miners compared with other native birds. Revegetation is often aimed at encouraging native wildlife and providing wildlife corridors linking remnants, but if newly revegetated areas become dominated by noisy miners, the benefits may be limited.

The research found that noisy miners can take up residence in a revegetation site, and that they can exclude small birds. The good news is that there are ways to discourage noisy miners and encourage other species. Noisy miners did not occur in sites where:

- at least 20% of the site was covered by shrubby understorey
- less than 85% of the canopy trees were eucalypt, and the remaining trees were bipinnate acacias (i.e. wattles with "feathery" leaves, such as silver wattles and black wattles).

Sites with a mix of eucalypts and bipinnate wattles in the canopy were the ones most favoured by birds (other than noisy miners).

It seems that wattles are not a good food source for noisy miners, but are desirable for small birds such as thornbills and give them somewhere to hide from the miners.

A more open structure would provide little refuge for small birds to hide from the miners, and nectar bearing shrubs such as grevilleas and callistemons would provide too much good food for the miners. It is possible that noisy miners avoid sites with a proportion of trees or shrubs with dense foliage and low food benefit, because to dominate them would take too much energy for a low return.

Hopefully this research will encourage revegetators, farmers and plantation managers to include understorey plants and bipinnate wattles (such as the under-valued silver wattle) in any plantings.

It is best to imitate all aspects of nearby healthy natural remnants when planning revegetation, as much as is possible considering the conditions of the site. (For instance this article has not mentioned the values of native grasses and sags for butterflies and other fauna.) There are many benefits of having all the components of a natural ecosystem, which science is still only beginning to uncover. And of course noisy miners also have their place. With this information we hope to encourage other birds to keep theirs!

Hastings, R.A. and Beattie, A.J. (2006) - Stop the bullying in the corridors: Can including shrubs make your revegetation more Noisy Miner free? *Ecological Management & Restoration*, vol.7 no.2, pp.105- 112

Summarised by Anna Povey.

Threatened Butterflies of Tasmania

Synopsis of a Presentation by Dr Phil Bell, (Zoologist, Threatened Species Section, DPIW) at the AGM of the Understorey Network 2006.

Phil's talk was accompanied by a very interesting variety of images showing examples of typical habitat, caterpillars feeding and pupae sheltering on the understorey plants vital for their survival and also the monitoring activities of his department.

Introduction:

There are less than 40 species of butterflies native to Tasmania and these belong to four major groups.

Skippers (Family: Hesperidae) 10 species, 2 of which are listed as Endangered.

Browns (Family: Nymphalidae) 14 species, 1 of which is listed as Vulnerable.

Blues (Family: Lycaenidae) 9 species, 2 of which are listed. (1 Rare)

Swallowtails (Family: Papilionidae) 1 species – not listed as threatened.

Whites (Family: Pieridae) are introduced.

This synopsis presents brief notes on distribution, habitat, life history and threats in relation to four of the five listed species.

1. The Skippers

All skippers have an erratic flight pattern

Chaostola skipper (*Antipodia chaostola leucophaea* – Endangered)

Distribution: Restricted to a few localities on the east coast including Freycinet, Little Swanport, Hope Hole Bottom, Hobart, Kingston and Coningham. (on the wing in open eucalypt forests from mid-October to mid-December)

Habitat: Food plant *Gahnia radula*, *G. microstachya*, *G. grandis* Dry sedgey or heathy forest/woodland on east coast with the above food plants in the understorey. Forest communities include *E. amygdalina* on sandstone, *E. tenuiramis* on granite, the latter especially inland.

Life history: Chaostola skipper has a two year

life-cycle. Larva forms shelter by joining leaves of its food plant with silk and it pupates in the shelter.

A distinguishing feature is that the Chaostola skipper forms the opening of its shelter tube at the bottom – all others have the entry at the top of the tube.

Threats: the main threats to this butterfly are: habitat clearance for agriculture, residential development and plantations, grazing, destruction of its food plant *Gahnia radula* during forest harvesting operations and roading, and habitat fragmentation.

Marrawah skipper (*Oreisplanus munionga larana* – Endangered)

Distribution: Coastal between Temma and Woolnorth, Welcome Swamp and Welcome River and sighted at Penguin in 2005, indicating that there may be additional potential habitat on the NW Coast and islands.

(on the wing in a very small area around Marrawah in the far north-west of Tasmania mid-January to mid-February.)

Habitat: Food plant *Carex appressa*

Lives in *Carex appressa* dominated sedgeland and grassy sedgeland; *Melaleuca ericifolia* scrub; *M. ericifolia* forest but also wet Eucalypt forest (tall *E. obliqua*/wet *E. brookeriana*) with groundcover dominated by *C. appressa*.

Life history: Larvae form tube shelters with *Carex* leaves and pupation takes 14-18 days.

Threats: Grazing by cattle which eat the food plant and trample habitat, land clearance, and, as well as direct destruction of habitat, indirect effects such as changes in drainage patterns, insecticides etc. Fire can kill an entire population and in the absence of disturbance *Carex* habitat is often lost.

2. The Blues

The Blues can be blue, brown or orange in colour and are usually small in size. There are several subspecies, some showing strong regional differences.

The two species on the Threatened list are:
Tasmanian hairstreak (South Coast variety)
(*Pseudalmenus chlorinda myrsilus* - Rare)

Distribution: SE Tasmania :Forestier and Tasman Peninsulas, opposite Maria Island. Cape Frederick Hendrick, Coal Mine Hill, Lime Bay, Mount Stewart, Saltwater River and Rheban Spit.

Habitat: At Cape Frederick Hendrick, in coastal *E. amygdalina* forest and at Lime Bay, Saltwater River and Rheban Spit, in *E. viminalis* coastal shrubby forest There is potential habitat at Seven Mile Beach, Marion Bay and Maria Island.

Life history: Food plants are *Acacia dealbata*, *A. mearnsii* and *A. melanoxylon* while its pupation/larval site is under the bark of nearby mature *E. viminalis*.

A Special feature is it's complex life cycle involving the wattles, *E. viminalis* and a small ant. There is an obligatory relationship between the caterpillar of this butterfly and a small black ant called *Anonychomyrma biconvexa*

The eggs are laid on twigs of silver wattle. Caterpillars feed by day on leaves and can be in aggregations. They will pupate on blackwood in cracks or crevices of rough bark but generally on silver wattle, under loose bark on nearby white gum, but also under stones, hollow branches or curled leaves on the ground. Their choice of pupation site is influenced by the presence of attendant ants. Larvae develop over late spring, early summer (about 1 month). The pupae are dormant over winter with adults emerging in the following spring.

Threats: Clearing of known and potential habitat; repeated firing at high frequency; fragmentation of populations; disturbance of one or more links in the complex life cycle.

There were 42 sites recorded in 1977 (Couchman) and by 1987 65% of those were locally extinct and 24% at risk (Prince)

The Chequered Blue is also on the Threatened species list and can be found in saltmarsh

at Cambridge Airport, Hobart and has also been recorded on Flinders Island.

3. The Browns

Ptunarra brown (*Oreixenica ptunarra* - Vulnerable)

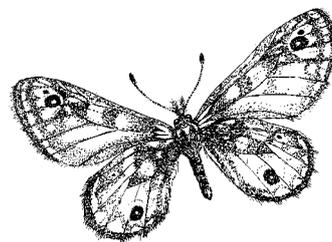
There are several other species of brown very easily confused with this Vulnerable species.

Distribution: Eastern and Southern Midlands, Central Highlands and Northwest Plains from 400-1000m but mainly above 600m.

Habitat: Food plant is *Poa* spp. Lives in *Poa* grasslands and grassy sedgeland (*Gymnoschoenus/Lepidosperma*); grassy *Poa* shrubland with *Hakea microcarpa/Richea acerosa* and grassy *Poa* woodland and forest with *E. rodwayi*, *E. pauciflora*, *E. ovata* and *E. delegatensis*, *E. viminalis* and *E. globulus*.

Life history: Eggs are laid in *Poa* tussocks. They hatch after 6 weeks but the caterpillars are inactive over winter. They feed during spring then moult and pupate in the tussocks. Pupation takes 5 weeks and the adults emerge in autumn. Their flying season is for 2-3 weeks in March/April when they fly from 10 am to 4 pm on calm, warm, sunny days.

Threats: Conversion of *Poa* grassland to exotic pasture/cropland or plantation; fragmentation of habitat; degradation of habitat due to grazing, burning and insecticide drift. Further threats are posed by the European wasp and a danger of being ingested by stock.



There will be many members peering ever more closely at *Carex appressa*, *Gahnia radula* etc. on bush excursions and seed collecting days after this engrossing presentation.

Prepared by Mary Jolly

Tasmanian Seed Conservation Centre

By James Wood

2005 saw the beginning of an ambitious new conservation program here in Tasmania. Three Tasmanian bodies (the Royal Tasmanian Botanical Gardens, the Vegetation section of DPIW and the Tasmanian Herbarium) combined their expertise and entered into the Millennium Seed Bank Project (MSBP).

The MSBP is a 10 year, global conservation program lead by the Seed Conservation Department of the Royal Botanic Gardens, Kew in the UK. The MSBP seeks to safeguard 24,000 different wild plant species by the end of 2009 by establishing seed banks around the world.

The Tasmanian MSBP program is called Seed-safe and it aims to collect 800 wild plant species and establish a seed bank facility within the Royal Tasmanian Botanical Gardens.

In April of 2005 Seedsafe's seed collector Micah Visiou began work harvesting seed material. Meanwhile work began in the Gardens to create a seed banking facility and in August 2005 the Tasmanian Seed Conservation Centre (TSCC, the name for our seed bank) was officially opened. In December 2005, I, James Wood, took the post of Seed Bank Coordinator, leaving my former job at Kew's Millennium Seed Bank.

As well as our MSBP collecting targets the Seedsafe group seeks to actively participate, wherever relevant, with plant conservation programs within Tasmania and establish itself as an essential aid and resource for Tasmanian plant conservation effort by 2010 and beyond.

The material we collect will routinely be tested for quality by the use of germination tests. These tests will be carefully run at the TSCC laboratory and all data will be recorded. This means that the process will generate a valuable body of data on the germination behaviour of our native flora. Also collaboration is to be developed with the University of Tasmania to promote more study of Tasmanian seeds.

Understorey Network members can assist the seed conservation centre by reporting on the location of priority plant species with seed this summer.

Listed below are some of the priority plants to watch out for. (listed only to genus here—for a complete list of species contact Ruth Mollison)

Family Astereaceae

Brachyscome sp. (daisies)

Family Cyperaceae

Carex sp. (sedges)

Schoenus sp. (bogsedges)

Family Onagraceae

Epilobium sp. (willowherbs)

Family Plantaginaceae

Plantago sp. (plantains or docks)

Family Scrophulariaceae

Veronica sp. (speedwell)

Family Violaceae

Viola sp. (violets)

If you spot a good population or sites with multiple seeding targets please contact one of the following people:

James Wood, Seed Bank Coordinator
Royal Tas Bot Gardens. Ph: 6236 3079

Micah Visiou, Seed Collection Officer
Vegetation Section DPIW. Ph: 6233 6702

For more information on the MSBP please visit <http://www.rbqkew.org.uk/msbp/>

For more information on the TSCC please visit http://www.rtbq.tas.gov.au/tas_seed_conservation.html

Christmas Gathering and Barbeque

Understorey Network members, friends and family are warmly invited to a Christmas barbeque at Kris Schaffer's property at Neika, on Mount Wellington.

Kris has landscaped her native garden over a long period of time to provide habitat for local beasties, including snakes, bats and ringtail possums!

Where: 94 Morphetts Rd Neika (turnoff 4km past FernTree pub coming from Hobart, then .94km along Morphetts Road on RHS)

When: Thursday, 7th December, from 5pm to 7pm.

Bring: A salad or bread, and a drink (barbeque meat provided)



What's Happening:

Bruny Island farm visit and seed collection
Where: 'Murrayfields' Property, North Bruny Island.

Ferry Info: Car Ferry leaves Kettering at 9:30am (arrive at 9am for car pooling). fullfare return\$25

Directions: On Bruny travel approx.8km along road from ferry to main intersection. Turn right towards south Bruny. Murrayfields entrance is about 1km along on left side, drive in to shearing sheds.

When: Tuesday, 16th of January 10:30am to 1:30pm.

Bring: ID books, paperbags, pen, secateurs
Refreshments, hat, protective footwear.

A great opportunity to visit this spectacular property, have a look at revegetation sites and collect seed.

Northern Wetland Plant ID & Seed Collection

Where: Woodstock Lagoon at 'Springbank' Longford. Travel 4.5km along the Bishopsbourne Road from Longford, to just past the 'Springbanks house, to a marked paddock gate.

When: Saturday, 20th of January, 11am to 1 pm.

Bring: ID books, paperbags, pen, secateurs
Refreshments, hat, protective footwear.

Micah Visiou, the Seed Collecting Officer for the Botanical Gardens Seedbank will lead a walk through these special wetlands, and assist with reed/sedge identification and seed collection.

Channel farm visit and seed collection
Where: 'Fort Chimo' property, 449 Old Station Road Lower Snug.

RSVP for directions and map.

When: Sunday, 28th of January 11am to 1pm.

Bring: : paperbags, secateurs,pen,ID books, refreshments, hat , protective footwear.

A great opportunity to visit this lovely working farm, with extensive coastal bush. We will be collecting seeds for the seedbank.

East Coast plant ID walk and seed collection
Where: Friends School Property, Happy Valley Road, Orford.

When: Wednesday, 31st of January. Meet at 10am at the new café near the main bridge at Orford.

Bring: paperbags, secateurs,pen,ID books, refreshments, hat , protective footwear.

We will be identifying the understorey plants on this dry coastal bushblock, and collecting seed for our seedbank.

Please RSVP to Ruth for field days

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ruth.mollison@understorey-network.org.au





The Understorey Network News

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