



Understorey Network

Autumn Newsletter 2005
No. 31

In this Issue

- Cool season plants
- Feature plant: *Triglochin sp.*
- Growing ferns from spores
- Smokey Water
- Legionnaires Disease

CONTACT DETAILS

Enquiries and newsletter articles to:

Project Manager Ruth Mollison
Phone: Office (03) 6223 6377
Mobile: 0407 352 479
Email: ruth.mollison@understorey-network.org.au
PO Box 9868 Hobart 7001.
110 Hampden Road, Battery Point.

Memberships to:

Anne Griffiths,
PO Box 126, Huonville 7109.

Growers Scheme Coordinators North/NW

Anna Povey Ph: (03) 6334 6633

Growers Scheme Coordinator South

Louise Jerrim Ph: (03) 6295 0780

Visit our website and Plant Propagation Database at:

www.understorey-network.org.au

Project Manager's Report

This Autumn edition of the newsletter has a propagation theme, as a motivation for some cool season planting. This and following editions will be featuring a network member and a native plant. I would love to hear your experiences as a network member, including funny stories, disasters and successes— to pass on to the network (Pictures and photos would be great). Also, any suggestions for articles are most welcome.

We have had two successful seed collecting days, one in the North at Bridport Wildflower Reserve and one in the South at Quarantine Point on Bruny Island. Both were well attended, with people taking away handy hints plus extra enthusiasm for collecting seeds..

A note for the North West members: I will be up your way in May to meet members, and would love some feedback on useful workshops/social get togethers in your region.

I have enlisted some help by starting a round of seed sorting morning teas—its an easy way for me to get to know everyone as well. If you have some seeds and need a hand sorting/cleaning them, let me know and I'm happy to organise a morning tea in your area. It's also a great way to get to know other members living nearby.

USN Steering Committee 2004/5

President: Anne Griffiths Ph: 6264 1896

Vice President: Helen Morgan Ph: 0429 197 671

Secretary: Mary Jolly Ph: 6227 8506

Treasurer: Peter McGlone

Other Committee Members:

Brian Griffiths, Liz Quinn, Angela Jackson

COOL SEASON PLANTS

By Anna Povey

Now that there has been some cooler weather, the banksia seeds that I sowed months ago have begun a burst of germination. Sometimes a few seeds will germinate in spring, but most wait till autumn. When I look banksias up in my book ("Growing Australian Native Plants from Seed" by Murray Ralph), it says that high temperatures at the time of sowing may induce dormancy in some species, such as our own *B. marginata*, and that stratification (cold treatment) for 8-10 weeks can improve germination. Of course, you could use a shade-house or some other means of avoiding high temperatures, and you could put them in a punnet in the fridge for a while (stratification). Or you could try sowing them now!

Actually a number of species prefer autumn sowings. Many lilies (such as chocolate lily and vanilla lily, and also trigger plants), Bursaria (fresh seed), Banksia, Brunonia, Callitris, Linum, and Myoporum are some that I have found (or read) do better sown in autumn. Some eucalypts (eg. *E. pauciflora* and *E. amygdalina*) also like a bit of cold before they germinate.

Some of these cold-loving species seem to germinate and grow through the cold weather, others like cold followed by warmth to germinate. So some of them may not germinate till spring, but they need the cold first. You can experiment with stratification, or simply do it the normal way outside and wait for something to happen. Stratification involves sowing the seeds on a punnet/seed tray, moistening the mix, placing in a plastic bag to reduce drying, then leaving in a fridge for 2-8 weeks. Make sure they haven't dried out. After the allotted time (books may guide you), bring out to the warmth, remove the plastic bag and keep moist and in the daylight.

Billardiera and Clematis often seem to germinate after some cold, but this is usually after 6-12 months in my experience, so I think there is just a period of time they have to sit there. I have tried autumn sowing clematis, but it still took over 6 months

Both of these seem to have a good germination rate once they get going. (Always assuming you had good seed in the first place).

By the way I have tried Milkmaids, *Burchardia umbellata*, a couple of times, sowing in autumn as this is a lily. They always germinate well for me, but (just as the book describes) they fail to thrive. No matter what I do, the seedlings stay little and spindly and ultimately die. Perhaps in nature they rely on some micro-organisms, but my efforts to introduce these with some bush soil from around the parent Milkmaids didn't work. Other lilies have always gone well for me, particularly in autumn.

Member Feature

Understories

Birds and Berries



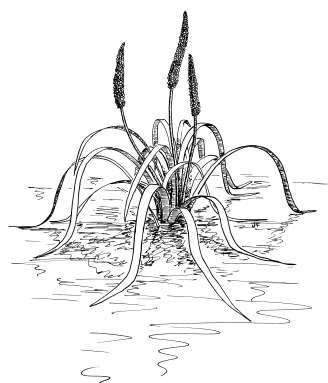
Trish is an Understorey network member, regenerating 3 acres of cleared land, on her property outside Bridport.

Trish seems to have found the right ingredients for successful propagation of the Mountain Pepper Berry, as follows:

1. Collect dried currawong regurgitate containing seeds. (These were from Diddleum).
2. Leave the pots outdoors and be prepared to wait 12 months.
3. Weed out assortment of other germinating seeds that the currawong has digested.
4. Wait for a hard frost, just after winter.
5. Hey Presto— pepperberries coming up thick and fast.

Trish is now searching for local homes for her growing family of Mountain Pepperberries. Contact Ruth Mollison, Project Manager on (03) 6223 6377,

Feature Plant
Water Ribbons



Triglochin, or 'Water Ribbons' is an aquatic emergent plant with spreading floating strap-like leaves, found in slow-flowing and stillwater. It has a distinctive single flower spike, packed with fruit in late summer.

It is a valuable aboriginal food plant with a starchy tuber, with a sweet nutty flavour when cooked. Its also an important component of wetland habitats as nesting material for waterfowl, shelter for fish, and a basking surface for frogs.

Triglochin has huge potential in constructed wetlands. Research shows that the Western Australian species, *Triglochin huegelii* removes more nitrogen and phosphorous from nutrient-rich water than other emergent macrophytes. Triglochin species are generally capable of surviving dry conditions by reducing to a tuber, but usually grow throughout the year in wet conditions. Triglochin also grows in brackish water (up to 6,000mg/l).

Don't be deceived by seeds that are still green - they are ripe when they fall easily from the seed spike. Seeds need to be stored in water, and planted in the season they are collected.

They germinate readily, and may begin sprouting before you get their pots organised! Plant into pots that are in a water bath to keep soil saturated.

* * * * *

Growers Scheme

Plant Order forms will be going out with the next newsletter, during July —keep an eye out for it. All orders need to be in by the 31st of August.

If you would like to be a volunteer grower, we will match you with a member who requires plants — unless you are growing for yourself. It's a fun and rewarding activity with everything supplied—including instruction guide, tubes, potting mix and seeds.

You can collect your kit from a depot in September. There will be a workshop in your area before then, demonstrating common propagation techniques.

Growers are needed for:
'Subirdia' - a project in partnership with the Tasmanian Environment Centre to create bird-friendly habitat in central Hobart suburbs.

And

Constructed Wetlands: Want a challenge—try something different? Growers needed for a wetland project at Riverside High School.

* * * * *

GROWING FERNS FROM SPORES

Instructions kindly provided by
Heather Cumming



Blechnum wattsii

Photo courtesy of Hans and Annie Wapstra

Ingredients

A clean smooth house brick
A shallow baking dish
2 litre icecream container
Vinegar
New plastic bag
Spores

Collection of spores: pick a fertile frond and place on a folded sheet of paper in a warm position. The spores are like fine dust, and released in a few days.

Method

Bake the shallow dish and brick in a hot oven (as for bread)

Cut the bottom out of the icecream container. Retain the sides! Scrub well with hot water and vinegar. Do not use BLEACH – it's a killer!

When the brick and dish have cooled off in the oven, put the brick in the dish, threading the brick through the icecream carton sides.

Do not touch the brick and tray too much and have everything (hands too) very clean.

Pop the whole caboodle straight into a new plastic bag so no dust etc floats in overnight. Collect the spores. Fill the tray with boiled water – not too full or it sloshes. When brick is moist (like overnight), sprinkle spores on top surface.

Close the plastic bag with a tie or knot, put it on a shelf in a warmish room and try to forget it for months.

Then peep! If you've got greenness coming, you're on your way

Leave all as is until little fernlets are big enough to lift off. The whole thing takes ages – like 18 months.

Smoke gets in your eyes

An article in the *Australian Life Scientist*, Aug/Sept 2004 contains some interesting information about smoke's 'phoenix factor'. This is an edited version:

Smokey water has been used for at least a decade to encourage seeds of some recalcitrant native species to germinate. However the exact identity of the chemicals responsible have been unidentified to date.

Researchers from Perth's Kings Park Botanic Garden, the University of Western Australia, and Murdoch University have recently identified the mystery chemical from a class of molecules called butenolides. Butenolide delivers its wake-up call to dormant native seeds at a concentration of only parts per trillion—equivalent to one teaspoon in three Olympic swimming pools worth of water.

It's not surprising that the breakthrough came from Western Australian researchers, as many of the most spectacular Western Australian plants are extremely difficult to germinate. This includes species prized by the cut flower industry, that have to be harvested from the wild—placing pressure on wild populations.

Butenolide also increases germination rates in some vegetables, including lettuce and celery. The compound dissolves readily in water, although doesn't increase the seeds permeability to water but appears to increase the receptivity of the seed to internal reserves of gibberelic acid.

The WA researchers have shown that, even in species do not require smoke germination, such as banksias and eucalypts, a dose of butenolide turbo-charges seedling growth.

Researchers sprayed unburned native vegetation with the smoke solution and found that species richness doubled, relative to areas sprayed with just water. As butenolide can be synthesized cheaply, and is potent at low concentrations, it is feasible to use it for broad-scale applications.

This could be a tool for spraying plant communities that contain rare and endangered plants to stimulate germination without sacrificing existing vegetation, or where wildfire is suppressed.

LEGIONNAIRES DISEASE



There have been reports of risks to health from Legionnaires disease, from handling potting soil. Here is some information from :

www.health.vic.gov.au

What is Legionnaire's Disease?

Legionnaires' disease (Legionellosis) is a serious and sometimes fatal form of pneumonia caused by the bacteria *Legionella*. Although not all cases of Legionnaires' disease are severe, up to ten per cent of cases can be fatal.

There are over forty strains of *Legionella* bacteria but only a few cause disease in humans. The strains that are most commonly associated with human disease are *pneumophila* and *long-beachae*.

What are the symptoms?

Legionnaires disease usually causes fever, chills and a cough that may be dry or may produce sputum. Some people also have muscle aches, headache, tiredness, loss of appetite and diarrhoea. People can become very sick with pneumonia; most people recover but the disease is occasionally fatal. It is not spread from person to person.

The time between the patient's exposure to the bacteria and becoming sick is between two to 10 days.

Legionnaires disease most often affects middle-aged and older people, particularly those who smoke cigarettes or who have chronic lung disease. Also at increased risk are people whose immune systems are suppressed by medications or diseases such as cancer, kidney failure, diabetes or AIDS.

How is Legionnaires disease diagnosed and treated?

It is difficult to distinguish Legionnaires disease from other types of pneumonia by symptoms alone. Chest X-rays often show pneumonia but the diagnosis requires special tests. Tests of

blood samples (taken three to six weeks apart), sputum and urine can be helpful for confirming the diagnosis.

Patients with Legionnaires disease may be treated in hospital with antibiotics through a drip. Some may need to be in an intensive care unit and may need assistance to breathe by a ventilator.

Where are Legionella bacteria found?

Legionella pneumophila is usually found in water sources whereas another bacteria of the *Legionella* family, *Legionella longbeachae* is commonly found in soil and potting mix.

Most reported cases of Legionnaires disease are caused by the water-borne strain, *pneumophila*, however several cases reported recently in Victoria had arisen from potting soil containing the *longbeachae* strain.

What precautions can be taken?

Because *Legionella* bacteria are commonly found in soils and potting mix, gardeners should:

- **Always wear a face mask and gloves when using compost and potting mix, including opening the bag**
- **Moisten the contents of potting mix bags to avoid creating dust**
- **Always wash hands after handling potting mix**

Annual Subscriptions Due

Don't forget to renew your subscription for 2005/2006, so you can benefit from our Growers Scheme with a **complete growing kit** or **Free Plants**. If you haven't time for growing/receiving plants, you can just feel good that you are supporting our native Understorey! Encourage a friend to join as well.

(annual subscriptions paid from 1st of April onwards are rolled over to the following August . ie. You get a bonus three months including an extra newsletter..)

Subscriptions are great value at **\$22 /year** (see back page for membership forms.)

Reminder: If you have email, please put it on your membership form, as it is a cheaper *faster* easier form of communication.

WEED WORKSHOP

Are you or your Landcare/Coastcare/Waterwatch group interested in some formal training in weed control?

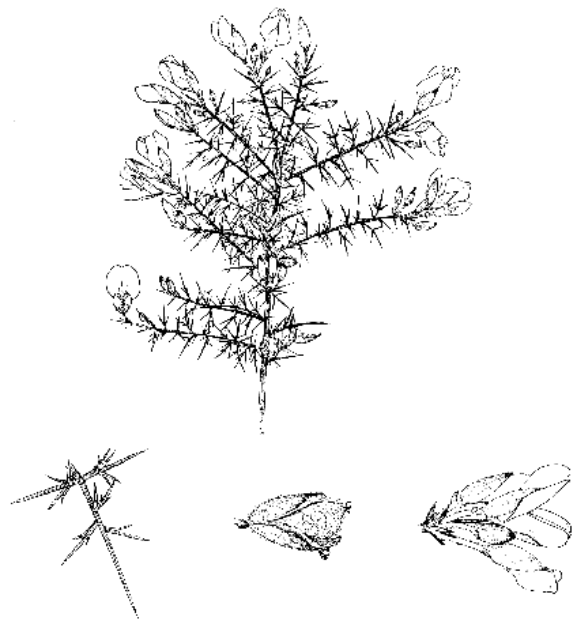
The Understorey network will be running a workshop in the North and South of the state with an accredited trainer to address your weed queries (eg. herbicide safety, weed identification, what to use where..)

Register your interest and suggestions on what you would like in a weed workshop as follows:

email: Ruth.Mollison@understorey-network.org.au

mail: GPO Box 9868 Hobart, 7001.

Phone: Ruth C/- Greening Australia's Office (03)



Gorse drawing from DPIWE notesheet

All newsletters are now available on our website:
www.understorey-network.org.au

What's Happening:

SOUTH

Greening Australia Field Day

When: Sunday, 17th of April 2005 at 11am.

Where: Lachlan Recreation Ground. Follow Glebe Road from New Norfolk to Lachlan Rd.

Speakers will discuss and lead a tour about enhancing native bush, wetlands or river vegetation and protecting stream banks and water quality. Fire and weed control will be important topics. Free BBQ lunch to follow. All Welcome.

For more information contact: Greening Australia, ph: 6223 6377

NORTH

Australian Plant Society Planting Day

Where: Heritage Park, Invermay.

Meet at the top end of Caswell St, Mowbray (Along Vermont St, then 4th on right, 1st left, 1st right then to the end of the Caswell St.)

When: Saturday, 21st of May 2005 at 10am.

What to Bring: favourite planting tool, watering can, gloves and enthusiasm.

An opportunity to learn about hardy plants including pioneer species, and site preparation, for reveg areas. Everyone welcome.

Still Seeking Seed Sorters

The Understorey network seedbank located at Greening Australia has expanded, thanks to donations over the last few months.

The seedbank now needs to be put into order, and details recorded.

Any offers of help will be much appreciated— and rewarded with free refreshments....

Contact Ruth:

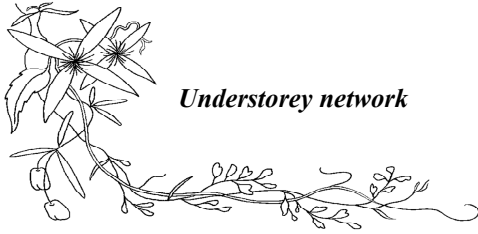
Email: Ruth.Mollison@understorey-network.org.au

mail: GPO Box 9868 Hobart, 7001.

Phone: Ruth C/- Greening Australia's Office (03) 6223 6377



Drawing of Klug's Xenica by Janet Fenton



Membership Application

ABN 62 599 420 020

Annual membership: \$22 includes GST

Please post cheque or money order to:

Anne Griffiths

Understorey Network

PO BOX 126 Huonville TAS 7109

Name:

Address:

P/Code:

Phone Home:

Phone Work:

Fax:

Mobile:

Email:

Signed:

Date:



Natural Heritage Trust

Helping Communities Helping Australia

An Australian Government Initiative

If Undeliverable return to:

Understorey Network

PO BOX 9868

Hobart 7001