

Understorey Network

Spring Newsletter 2005
No.33

In this Issue

- Gandering at the Goosefoot
- Seed Collecting this Summer
- Inverawe Native Gardens visit
- Understories: grassland
- Feature Plant: *Atriplex cinerea*

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

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

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Brian Griffiths , Liz Quinn, Bill Chugg,
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Project Manager's Report

It's been terrific growing weather lately, with warm sunny days and the occasional rain shower, so if you haven't already done so—get your native seeds into tubes as soon as possible.

The wild spring flowers have been fantastic this year also, promising a bumper seed set in the next few months. It's a good time to go for a wander in a patch of convenient bush, and identify those plants that will be useful for collecting seeds from once it has set. More details on seed collecting are in the newsletter. Do attend one of the seed collecting field trips listed in the newsletter.

Some of the activities of the network over the last few months include propagation workshops at the Arboretum at Eugenana and the Botanical gardens in Hobart, both very well attended and received. We had a Preparing to Plant Day at Inverawe native gardens at Margate, the AGM at the Botanical Gardens with guest speaker Mark Fountain on the Millennium Seedbank, and a weed control day at Elizabeth Town.

In the office, coordinating the Spring Grower's scheme has kept me busy. We have been matching up growers and requests for plants, sending out seeds and organising grower's kit pickup depots in the NorthWest, North and South.

Once again, with out the generous help from others, this would not have happened. Anna Povey organised the Northerners, Redbreast Nursery was the depot in the NorthWest, and in the South, Michelle, Louise, Mary, Annie, Des, Martin and Lindy assisted on depot day, with Els, Angela and Alice also helping out with seed matching.

PS: Please excuse the delays in email that have occurred over the last few months, hopefully the problem has now been fixed.

A very grateful Thankyou to everyone who has helped out over the last few months, and as this will be the last newsletter before the silly season— I wish you all a Very Merry Christmas!



GANDERING AT THE GOOSEFOOTS

By Phil Watson

The diverse and intriguing common names of Saltbushes, Bluebushes, Crumble weeds, Beetroot, Quinoa and Sugar beet provide motivation enough to explore the attributes of the 100 odd genera and 1500 species making up the Goosefoot family.

Characteristic of most family members are their goose-foot shaped leaves. This feature was the reason for the Greek words *cheno* & *podium* (Greek for goose & foot) being merged together to form the family's name of *Chenopodiaceae*.

Although many well known Saltbushes and Bluebushes have superior drought and salt tolerance, such as the small, water friendly, rambler called Climbing Saltbush *Einadia nutans* and the woolly Short-leaf Bluebush, *Maireana brevifolia*, unfortunately the Chenopods contains many invasive weeds including the invasive Fathen *Chenopodium album*.

On the positive side, Sugar Beet *Beta vulgaris altissima* is the key source of the world's sugar supplies, whilst Beetroot, English Spinach and Quinoa are heralded by various civilisations as traditional staple foods. The family also contributes to the flower garden through the spectacular crimson leaved, Ornamental Blue Bush *Kochia scoparia trichophylla*, whilst many medicinal and herbal remedies are extracted from the family's herbs such as the Crested Goosefoot *C. cristatum* (poultices heal skin infections) and Pigweed *C. album* (leaves chewed for toothache).

Chenopods are a gardeners' ideal plant.

Most of the 300 Australian herbaceous or shrubby species (15 Tasmanian species) flourish in saline locations within salt marshes (halophytes) or in dry arid plant communities. These tough survivors are some of the most water friendly garden plants available and once established thrive on neglect. **A word of warning however!** Their tasty leaves should be permanently protected from browsing rabbits, potoroos, wallabies etc, whilst their wind borne pollen has a reputation as one

in coastal revegetation projects, they should be classed as '**over successful natives**'. To restrict their invasive potential they need to be drastically pruned twice a year.

Glassworts form the salt marsh's framework

The Glassworts function as framework species within non-forest communities such as the valuable Salt Marshes. These communities are typically located adjacent to the sporadically inundated high tide levels of intertidal mudflats. They have adapted to survive periods of inundation by concentrating the saline water into their bladder-like stems, turning them pink then red. When the red colouration deepens, their stems drop relieving the plant of their salty burden.

The Glassworts are also key plants in the salt marsh's food web. They sustain the diverse populations of invertebrates and molluscs that are seen to be harvested by the long prying beaks of the many migratory waders such as the Oyster catchers, Red-necked Stints, Hooded Plovers etc. For example the Lauderdale Saltmarsh and the Ramsar listed Pittwater Saltmarsh have extensive Glasswort communities supporting key Migratory Bird habitats. Many of these communities have been subjected to a long history of degradation from landfill, development and extensive grazing pressures. However their roles and values are now appreciated following recent public awareness and formal reservation and/or recognition via Ramsar or other International Migratory Birds agreements such as JAMBA and CAMBA.

Mutual benefits for rare Birds and Butterflies

The Beaded Glasswort *Sarcocornia quinqueflora* (*Sarco* Latin for 'fleshy' *cornia* Latin for horns which aptly describes their flowering heads), the Thick Headed Glasswort *S. blackiana* and the Fleshy Seablite *Suaeda australis* provide a crucial food source for the endangered Orange Bellied Parrot. During winter the birds can be observed feasting on these fleshy leaves at sites on the Central Victorian coast, Northern Tasmanian Coast and Western Bass Strait Islands.

The attractive Chequered Blue Butterflies are de-



pendent on the Saltbush *Rhagodia candolleana*. They lay their flattened pale green eggs singularly on the flower heads. Once hatching has occurred, the larva munch voraciously on their succulent leaves. By mimicking the leaf's colour and texture, they remain protected from bird predation.

People's Plants

It is not surprising that the aborigines and colonists enjoyed a variety of bush tucker treats supplied by the Chenopods when one considers that during the Inca period vast armies were sustained on the Chenopod, Quinoa *Chenopodium quinoa*. Known as the "Mothergrain", Quinoa has proven nutritionally far superior to all cereals and milk. It contains up to 18% complete protein and has an ideal blend of poly & mono-saturated fats. Although avail-

able today in health food shops, users often forget to pre-rinse the bitter saponins out of the grain prior to cooking. Interestingly the Incas used the rinsings as an antiseptic or as a detergent to foam water by the action of reducing its surface tension.

Once the early colonists had realised that native plants eaten by aborigines were safe for them to try, Chenopods became a very popular bush tucker. The Chenopods require boiling to remove their saltiness before savouring as delicious greens. Commonly eaten were the Marsh Saltbush *Atriplex paludosa* and the Climbing Saltbush, whilst Fleshy Seablite gained a reputation as a pickle. Scurvy was avoided by early mariners by harvesting and cooking Bearded Glassworts.

Interestingly, recent irrigation trials with saline water have opened up a potential green food supply in South Africa, with excellent growth rates being achieved from Bearded Glasswort crops.

A word of caution! As a green, these plants should be enjoyed in moderation. Like their relative Spinach *Spinacia oleracea*, they contain oxalates, which may cause digestive discomfort. However, the toxicity of oxalates is diminished by boiling and/or by serving them with foods rich in Calcium. Delicious creamy sauces or spinach kirsches are ideal options! The seeds of Grey Saltbush, like many of the Chenopods, were valued for grinding into a meal for baking as flat bread. Alternatively, a 'lye' (alkaline substance) was formed from the white ashes of burnt Saltbush foliage. An excellent home-made soap was formed by mixing the lye with mutton fat and perfuming this gelatinous mix with favourites from the colonist's cottage garden (lavender, roses), before allowing it to dry.

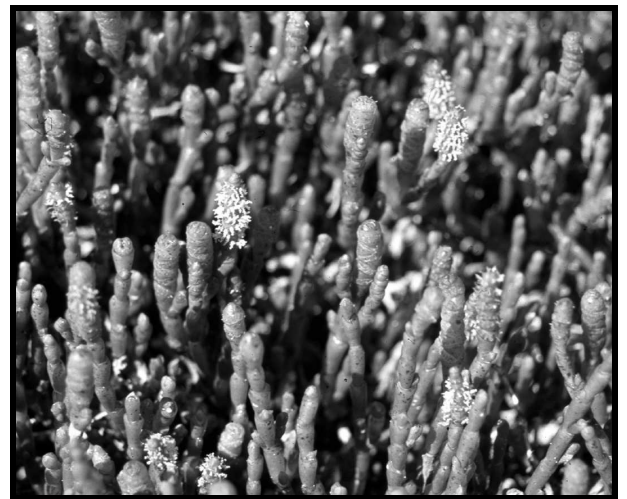
Medicinal herbs

The glycoside Saponin as an active ingredient in Spinach and other Chenopods aids the digestion by improving the absorption of minerals such as Calcium and Silicon, thereby correcting nutrient deficiencies.

Chenopods cooked as greens also have a mild laxative effect, whilst providing a good source of Vitamins A and C. The crushed leaves of *Chenopodium album* have proven valuable in poultices applied to burns, swellings and wounds. They were also chewed uncooked to relieve toothache, whilst medicinal teas have gained a reputation for healing mouth ulcers. Wormseed oil extracted from *C. ambrosioides* is considered one of the most toxic of all essential oils. It was used as an anthelmintic (intestinal worm killer), but its toxicity limited this application.

In summary

Although the Goosefoots contains many people's plants, highlighted by the culinary delights of beetroot, spinach and quinoa, they deserve greater recognition for their unheralded ecosystem service role in supporting the filtering and habitat values of the exquisitely complex salt marsh communities.



The beaded glasswort, *Sarconia quinqueflora*.
Photo by Richard Barnes

Seed Collecting this Summer

Its seed collecting time! This is an addictive and satisfying past time, if you haven't done it before, have a go—its easy (see the seed collecting hints liftout). You can do it while waiting for kids to finish their sports match, while fishing along a riverbank, wandering in the bush, or having a cuppa on the side of the road.

The Understorey Network banks on seeds to keep it running— we need more seeds.

The seedbank has been depleted with the latest Grower's Scheme underway, and 45 growers statewide receiving seeds. Every bit helps, even if its just a teaspoon full of peas! You don't need to clean and sieve seed pods/nuts/capsules, just keep them in a labelled paperbag or envelope in a cool dry place.

You can deliver or mail seeds to:

Ruth Mollison.

C/-Greening Australia

110 Hampden Road

Sandy Bay.

The Understorey Network now has two sets of stacking sieves, one in the north and one in the south— I will organise seed cleaning days in the colder months in your area, or here at Greening Australia, using the sieves.

We need seed from all areas around Tasmania, to ensure we can offer seeds with local provenance to growers.

The following municipalities have no, or very few, seeds in the seedbank:

Break O'Day (Bicheno, St Helens, Scamander).
Glamorgan-Spring Bay (Swansea, Triabunna, Buckland)

Northern Midlands (Ross, Campbell Town, Longford)

Southern Midlands (Bagdad, Oatlands, Pontville)

Central Highlands (Bothwell, Hamilton, Ouse, Miena)

Meander Valley (Hagley, Deloraine, Weegen)

Latrobe (Port Sorell, Latrobe)

Kentish (Sheffield, Cradle Valley, Barrington)

Central Coast (Ulverstone, Penguin, Riana)

Waratah-Wynyard (Sisters Beach, Wynyard, Yolla)

Circular Head (Stanley, Smithton, Marrawah)

West Coast (Zeehan, Strahan, Queenstown)

We need seeds from a wide diversity of plants and trees.

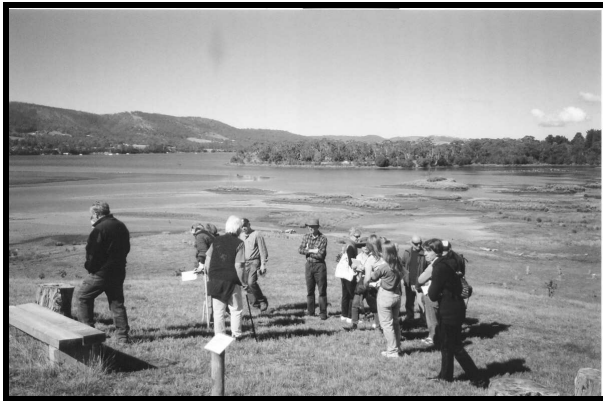
Many of the daisies are nearly ready to collect. Keep an eye on the pea family, as the seeds are released suddenly when ripe.

Seeds that are commonly used, and we need are listed below. It would be very useful if you can collect some of these from your area:

Species	Common name
<i>Acacia genistifolia</i>	Spreading wattle
<i>Acacia verticillata</i>	Prickly Moses
<i>Acacia mucronata</i>	Sallow wattle
<i>Acacia riceana</i>	Arching wattle
<i>Acacia lanogifolia</i>	Coastal wattle
<i>Aotus ericoides</i>	Golden Pea
<i>Bossiaea sp.</i>	Pea
<i>Bursaria spinosa</i>	Prickly Box
<i>Daviesia ulicifolia</i>	Native gorse
<i>Dillwynia sp</i>	Parrotpea
<i>Indigofera australis</i>	Native indigo
<i>Kennedia prostrata</i>	Running Postman
<i>Pultenea daphnoides</i>	Heartleaf Bushpea
<i>Pultenea juniperina</i>	Prickly Beauty
<i>Bursaria spinosa</i>	Prickly Box
<i>Lomandra longifolia</i>	Sagg
<i>Diplarrena moaea</i>	White Flag Iris
<i>Bulbine bulbosa</i>	Bulbine lily
<i>Juncus pallidus</i>	rush
<i>Poa labillardierei</i>	Silver tussock grass
<i>Carex appressa</i>	Tall sedge
<i>Austrodanthonia sp.</i>	Wallaby Grass
<i>Themeda triandra</i>	Kangaroo grass
<i>Banksia marginata</i>	Banksia
<i>Callistemon pallidus</i>	Lemon Bottlebrush
<i>Leptospermum lanigerum</i>	Woolly Teatree
<i>Leptospermum scoparium</i>	Manuka
<i>Melaleuca squarrosa</i>	Scented paperbark
<i>Melaleuca gibbosa</i>	Scented Honeymyrtle
<i>Chrysocephalum sp.</i>	Everlasting daisy
<i>Helichrysum scorpioides</i>	Culing everlasting
<i>Olearia sp.</i>	Daisybush

Inverawe Native Gardens (Margate) Field Trip.

By De Deegan



On the glorious spring day of September 4th we had a field day to Inverawe Native Gardens. Thank you and congratulations to Bill and Margaret Chestnut, our hosts and owners of Inverawe. It was an inspiring day to see what Bill and Margaret have achieved in the 4 years of owning the 20 acres in Margate.

Seventeen old and new members of the Understorey Network were greeted by Margaret and then taken on an hour tour by Bill who was truly amazing to hear how the land has been transformed from 20 acres of weeds, including blackberry, broom, hawthorn and thistle; into a magic native garden.

Inverawe displays a huge variety of native plants in many different settings and lookouts all connected by trails and walkways. Bill and Margaret have planted around 4,000 plants and trees.

There are many wonderful spots to pause and view not only the plants but some of the 70 species of birds around Inverawe. It is the perfect place to spend several hours wandering and the possibility of enjoying lunch along the way.

Seeing what Bill and Margaret have done makes me feel a bit like a slug, but they have given me many wonderful ideas to take back to my garden and the enthusiasm to attack a few of the more daunting tasks. The cost to enter Inverawe is \$8.00 which helps in the cost of restoring this beautiful piece of land.

Understories

Establishing a small acreage grassland.

Sick of mowing the lawn? Why not try establishing a native grassland as a low maintenance bush friendly alternative?

Understorey Network member Diana Shoo-bridge has successfully rehabilitated a degraded bushblock at Sandford with wallaby grass and tussocks. Diana divided large clumps of *Poa* into smaller clumps, gave them a haircut and stored them in moist potting soil until she was ready to plant them out. She put them in the ground about 30cm apart, with water-retaining granules, and watered them in well until they became established.

She has also interplanted with wallaby grass using the same method, but has had problems with dividing and transplanting *Lomandra*.

Diana is now growing *Poa* from seed, and has noted that the seedlings look very much like ordinary grass at first—so don't toss them out as weeds.

Diana has replanted about half an acre over several months, and has found it to be a successful method of re-establishing grassland on a small bushblock, as evident from the photo below.



Feature Plant
Triplex cinerea
Grey Saltbush

The saltbush is a coastal plant adapted to exposed foreshore areas, as it is very tolerant of high salinity and droughty soils.

It is a low spreading shrub, up to 1.5m high with attractive silvery-grey leaves. It has an extensive root systems making it an ideal plant for binding erosion-prone sandy soils. It flowers from September to March with dense purple-red male flowers at tips of branches, with silver-green female flowers on separate bushes, in the leaf axils. Collect the seed by cutting off the flowering head or remove fruit by rubbing hand through the bush.

The fruit contains salt which inhibits germination. The salt can be easily removed by rubbing the fruit under running water for several minutes, or soaking in water for an hour.

After washing, the seeds are usually sown while still in the fruit, or seeds can be removed from the fruit and sown without washing. It can be also grown from cuttings usually taken in January-February. In the garden annual pruning will prevent

Summer Field Trips

All members are welcome to attend the following seed collecting and plant identification trips:

Waverley Park Reserve, Bellerive.

Sunday, 18th of December at 11am.

Meet at the Winifred Curtis entrance, Bellerive

We will aim to collect seed from daisies, clematis, and stackhousia, if it is ready.

Bridport Wildflower Reserve

Sunday 8th of January, 1:30pm.

Meet at the entrance to the Golf Club

This flower reserve is a special place with a high diversity of plants in several different communities, including coastal heath.

Uniting Church Cemeteries at CampbellTown

Tuesday, 10th of January at 10am.

Meet at St Lukes redbrick church, opposite the hospital.

These cemeteries contain native grassland plants, with some interesting threatened species.

This field day will be run in conjunction with Greening Australia, and include an expert on threatened species, plus a demonstration of plant community monitoring.

St Luke's Cemetery at Bothwell..

Thursday, 12th of January at 11am.

This is a kangaroo and wallaby grass community with some rare daisies. This field day will be run in conjunction with Greening Australia, and include an expert on threatened species plus a demonstration of plant community monitoring.

Punchbowl Reserve, Launceston

Saturday, 14th of January 11am.

Meet at the Punchbowl Playground carpark.

Punchbowl has a mixture of native grassland and wet gully vegetation.

Peter Murrell Reserve, Howden

Thursday, 16th of February, 11am

Meet at the Huntingfield Avenue entrance, off the Channel Highway. (turn to the left, just pass Vodaophone).

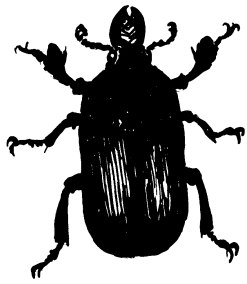
We hope to collect seeds from the pea family and any others ready at this time.

BRING secateurs, paperbags, pen, drink, field ID book if you have one.

Please RSVP to Ruth on: 0407 352 479

All newsletters are now available on our website:

www.understorey-network.org.au



Department

Activities in 2005



Working Bees



Propagation Workshops



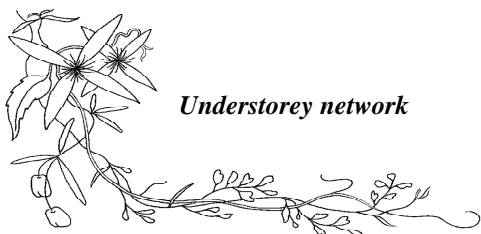
Seed Collecting



Planting



Line Drawings 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

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An Australian Government Initiative

If Undeliverable return to:
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Hobart 7001

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