



*Supporting landholders
with native vegetation*



Yellow-bellied Gliders

by Andrew Morrison

A local project to help conserve Yellow-bellied Gliders was launched this month and community members are being asked to map sightings on the Atlas of Life in the Coastal Wilderness (ALCW) website.

Bournda Environmental Education Centre (BEEC), in collaboration with Taronga Zoo, ALCW and local schools, launched *Project Insitu* which involves school children engaging their local community to take action for Yellow-bellied Gliders. This includes a community survey to map sightings.

Yellow-bellied Gliders are a medium sized, nocturnal gliding possum found throughout the Bega Valley and along the east coast of Australia.

Because of their need for large areas of relatively undisturbed forest with hollows (for dens) and food resources, Yellow-bellied Gliders are considered a good indicator species, meaning that if they are doing well in an area, the forest is likely to be healthy and will provide many other species with suitable habitat.

As a result of habitat loss and fragmentation Yellow-bellied Gliders are listed as vulnerable under the *NSW Threatened Species Conservation Act 1995*.

Yellow-bellied Gliders feed on sap, nectar and pollen, honeydew (secretions by scale insects) and arthropods (spiders, moths, beetles etc). As these resources are scattered through the forest and only become available seasonally, each family group of Yellow-bellied Gliders (up to six individuals) requires a large patch of forest



Yellow-bellied Glider in tree hollow

(between 20 to 85 hectares) to find enough food to survive.

Small isolated groups of Yellow-bellied Gliders are prone to local extinction so connectivity between large areas of forest habitat is vital for the survival of this species. A

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FUNDING AVAILABLE

Biodiversity Support Program

Southern Rivers CMA-Ag has funding to assist and support landholders to improve biodiversity at a landscape scale.

This funding comes from the Australian Government's Clean Energy Futures Biodiversity Program with a focus on carbon, biodiversity corridors and managing pest threats.

This complements the Carbon Farming Initiative (see article opposite). To obtain an expression of interest form or for more information, email graham.scott@cma.nsw.gov.au

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Austral indigo (*Indigofera australis*) flowering at the end of winter

Coordinator's column

Here we are at the end of winter, with many of us waiting for rain to improve soil moisture levels ready for spring planting projects. It's a good time to do some maintenance of previous planting areas, with weeds starting to flourish in the warmer weather.

We've held the first of our property walks, visiting two inspiring places in Brogo, exploring the influence of different soils types and topography on vegetation. Huge granite boulders, Rusty Figs, tree ferns and orchids were some highlights, as was the lone Burrawang at the Firth's (likely to be a marker

plant on one of the Aboriginal routes from the coast to the escarpment). The next walk will be in the Towamba Valley on Sat 16 November, with a focus on Lowland Grassy Woodland and the effects of different management techniques, including traditional Aboriginal burning practices.

Biodiversity corridors are a theme of this newsletter, reflecting the focus on these with the availability of funding from the Australian Government over the next five years. The CMN is looking forward to supporting landholders to put these projects on the ground. Ali

What is the CMN?

The Far South Coast Conservation Management Network (CMN) supports private landholders in the Bega Valley Shire to recover and manage native vegetation on their properties.

The CMN aims to inspire and motivate landholders, increase knowledge about native vegetation management and develop the skills to do this work. The coordinator produces quarterly seasonal newsletters, organises workshops and field days, manages a website and keeps landholders up to date with relevant events and information via a mailing list.

The CMN is funded and supported by the Southern Rivers Catchment Management Authority and Bega Valley Shire Council.



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study in Eurobodalla found they would not cross power line or road easements of over 40m.

If you would like to contribute to the community survey of Yellow-bellied Gliders in the Bega Valley Shire, take some time to listen after dark for their characteristic call of "Skree-uk-skree-uk-wufa-wufa-wufa" (go to the ALCW website www.alcw.org.au/ to hear what this call sounds like).



Photo: David Gallan

Chew marks on Eucalypt feed tree

You can also search for the chew marks that Yellow-bellied Gliders leave on eucalypt trunks and branches while feeding on sap, particularly on Red Bloodwoods (*Corymbia gummifera*). Record sightings (or hearings) on the ALCW website www.alcw.org.au/ or email Doug Record from BEEC (douglas.reckord@det.nsw.edu.au).

In addition to being involved in the Yellow-bellied Glider survey, landholders can help conserve them by:

- protecting existing forest remnants;
- improving connectivity between remnants by targeted planting, particularly along water courses; and
- learning how to identify sap feed trees and protecting these and hollow bearing trees.

Andrew Morrison from BVSC (6499 2253) is happy to advise landholders on planting for Yellow-bellied Glider habitat and/or recognising their feed signs.

Carbon Farming

Ben Keogh from Australian Carbon Traders visited the Bega Valley recently to talk to landholders about participating in the Australian Government's Carbon Farming Initiative (CFI).

The CFI allows farmers and other land managers to earn carbon credits (providing additional income) by storing carbon or reducing greenhouse gas emissions on the land.

To do this, landholders would need to set up a project according to a set of CFI rules. For example, there is a CFI methodology for "Environmental Plantings of Native Species" which landholders could follow to make their revegetation projects eligible to generate carbon credits.

Although it is early days and there are some bureaucratic challenges, Ben's advice was that "landholders' primary objective should still be to establish worthwhile projects on their properties (for example, establishing plantings to provide shelter

for stock, minimise erosion, improve water quality or provide habitat and corridors for wildlife). Gaining additional financial benefits under the CFI would then be an added bonus."

Most importantly, for landholders who think they may want to participate in the CFI either now or in the future, make sure any revegetation projects (or other changes to farm management practices) are consistent with the appropriate CFI methodology.

For information on participating in the CFI, visit www.cleanenergyregulator.gov.au or call the Clean Energy Regulator on 1300 553 542.

There is also a new carbon farming online resource providing technical information, tools and electronic resources about agricultural emissions and carbon farming which can be accessed at www.extensionprovidersport.al.org.au

Southern Rivers CMA-Ag organised Ben's visit with Australian Government funding.





White Stringybark and Tailed Rapier-sedge on steep, upper slope at the Firth's place, typical of skeletal soils on metasiltstone

Brogo Property Walk

Jackie Miles

Why do plants grow where they do in the landscape and how do you choose what to plant where?

Soil type and topography are two of the key factors explored on the recent CMN Brogo Property Walks led by Jackie Miles.

Different soil types retain and release moisture differently. Aspect and slope also affect drainage and the amount of sun a site receives, especially in winter. These factors, combined with rainfall, determine the amount of soil moisture available for plants.

With different plants tolerating different levels of soil moisture and nutrients, and exposure to frosts, sun and drying winds, it pays to consider these factors when

planning any revegetation activities.

Many plants will grow well in situations other than those in which they occur naturally, but it is almost always preferable to choose the species which are best adapted to your specific microclimate.

The two properties we visited in Brogo gave us the chance to see the effects of two of the main soil types from this region, those derived from metamorphosed siltstone and those derived from granite or granodiorite.

As metamorphosed siltstones are a very common substrate in the region (think of the coastal strip north of Tathra and up into the Eurobodalla) a wide variety of forest types can occur on them, depending on factors such as

aspect and steepness, from rainforests to rock scrub, and including the Spotted Gum dominated forests of the coastal strip.

Sandy or gravelly granitic soils are more free-draining than clay soils derived from siltstone. They are often weathered to great depths, so roots can penetrate down to the water table, whereas in more resistant rocks such as metasiltstone, the rock is much closer to the surface.

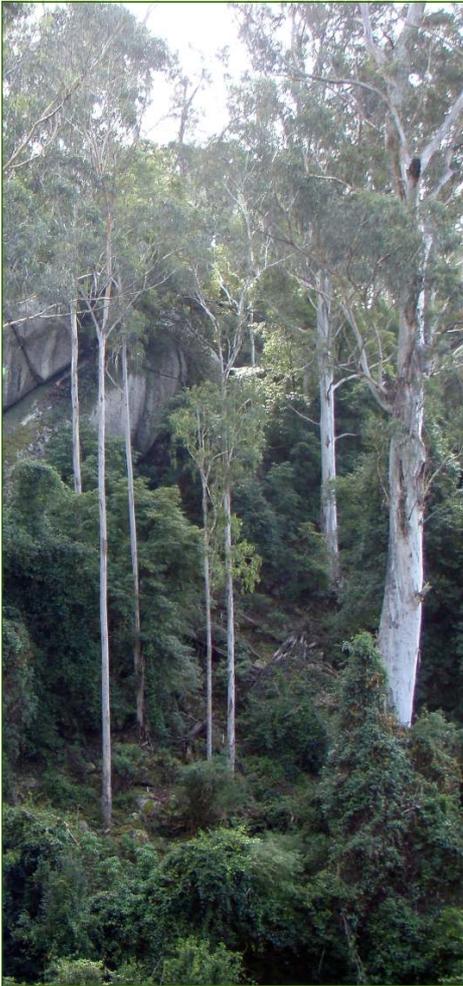
Some trees, such as White Stringybark (*Eucalyptus globoidea*) and Rough-barked Apple (*Angophora floribunda*) have a very wide range of environmental tolerance and are found in practically every forest type in the region, but others have more specific requirements, and divide up the habitat among themselves, based on where they perform best.

Forest Red Gum (*E. tereticornis*) is most likely to occur on exposed lower slopes on granite-derived soils, Maiden's Gum (*E. maidenii*) prefers upper slopes with a relatively sheltered aspect around the margins of the Bega River valley, also on granite, and Blue Box (*E. baueriana*) is usually



Photos: Alison Rodway

Jackie describes the effect of aspect on vegetation at the Krake's



Granite boulders, River Peppermints and vines in Bega Wet Shrub Forest gully

aspect. We saw the combined effects of different geology and exposure.

Vegetation on the lower slopes was similar to that at the Krakes' property as it is close to the boundary with granodiorite, and there is likely to be a greater depth of soil built up over time on the lower slopes.

This contrasts with the skeletal soils and rocky scree slopes seen in the upper parts of the Brogo Pass (think of the eastern side of the river, seen from the highway as you drive through this area, with its distinctive Bodalla Silver Wattle, *Acacia silvestris*, scrub).

On the ridges at the Firth's place we saw Lowland Grassy Woodland dominated by Forest Red Gum, with Blue Box and Rough-barked Apple in the adjacent gully.

On the steep upper slope the forest was markedly different, particularly in terms of the understorey. The forest in this area was dominated by White Stringybark, with little grass, a lot

more bare ground and leaf litter and a few plants typical of skeletal soils on metasilstone such as the Tailed Rapier-sedge (*Lepidosperma urophorum*), the grass tree *Xanthorrhoea concava* and the shrub *Zieria cytisoides*. This difference would be primarily because of lower soil moisture levels due to the landscape position (upper slope), steepness and shallow rocky soils.

The best way to decide what plants are most suitable to a specific site is to make observations of what species occur on sites which are similar in geology and topography around the region, though not too far away, as there are differences in forest composition from north to south as well.

Anyone interested in a more detailed account of why plants grow where they do in the landscape would do well to read the introductory chapters of Leon Costermans' *Native Trees and Shrubs of South-eastern Australia*, the bible of plant identification for our area.

located on sheltered lower slopes, valley flats and gullies, on either granite derived soils or alluvium.

The first property we visited was Graeme and Denise Krake's, located on granodiorite, with complicated topography consisting of ridges and gullies with a variety of aspects. We saw the effects of this topography on forest composition, with Brogo Wet Vine Forest (dominated by Forest Red Gum with scattered Rusty Figs) on the more exposed aspects and Bega Wet Shrub Forest (dominated by River Peppermint, *E. elata* and Rough-barked Apple) in the gully.

The second property was Don and Fiona Firth's, which is on metamorphosed siltstone at the northern end of the Brogo Pass, and with a primarily easterly

Photo: D&F Firth



Jackie and a Rusty fig growing on granite in Brogo Wet Vine Forest at the Krake's

Koalas and Fire Management

Recent survey information suggests that our local koala population is in the early stages of recovery. With wildfire and associated back-burning responses posing one of the greatest threats to this recovery, landholders in key koala areas can make a significant contribution to reducing fire risks.

Recent surveys provide heartening results which show koala populations occupying forests between the lower Bega and Bermagui Rivers. Koalas have extended into new areas and are using a higher proportion of trees compared with results in the same areas in 2007-9.

Wildfire and associated back-burning responses probably pose the greatest threat to koala recovery because of their potential to burn the forest canopy rapidly over a large area.



Fresh koala pellets –so exciting when you find them!

With the threat of wildfire increasing with climate change, and land managers responding with more extensive fuel reduction burning, the risk to koalas is likely to increase if fuel reduction planning and wildfire responses do not consider where important koala areas occur.

With its majority of traditional owners, the Biamanga National Park Board developed some important guidelines so that fuel reduction burning is not undertaken within any identified koala activity area.

Although there has been a significant increase in fuel reduction burns by National Parks' staff over the past twelve months to reduce the risk of wildfire impacting on koalas, these burns have generally been at low intensity and outside the koala activity cells.

Landholders with properties within the study area can collectively make a significant contribution to reducing the threat of fire to koalas in the following ways:

- Maintaining low fuel levels on their property using well-planned and ecologically sensitive strategies;
- Doing everything possible to ensure that fire does not escape from their properties (private properties are a major ignition source for wildfires);
- Actively supporting land management agencies in the implementation of an integrated approach to fire management.

Two 'Hotspots' workshops will be held early next year with a focus on supporting landholders living within and near to koala areas to work together in effective fire management.

The Hotspots Fire Project provides people with the skills and knowledge needed to participate in fire management



Kateena Aldridge, Jasmine Thomas, Khiana Foster (Bega Local Aboriginal Land Council) and Cici Legoe and Kahli Bressner - women's koala survey team that assessed survey sites near to women's areas in Biamanga National Park

planning and implementation.

Towards the end of the year we will be contacting relevant landholders to discuss the workshops in more detail. The initial aim is to develop fire management plans for private properties and then support a range of fuel reduction and fire management activities through the autumn period.

by Chris Allen
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Yuin Kelly and Angela Parsons (Merrimans Local Aboriginal Land Council) finding koala pellets on Aboriginal land near the Bermagui River

Catching Crofton Weed by Stuart Cameron

Crofton weed (*Ageratina adenophora*) is a major emerging weed threat on the Far South Coast with the potential to have an impact on the local environment and economy comparable to that of Fireweed (*Senecio Madagascarensis*). However, with vigilance and sustained effort it can be controlled.



coast and also along the upper Bemboka River at the base of Brown Mountain and at Nethercote. Crofton weed has been found at a number of roadside sites along the Princes Highway.

Should you find or suspect that you have found Crofton weed growing anywhere in this district please report it to the BVSC Vegetation Management team (6499 2405) as a matter of urgency.

From Wollongong northwards into Queensland it is often the dominant weed on roadsides and has also occupied large areas of pasture. In the Bega Valley Shire we have as yet only a number of small but widely scattered infestations, which are being controlled by BVSC, NPWS and landholders. However these infestations have already demonstrated the capacity of the weed to thrive in this region.

usually rather less. Its 'fluffy' white flowers appear in spring and are very distinctive, as are the diamond-shaped leaves on reddish stems.

Small isolated patches of Crofton weed can be hand pulled or removed with a mattock before flower set in early Spring and Autumn, ensuring crowns are removed.

Crofton weed displaces productive pasture and native vegetation and is poisonous to horses. Clearly, ineradicable establishment of Crofton weed in this district would be highly undesirable.

Crofton weed favours damper sites - wetlands, streambanks, roadside gutters, but is very hardy and invasive. Crofton weed sets vast quantities of seed and also spreads vegetatively. The seeds are spread by wind, water and contaminated soil and mud attached to machinery, vehicles, animals and footwear.

For large patches, spot spraying with a herbicide that is registered for use on Crofton weed in NSW and in a manner and rate stated on the label (or a current pesticide order) is an option. Seek advice from a Council Vegetation Officer or your herbicide supplier.

Crofton weed is a Central American daisy, originally introduced as a garden plant. The plant tends to form clumps, with stems up to 2m tall but

Given the quantity and viability of seed produced, any infested site requires regular and careful monitoring for a period of years after full control appears to have been achieved. Surviving plants may be difficult to discover in some sites, such as densely vegetated wetlands.

Maintaining good ground cover with native species and well managed pastures will also assist control.

The known infestations in BVSC are quite widely scattered: from Tura to south of Eden along the

For more information visit the Bega Valley Shire Council website www.begavalley.nsw.gov.au or www.dpi.nsw.gov.au/agriculture/pests-weeds/weeds/profiles/crofton-weed

SEASON	SUMMER			AUTUMN			WINTER			SPRING		
MONTH	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV
CROFTON WEED <i>Ageratina adenophora</i>												
BEGA AND SHOALHAVEN: NOXIOUS (4)												
	GERMINATION											
	FLOWERING											
	SEED DROP											
	HERBICIDE						SPOT SPRAY					
	OTHER CONTROL											
STRONG COMPETITIVE PASTURE; MECHANICAL REMOVAL												