

Autumn 2022

Angair Quarterly

Bringing you stories from the Anglesea, Aireys Inlet Society for the Preservation of Flora and Fauna.



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3, 11, 15

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SEASON OF MISTS AND MELLOW FRUITFULNESS

Ellinor Campbell

Autumn is a quiet season for flowers, but a peak period for the fruiting of many of our plants, and so is feast-time for our seed-eating birds. I have observed a range of fruit types. I always think that our wattles have some of the most interesting fruits as the seeds are enclosed in long, dangling, woody seed pods. Most wattles have nearly finished by autumn, except for Blackwoods, *Acacia melanoxylon*, which may still be covered in masses of clustered, twisting seed pods. I love the variety of shapes they make as they curl around each other and finally expose the seeds which are surrounded by their distinctive, fleshy, apricot appendage – the aril.



The widespread large shrub Sweet Bursaria, *Bursaria spinosa*, subsp. *spinosa*, has clusters of flattened dry capsules, initially pale-green, then turning a rich brown. Bursa means purse in Latin as the seed-case looks like a purse, and may rattle like coins in a purse before dispersing the seeds.



Along the coastal cliffs look out for a variety of bushes with small colourful berries or succulent fruit. Most widespread is Seaberry Saltbush, *Rhagodia condolleana* subsp. *candolleana*, with its luscious-looking terminal clusters of scarlet berries on the female plants. I once got close enough to take a good phone-photo of a Sulphur-crested Cockatoo, almost oblivious to my presence while feasting on berries.

The less common Sea-box, *Alyxia buxifolia*, is developing larger single, or paired, bright orange-red berries. Also look for Coast Beard-heath, *Leucopogon parviflorus*, with its less obvious small white berries. Tall shrubs of Common Boobialla, *Myoporum insulare*, grow in a range of locations, and have small purple berries dotted along their branches in the leaf axils. I always seem to miss the small berries on the thin-leaved Flax-lilies. However the Tasman Flax-lily, *Dianella tasmanica*, with long, wide, strappy leaves has spectacular large, oval, purple berries. This has been widely planted in the district in places such as the Allen Noble Sanctuary, and is really worth noticing.



Common Boobialla



Common Flax-lily

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Large Kangaroo Apple

The biggest fruit of this type has to be on the Large Kangaroo Apple, *Solanum laciniatum*. These eye-catching green to yellow-orange, globular, shiny berries are a little larger than acorns. They are edible when fully ripe but poisonous when green. This is a pioneer plant which often appears in newly cleared areas, but it only has a short life.

The last group have distinctive, but less appealing, long-lasting brown woody fruits. Our three prickly hakeas – such as the Furze, *Hakea ulicina* – all have very hard, pointed fruits. These are very popular with parrots, who often descend in noisy flocks and appear to enjoy the challenge of removing the seeds.



Furze Hakea



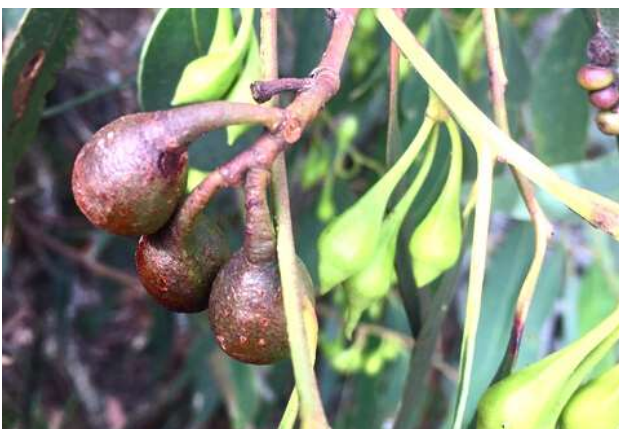
Coastal Teatree

Our four teatrees are readily identified when not flowering by their small rounded capsules, mostly in clusters close to the branches.

I just had to finish with one gorgeous flowering plant, *Ixodia*, *Ixodia archillaeoides* subsp. *alata*. This was formerly a highlight of Ixodia Track before the track's recent fire management burn. However they are quite numerous near the ironbarks along the track to Pt Addis. The low bushes with clusters of small, shimmering, white papery flowers are such a highlight of late summer and early autumn – enjoy!



Ixodia



Ironbark

Finally, of course, there are our very special trees, the gums. A walk along the coast path just before Pt Addis has numerous old, gnarled, stunted specimens of ironbarks, *Eucalyptus tricarpa* subsp. *tricarpa*. The foliage is at human level, so the woody, barrel-shaped, dangling fruits can be seen beside the developing green buds, which are in threes.

WHAT EXACTLY DOES ANGAIR DO?

Sally White

Angair has expanded considerably over its 50+ years and developed a variety of activities, events, services and connections with various outside organisations and community groups. The range can sometimes become confusing as some activities and tasks can overlap into several constituent parts of the society. The best example of this is the Wildflower & Art Weekend. Held in September, it requires expertise, hard work and cooperative spirit from each section of the society. It is the occasion when everyone comes together to work on just one task: a successful show. For the rest of the year, members can return to their preferred activities.



Here is a basic guide to Angair's diverse activities, all of which are directed to our prime purpose of protecting the diversity and wonder of the Aireys Inlet and Anglesea natural environment.

The Interest Groups focus on specific areas of environmental engagement. They are:

Environmental Care is just another name for weeding and planting. The group meets three Mondays a month and wages war on environmental weeds on public land. It also gets involved in regeneration projects to replace weeds with plants indigenous to the Surf Coast.

The Education Committee is a newly formed group designed to involve local school children and families in activities to increase their knowledge of the surrounding area through engaging activities. It also organises speakers for Angair social evenings and the annual dinner.

The Flora and Fauna Interest Group members organise the monthly bird walks, nature rambles, Get To Know Our Tracks walks, and microscope study sessions. The group harnesses the expertise of its members to initiate, plan and produce publications such as updated indigenous plant lists and books like the invaluable *Flowers of Anglesea and Aireys Inlet* and *Orchids of the Anglesea District*.

The Kangaroo Advisory Group was set up to assist academic research into kangaroos and maintains a watch on kangaroo issues.

Marine and Coastal matters are covered by an informal group which liaises with relevant other groups (see Friends Groups below).

The Propagation Group runs twice-weekly propagation sessions with the aim of increasing the use of indigenous plants in local gardens. The plants are sold to members, the general public (only twice a year) and to community groups. It also partly maintains the gardens around the Anglesea Community Precinct.

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Communications these days happens in both digital and hard copy forms. Angair has recently considerably increased its digital presence. There are five main places where people can find out about Angair, its work and its aims.

Angair News is emailed to members monthly (excluding January) and contains brief news items about what's happening or been seen in the local environment. It provides digital links to the Angair monthly events calendar and longer Angair articles elsewhere and (sometimes) in external publications.

Angair Quarterly is published at the start of spring, summer, autumn and winter. It contains in-depth articles on general and local natural history subjects, extensive illustrations, occasional artistic works and people profiles.

Angair Nature Show is a highly successful online innovation, born because COVID killed the Wildflower & Art Weekend for two years in a row. It captures the glory of nature expressed through themes such as Wonder, Protect, Learn, Explore and Create. Visit it on www.angairnatureshow.org.au

Angair website provides a comprehensive coverage of Angair activities and natural history articles for the general public. You'll find it at www.angair.org.au

Social media: Angair has a Facebook page that records many of the day-to-day activities.

The society also monitors other community sites such as Anglesea Life and Airey's Inlet's 3231.



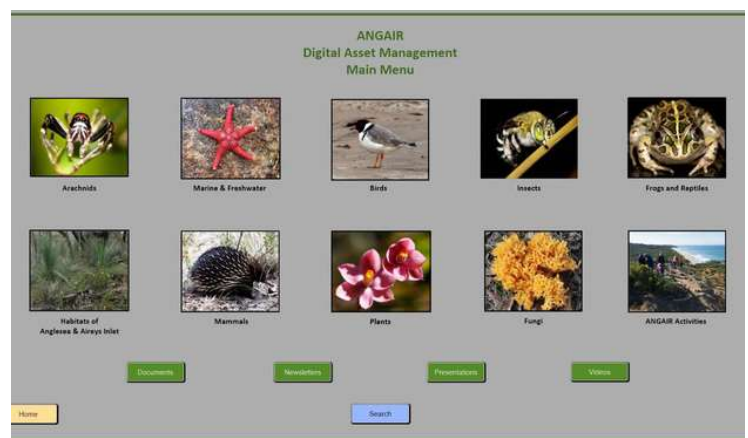
Services and Administration Any organisation with around 700 members needs lots of backup to meet their needs. Angair volunteers spend much time on the following administrative tasks:

Membership grows every week – and particularly around show time – so our membership secretary has to be available to welcome new members promptly and answer their queries.

Information Technology moves quickly so Angair's technological needs have to be met and constantly maintained.

The Library contains a substantial number of books and natural history collections including those from Mary D White and John Landy. Members can borrow books during opening hours on Monday and Thursday mornings.

Digital Asset Management – Angair's history and expertise is being comprehensively digitised to form a valuable research resource. This resource is available for members to use – training provided.



Friends Groups Anglesea and Aireys Inlet have many special natural places that generate groups of their own loyal protectors. Angair works – both formally and informally – with the following Friends:

- Friends of the Aireys Inlet Valley and Coastal Reserve
- Friends of Allen Noble Sanctuary
- Friends of the Eastern Otways NP (separately incorporated)
- Friends of the Ironbark Basin and the Pt Addis Marine Park
- Friends of Moggs Creek
- Friends of Sandy Gully

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Membership of outside committees

Angair's hard-won reputation for environmental expertise has led to it providing members to serve on the community consultative mechanisms of a number of official authorities. These include the:

- Alcoa Community Consultation Network
- Anglesea River Working Group
- Barwon Water Environment Committee
- Corangamite Catchment Management Authority
- Regional Roads Victoria Community Consultation Committee

As you can see, Angair has lots of work to do to fulfil our aims. And we always need people to volunteer; so if you think you could give an hour or more to helping Angair move confidently into its next five decades, just email us at admin@angair.org.au.



Angair Wildflower & Art Weekend

ANGAIR Inc.

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Membership Reports Conservation Groups Calendar Research Weeds, Fauna & Flora Holdings Merchandise

"Man did not weave the web of life; he is merely a strand in it. Whatever he does to the web, he does to himself." Chief Seattle

Gang-gang (kangaroo) Photo courtesy Trevor Percott

Welcome to ANGAIR

ANGAIR (Anglesea, Alveys Inlet Society for the Preservation of Flora and Fauna) is dedicated to protecting our indigenous flora and fauna, and to maintaining the natural beauty of Anglesea and Alveys Inlet and their local environments. It was established in 1969 through the influence of a local resident Mrs Edith Lavin. Read more about our achievements over the last 50 years.

We hope you enjoy your visit to the ANGAIR website and will consider joining our Society. If you are interested in the environment, want to learn more about the flora and fauna found in it, and wish to conserve it for future generations, there are lots of different ways you can get involved and support us.

Search

EVENTS CALENDAR

25	Fri 7:30pm - 10:00pm	Annual General Meeting
26	Sat 9:00am - 2:00pm	Get To Know Our Tracks
27	Sun 9:30am - 11:00am	October of 2022 Meeting

www.angair.org.au

ANGAIR

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ANGAIR Nature Show 2021

www.angairnatureshow.org.au

INSPIRED BY NATURE: HAIKU AND ARTWORK

Sally White

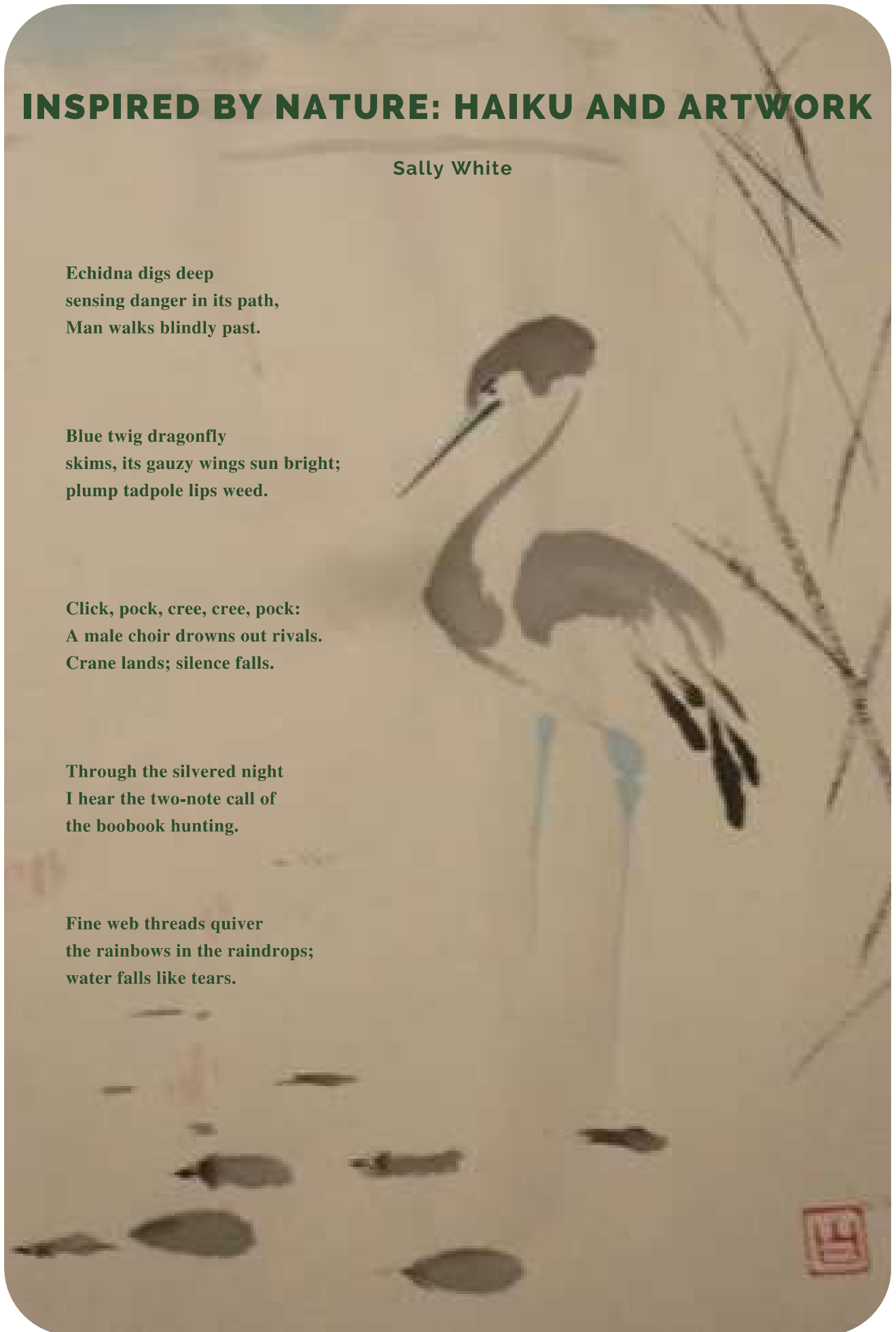
Echidna digs deep
sensing danger in its path,
Man walks blindly past.

Blue twig dragonfly
skims, its gauzy wings sun bright;
plump tadpole lips weed.

Click, pock, cree, cree, pock:
A male choir drowns out rivals.
Crane lands; silence falls.

Through the silvered night
I hear the two-note call of
the boobook hunting.

Fine web threads quiver
the rainbows in the raindrops;
water falls like tears.



THE SHORT-BEAKED ECHIDNA

A success story built on some very unique biology.

Rob Shepherd

The short-beaked echidna, *Tachyglossus aculeatus*, often seen in both bush and urban settings around Anglesea and Aireys Inlet, is an ant and termite specialist native to Australia and New Guinea. This unique mammal is quite common and successful in occupying a wide range of habitat, from desert to above the snow line. *Tachyglossus* is derived from Greek meaning 'fast tongue', while its common name is derived from the Greek goddess Ekhidna who was half snake (reptile) and half woman (mammal).

The short-beaked echidna has one close relative, the long-beaked echidna, *Zaglossus bruijni*, which is native to New Guinea and is in danger of extinction. A more distant relative – the Duck-billed Platypus, *Ornithorhynchus anatinus* – is specialised for feeding underwater. These three species comprise the entire surviving members of the order of Monotremes, an order that branched from the main mammalian lineage approximately 150 million years ago.



Image: Rob Shepherd



Image: Ursula Shepherd

Although all three species have milk glands and fur characteristic of mammals, they also share features considered 'primitive' for mammals: they lay eggs, and have a single ureo-genital opening called the cloaca (hence the order Monotremata, meaning 'one-holed'), that is also found in reptiles and birds.

The body temperature of the echidna is lower than that of most mammals, typically between 28-34C. The echidna generates body heat during active periods as a result of muscle activity, although they avoid internal temperatures above 34C by seeking shade, cool burrows, bathing and avoiding activity. Internal temperatures above 34C can be fatal. Unlike the great majority of mammals echidnas cannot pant and have no sweat glands to help control their temperature. They can, however, tolerate very low internal temperatures overnight when inactive, and undergo a specialised version of hibernation known as torpor, exhibiting significantly reduced body temperature and metabolic activity during periods of reduced ambient temperatures and/or food supply. Unlike hibernation, animals in torpor can be readily aroused. During torpor the body temperature of an echidna can drop to 10C!

Echidnas are solitary animals, moving within a home range of about 50 hectares and only coming together to mate. Males actively seek out females during mating season (June to September). 'Echidna trains' of as many as six males can be seen moving in line behind a female. Consistent with a reputation for unique biology, the echidna penis has four heads and has been described as one of the 'weirdest penises of the animal kingdom' by the Smithsonian Magazine. Only two of the four heads are functional during a single mating, and the advantage of such a mechanism to the species remains unclear. Unlike other mammals, the monotreme penis is used only for mating and never carries urine. When not in use, it is stored internally.



Image: Rob Shepherd

One egg is produced and placed in a pouch about two weeks after mating. The young echidna, or 'puggle', is only 13-15 mm long when it hatches from the egg after about 10 days of incubation. The puggle then develops in the pouch for approximately two months..

Before the puggle's spines develop, the mother makes a burrow as a nursery for it and returns every five or so days to suckle the young. About 240 days following conception, the young echidna will have developed a full set of spines and is ready to leave the burrow. The life expectancy of an echidna is thought to be 10-16 years.

A clear indication that you are in the territory of an active echidna is the presence of fresh diggings with clear 'nose pokes' into the soil. Echidnas are excellent diggers and are regarded as 'ecosystem engineers' by their contribution to the improvement of soils. The echidna snout performs a key role in searching and retrieving prey. Besides having an excellent sense of smell, the tip of the snout contains an extensive system of mechanical receptors sensitive to touch and movement, and electroreceptors capable of detecting sources of electric fields produced by moving prey. Although the platypus has a more extensive system of electroreceptors in its bill, this system of prey detection is extremely rare in mammals. Echidnas have good hearing through most of the range but cannot hear the very high frequencies characteristic of most mammals. Finally, echidna vision is regarded as relatively poor.

The echidna's 15-18 cm long tongue is covered with a sticky saliva. Consistent with a 'tachyglossus', the tongue is rapidly shot in and out to lick up its prey. The tongue is highly specialised, enabling the tip to traverse the complex passages of ant and termite nests. The echidna has no teeth; it grinds its food between two horny plates located on the roof of its mouth and at the base of its tongue.

The echidnas' preferred diet is termites but they will also eat ants, beetles, worms and other invertebrates. Echidnas obtain most of their water from the animals they eat but they will occasionally drink from pools or lick droplets of water from plants.

The echidna has an impressive array of sharp spines covering its back and sides. These spines can be raised under muscle control, providing an effective form of defence from predators.



Image: Rob Shepherd

The success of the short-beaked echidna within the Australian environment is due to multiple factors including the ability to occupy a wide range of habitats, and the protection offered from its many sharp spines. While probably not as susceptible to population decline due to climate change compared with other native animals, habitat destruction, fires and car-related deaths are major threats to the species. Anyone that has observed an echidna crossing a road will appreciate they have absolutely no road sense! We have a collective responsibility to ensure this unique mammal continues to thrive in our environment.

References:

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- Mills, D. *Review of current knowledge of the evolution and function of the echidna auditory system*, unpublished, 1999.
- Proske, E. *Echidnas on the nose*, Nature Australia Summer, pp 58-63, 1997-98.

AUTUMN ORCHIDS

Margaret MacDonald and Alison Watson

The beautiful pink shades of the Hyacinth Orchids, *Dipodium roseum*, are still brightening up the bush in many areas.



The Horned Orchids, *Othoceras strictum*, have fertilised, with the swollen ovaries indicating the presence of many seeds

A few Flying Duck Orchids, *Caleana major*, and Small Duck Orchids, *Caleana minor*, may still be seen.

The first autumn orchids usually seen each year are the Midge Orchids, *Corunistylis* species, and it is pleasing to record that the Sharp Midge Orchid, *C. despectans*, is in flower along No 2 Rd, and a few Bearded Midge Orchids, *C. morrissii*, are already in flower along Forest Rd where the roadside verge has been recently slashed. Fringed Midge Orchids, *C. ciliata*, are still to appear, so keep your eyes peeled. There will be more of these Midge Orchids appearing as autumn progresses.



Sharp Midge Orchid



Fringed Midge Orchid



Bearded Midge Orchid

The Autumn Bird Orchids, *Chiloglottis curvoclavia*, are producing tiny leaves and with a little rain, buds should start growing soon.



This time last year the first Parsons Bands Orchid, *Eriochilus cucullatus*, was observed flowering along Forest Rd, but as yet this species has not been noticed this year. The first greenhoods Tiny Greenhood, *Pterostylis parviflora*, and Brown-tipped Greenhood, *P. clivosa*, should have their rosettes appearing soon.

A few things to look out for in the next couple of months – by April we'll be looking for the heart-shaped leaves of the Mosquito Orchid, *Acianthus pusillus*, and the Fringed Hare Orchids, *Leporella fimbriata*. Look for their elliptical, green single leaves with red veins.



The Autumn Greenhood, *P. ampliata*, should appear after good autumn rains and Banded Greenhoods, *P. sanguinea*, will start to appear in May. We are hopeful that autumn rains will help all our orchids – the bushland is just so very dry at the present time. One wonders just how these fragile flowers push their way through the compacted soil.

All of our orchids are documented and photographed in Orchids of the Anglesea District, unfortunately now out of print. We can assure you a new edition is well on its way to publication. It is currently in the hands of the publisher. Please make sure you let us know of any unusual sightings you have.

Margaret MacDonald margmac@icloud.com
Alison Watson alisonw577@gmail.com

IT TAKES A COMMUNITY TO RAISE A CHICK!

Bron Ives

Friends of the Hooded Plover Surf Coast

Recent Hooded Plover breeding seasons on the Surf Coast have been of mixed success. There were two fledglings in 2018/19, three fledglings in 2019/20 and only one fledgling last season, 2020/21. This season the count is hopeful – one chick has fledged, two chicks are at week two of the five weeks needed to start flying, and one pair have just started incubating eggs.

The chick that fledged at 98W Pt Roadknight in late January resulted in a few firsts – the season’s first fledgling on the Surf Coast and the first for Pt Roadknight in five years. When the chick first emerged the alert went out to the community and volunteers. ‘Bird boards’ went up at beach entries, rosters were organised and volunteers headed to the beach to observe the birds, their threats and to speak with the public from morning until evening for the next 35 days. The hoodie parents and volunteers did a great job and the young fledgling was even seen doing some ‘foot-trembling’ – a behaviour to get insects to move in order to reveal their location before being eaten.

However, this year something was noticeably different – the immensity of community concern and support for the family hit new heights. Last year support was fairly good, but this time around almost everyone took on the challenge and assumed ‘ownership’ for the chick’s wellbeing. It was quite amazing – walkers leashed their dogs the moment they spotted the signs and numerous people were content to alter their regular dog walking routes and head to stretches of beach where there were no breeding birds. The other really promising sign was that many local beachgoers were keen to report they had passed on the message about the chick to visitors and newcomers. There were also far fewer people that were grumpy about the temporary inconvenience. The local community continues to watch out for the fledgling as it hones its flying skills. For now, it remains in the company of its parents but may well soon leave to flock with other birds.



Collectively, the eight local breeding pairs have had about 20 nests this season. The Moggs, Fairhaven, Pt Addis and Torquay pairs all battled adverse weather, crowds and the ongoing threat of being chased by dogs. Sadly, the pair at Moggs lost their latest eggs a day before hatching; dog paw prints were throughout the enclosure right up to the nest.

The Red Rocks, Pt Addis birds and chicks are benefitting from the temporary dog exclusion zone, a first for this site managed by Parks Victoria. Last season this pair had the only fledgling on the Surf Coast, it was flagged ‘BZ White’ by the BirdLife Team in Feb 2021. Since then we hadn’t sighted it locally or had any reports about it from elsewhere, until recently when we got the great news that there were sightings of BZ at Gunnamatta on the Mornington Peninsula late last year.



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It's been a pretty tough few years for our hoodies, yet the few fledglings that are getting through are adding to the increasing Hooded Plover numbers across Victoria. Things are turning around because of the work of BirdLife Australia and community efforts. The Great Ocean Road Coast and Parks Authority (GORCAPA), Parks Vic, the Surf Coast Shire, The Department of Environment, Land, Water and Planning (DELWP) and the Anglesea Police all contribute significantly, patrolling the beach regularly this season. Firm friends such as Angair, Aireys Inlet and District Association (AIDA), Friends of the Eastern Otways (FEO), the Surf Coast Times, the Community Garden 3231 and the Anglesea and Fairhaven Surf Life Saving Clubs remain steadfast. Other supporters include the Aireys Inlet Hall Committee and Geoffrey Carran who painted the stunning hoodie mural, and the Dynasoarers – members of the local Hang Gliders Club – who were careful not to fly above the nests.

People are well on the way to really understanding what is needed to share the hoodies' home with them – this bodes well for both hooded plover numbers and community strength.

Thank you everyone.



* All photos taken by Bron Ives in line with BirdLife Australia's 'Guidelines for Photographing Beach-nesting Birds'.

** Keep an eye out for the Pt Roadknight Hooded Plover family when it appears in a story on 'The Pet Rescuers' on Channel 9 later this year.

ANGAIR REMEMBERS JUDY BARKER, 'The Daisy Lady'

Bill McKellar

Angair is saddened to learn of the recent death of our friend and mentor Judy Barker, and extends its condolences to her family.

Angair was indeed fortunate when Judy, Lee and their family came our way and built a holiday home in Fairhaven. After they joined Angair in 1977, Judy took every opportunity to accompany Mary White on exploratory walks in the bush and learnt a great deal. Mary asked Judy to hold a regular stall at the annual Wildflower Show selling seedlings of difficult-to-grow species and advising on their cultivation. Judy generously donated the proceeds to Angair.



After their home was destroyed in the 1983 fires, the Barkers rebuilt on the same site and Judy participated in the Anglesea Regeneration Study led by Margaret Wark.

Angair has benefited greatly from the knowledge Judy gained through her long and active involvement with the Australian Daisy Study Group identifying, propagating and cultivating Australian daisies. During her 29-year commitment to the group, Judy was involved in writing and editing three excellent books on Australian daisies. The Angair Propagation Group was established in 2003 and was honoured when Judy became a regular participant when in Anglesea. Humble, highly qualified, skilled and with a passion for growing plants and sharing her knowledge, she was a great asset to the group. Its success in germinating the sometimes unreliable Velvet Daisy Bush, *Olearia pannosa*, was due to her insistence that only plump seeds be sown.

Judy was elected to honorary life membership of Angair in 2010.

We are thankful that such a special person touched our lives.

A TALE OF CATS AND DOGS

Sally White

The Wild Otway Initiative recently granted nearly \$20,000 to the Conservation Ecology Centre at Cape Otway to employ feral cat detection dogs. Detection dogs are being increasingly used as conservation scouts doing jobs such as seeking out environmental weeds in the Victorian High Country. Zoos Victoria uses them as a minimally invasive way to identify the presence of endangered animals.

The Conservation Ecology Centre will use its dog to research the details of the feral cat population in the Otways, so helping to develop effective management plans.

Meanwhile, closer to home, The Surf Coast Shire has released its 2022-25 Domestic Animal Management Plan. While the council did not change the existing domestic cat curfew (8 pm – 6 am), it did commit 'to investigate and make recommendations on the option to extend the ... curfew' as a survey of the shire's residents found 55 per cent were in favour of imposing a 24-hour curfew.

The shire reported that residents' requests for council action on cat control rose steadily from 2018-19 to 2020-21. In the last year cat control requests exceeded those about barking dogs for the first time.

Council also committed to doubling the number of cat cages for residents to trap roving and unwanted cats. The cages are available free for two weeks. If you want one, you can ring 5261 0600 to arrange delivery.

FOUR LOCAL BEAUTIES

Margaret MacDonald

Four species of *Comesperma* grow in the Anglesea district. An endemic Australian genus of approximately 30 species, *Comesperma* are small perennial shrubs, subshrubs or twiners. The name combines come – hair of the head – and sperma – seed, referring to the tuft of hairs on the seeds of most species. They are of the Polygalaceae family.

Flowers of the *Comesperma* look superficially like those of the pea family but there are some significant differences. Leaves are alternate and simple, and the inflorescence is held in a raceme at the end of the flowering stem. There are five unequal sepals with one pair enlarged and often petal-like and three smaller sepals. There are three or five petals with the lower petal lobed or pouched.

Love Creeper, *Comesperma volubile* (*volubilis* = twining): The most widespread of the four species, this attractive twiner can be found in woodland and heathland areas. Not apparent for most of the year, racemes of tiny blue flowers appear on slender stems in early spring and can often be seen extensively draped overhead. Love Creeper is almost leafless.



Image: Margaret MacDonald

Heath Milkwort, *Comesperma ericinum* (*ericinus* = like the genus *Erica*): Flowering in spring, the purplish-pink flowerheads of this erect slender shrub are conspicuous among the other heathland vegetation where it can grow about 90 cm high. It is uncommon in the area. Racemes of flowers are found on the end of the main stem and on the side branches. Leaves are found along the stems.

Blue-spike Milkwort, *Comesperma calygea* (*calygea* = with a large cover):



Image: Margaret MacDonald

This is a stiff, erect small subshrub that grows in heathland and arises annually from a rhizome. It bears a raceme of deep blue flowers on the top of the flower stems that grow to about 30 cm tall. The leaves are usually found in the lower section of the flowering stem. This species is widespread and quite common.

Small Milkwort, *Comesperma polygaloides* (*polygaloides* = resembling *Polygala*):



Image: Ellinor Campbell

A small colony of this subshrub that grows to about 30 cm high was found in summer 2017 at Pt Addis after having been missing from the area for a long time. It usually has a single stem with pink to mauve butterfly-like flowers held in a terminal raceme. The small leaves are greyish-green with a bluish tinge. It arises annually from a rhizome. As this species is listed as vulnerable in Victoria and also listed on the Victorian Flora and Fauna Guarantee Act 1988, the discovery was very significant and exciting.



Image: Alison Watson

WHAT'S IN A NAME? BLUE GUM

Neville Millen

This past summer I have been entertained by a large flock of noisy, screeching Musk Lorikeets feasting for weeks on the abundant, nectar-producing white flowers on my Blue Gum. It is the first time the tree has produced a mass of flowers and I estimate it is 10 years old and about 10 metres high. Within six metres of the Blue Gum is a large Messmate, *Eucalyptus obliqua*. The genus name derives from the Greek eu meaning 'well' and kalypto meaning 'to cover or conceal' – describing the woody gumnut fruits of the genus covering the seeds. The Latin meaning, *obliqua*, refers to the uneven angle at the top of the leaf. The Messmate tree produces even more profuse flowers, yet the Musk Lorikeets ignore its flowers, staying fixated on the large white blossoms of the Blue Gum and picking off the whitish warty operculum or cap to get to fresh flowers, and in the process littering the caps over my lawn.

It prompted me to wonder why so many gums are called 'Blue Gum'? The first historical specimen of what later became the quintessential Blue Gum was collected by French botanist Jacques Labillardiere in 1792 at Recherche Bay, Tasmania, as part of the d'Entrecasteaux expedition. He later described the species botanically in 1800 and emphasised the long sickle-like deep-green leaves, the white flowers encased in large warty buds and the brown spherical nuts that encased the seeds. He called the specimen, *Eucalyptus globulus* (Latin meaning 'globe or small sphere' referring to the large fruits of this species).



Eucalyptus globulus
by C Dien (1798), Paris, Wellcome collection.



Botanical drawing of Blue Gum
(origin unknown)

Nearly a century later in 1880 the eccentric Prussian, Baron Von Mueller, the State Botanist for the colony of Victoria, wrote an 18-page treatise on the virtues of *E. globulus*. He even had a coat of arms made for his newly bestowed German Barony, showing a gold field with two entwined Blue Gums. Von Mueller in his expeditions across New South Wales (NSW) and Victoria noted that subspecies of Blue Gum occurred in Gippsland and in the central part and southwest of the state. Today there are four identified subspecies of *E. globulus*. All subspecies have creamy white flowers and long, dark green leaves often up to 35 cm in length. The trees vary in height from 30 metres to 60 metres depending on topography.

The subspecies are defined on the following page.



Buds and fruit of Tasmanian Blue Gum

Tasmanian Blue Gum, *Eucalyptus globulus* subsp. *globulus*,

with sessile, or direct, attachment of flower to leaf stalk, producing large single, warty, ribbed flower buds. Range: Northern Tasmania, King Island, SW Victoria.



3-budded umbels
(By Geekstreet - Own work)

Victorian Blue Gum, *Eucalyptus globulus* subsp. *bicostata*,

with sessile attachment of flowers and fruits, rather than a peduncle (foot or stalk containing the flowers}. It produces groups of three flower buds and smaller fruits. Range: from NSW southern highlands to the Pyrenees Range in North Central Victoria.



Maiden's Blue Gum
(From Atlas of Living Australia)

Maiden's Gum, *Eucalyptus globulus* subsp. *maidenii*,

a species that honours NSW 19th century botanist Joseph Maiden who did a revised classification of the *Eucalyptus* genus in Australia. It has flattened peduncles producing flower buds in clusters of seven, with small fruits. Range: Southeast NSW and East Gippsland.



Buds of Southern Blue Gum

Victorian 'Eurabbie' or Southern Blue Gum, *Eucalyptus globulus* subsp. *pseudoglobulus* (false

globulus) has short, flat peduncles producing three flower buds and medium warty waxy fruits. Range: Gippsland and pockets along coastal Victoria.

After some research I now claim my Blue Gum as *E. globulus* subsp. *pseudoglobulus*. My neighbour across the road has a large *E. globulus* subsp. *globulus* in her front yard and much older than my tree. I have used her tree to differentiate my own. The investigation on Blue Gum does not end with *E. globulus* and its subspecies. A trip to the Blue Mountains outside of Sydney and Parks NSW literature informed me that the Blue Mountains got their famous blue haze from oil evaporating from the leaves of the endemic Sydney Blue Gum or Mountain Blue Gum in the area, *E. deanei*, named for Henry Deane, the 19th century government botanist in NSW.

May Gibbs, creator of the famous 'Bush Babies' stories in the 1920s inspired the Sydney Bushwalkers Club and other conservationists to buy land to save the tallest Mountain Blue Gums below her house in Blackheath. They created a forest park to save the giant trees (many 50-plus metres in height) from commercial woodcutters and private landowners cutting down trees in the area.

South Australia calls *E. leucoxylon* (species Latin meaning 'white wood') a Blue Gum because the juvenile leaves have a distinctive glaucous almost pale-blue hue. The species has flowers that range from white to light pink and pinkish-red. Relatives in the Lofty Ranges outside of Adelaide have also shown me creamy yellow flowers of the many *E. leucoxylon* on the property at Longwood.

In Queensland the Forest Blue Gum, *Eucalyptus tereticornis* (the species name refers to the horned caps of the flower buds) gets the 'Blue Gum' moniker because of the distinctive pale bluish-grey colour of the fresh bark after the tree sheds old bark. It is a tree that ranges from North Central Queensland into New Guinea and is a valuable rainforest timber.

There are several eucalypts commonly called Blue Mallee, Blue Box (a Werribee species), and Blue Peppermint. A miniature form of *E. pulverulenta* called 'Baby Blue' claims powdered grey-blue, round juvenile leaves that persist into adulthood. As one can appreciate the Blue Gum has many forms, but in Victoria we are fortunate to have all four subspecies of the originally collected and described 'Blue Gum' to enjoy, if one knows where within the state to look. It is the size of the fruits or gumnuts, and how the gumnuts are attached to the leaf stalks – by peduncle or not – that are the keys to their true identification.

VICTORIAN COMMUNITY PEST MANAGEMENT GROUPS

Peter Forster

Pest plants and animals are a major environmental challenge across Australia. From 1788, with the arrival of the First Fleet, we have introduced many plant and animal species that have caused devastation to our native species. By far the largest impact (by area) on indigenous species has been caused by our farming and grazing industries, not mining or urban development. Much of Australia is now a modified landscape, especially its grasslands both temperate and subtropical. Introduced grass species have dramatically increased fire intensity. On the volcanic plains of western Victoria, Kangaroo Grass, *Themeda australis*, a perennial C4 plant (plants active in late spring and summer) has been replaced by winter active annual and perennial grasses such as Rye, Cocksfoot and Phalaris. These pest threats to our indigenous biodiversity are so great that the Victorian State Government has a biodiversity plan in place to maintain and improve indigenous values,

[Biodiversity 2037 \(environment.vic.gov.au\)](https://www.environment.vic.gov.au/biodiversity-2037)



Phalaris
(photo from Ag Victoria)



Gorse removal: driveway at Giampolo before and after.

In Victoria, major introduced threats to social, agricultural and biodiversity assets include gorse, blackberries, rabbits and serrated tussock. In the Surf Coast Shire the first three listed are prevalent, and serrated tussock is a major issue on farmland to our near north. Gorse is not much of a problem in the Anglesea heathlands but is a major threat on farmland and waterways/roadsides and adjacent land in the Surf Coast Shire and urban development areas around Geelong (e.g. Waurn Ponds). Blackberries are highly invasive in the wetter Otway Ranges and locally at Painkalac Creek and near the Anglesea River. Rabbits first released locally at Winchelsea in 1895 are causing problems in Anglesea, Aireys Inlet and along coastal dunes (as well as most of temperate Australia!).

“**By far the largest impact (by area) on indigenous species has been caused by our farming and grazing industries**”

Not coincidentally there are four State Government funded **Community Pest Management Groups (CPMG's)** in Victoria:

- Victorian Gorse Taskforce (VGT)
<https://vicgorsetaskforce.com.au>
- Victorian Blackberry Taskforce (VBT)
<https://vicblackberrytaskforce.com.au>
- Victorian Serrated Tussock Working Party (VSTWP)
[Victorian Serrated Tussock Working Party](https://victoriannserratedtussock.com.au)
- Victorian Rabbit Action Network (VRAN)
<https://vran.com.au>

These organisations are coordinating community driven action to control pest species.

Each group operates with an executive officer funded by the state government and volunteer community committee members representing landcare groups, local government, catchment management authorities and relevant business and research bodies. For example, the VGT Committee has Landcare, local government, Grasslands Society of Southern Australia and Landmate (Dept of Justice) representatives.

During the past four years Commonwealth White Paper Grants have been directed to these CPMGs. The purpose was to build community capacity and improve how we manage established invasive species across Victoria. The VGT has been delivering projects funded via the white paper. This funding was administered through Agriculture Victoria's Weeds and Rabbits Project
www.weedsandrabbits.com

VGT outcomes from the white paper funding have included the development of the Virtual Extension Officer (VEO) website. The VEO is an easy-to-use, interactive free online tool, designed to help manage three of Victoria's most invasive species – gorse, serrated tussock and rabbits.

Virtual Extension Officer

<https://virtualextensionofficer.com.au/>

The VEO website enables land managers battling one of these species, to replicate their individual situation online and gather relevant control information, in one location, without leaving their homes.



Destruction caused by rabbit warrens

White paper funding also enabled the VGT to employ a Communication, Community Engagement and Extension Officer to build community capacity through community extension services, develop learning resources, engage with key stakeholders and promote the VGT and its cause. Key achievements include online live presentations, collaboration with the CFA on gorse control campaigns, extension services to 30 properties, meeting with key local councils, radio interviews, growing social media platforms and much more.

Other virtual extension tools: The VGT has developed a series of videos to provide land managers with useful information to develop long-term gorse control. Videos cover a basic introduction, a virtual demonstration field day, the science of gorse, gorse control on farm, fire and gorse, gorse and property values and gorse and feral animals,
www.vicgorsetaskforce.com.au/learning-hub/

The VGT also has an annual community grants program for small and sometimes larger projects to initiate coordinated local long-term gorse control. Details of grant opportunities can be found on the VGT website.

VGT (Victorian Gorse Taskforce)
<https://vicgorsetaskforce.com.au>

THE BIG BONESEED PULL

Janet Stephens

Boneseed is a huge threat to our local heathland, capable of covering many hectares in a thick blanket of 2-3 m high scrub, choking everything else. It has been declared a Weed of National Significance. Some of you may have noticed that the area between Camp Road and the Great Ocean Road has become infested with Boneseed after a recent burn.

Angair and the Friends of Eastern Otways (FEO) recently held a Community Weeding Day on 27 February with no fewer than 93 volunteers coming to lend a hand! The many children who came and also worked hard were not even counted. About 2 ha was completely cleared of Boneseed.

Parks Vic kindly gave us the use of their catering van along with two staff members so we could serve morning tea in style. A big thankyou to them and everyone else who came to help.



Angair (Anglesea, Aireys Inlet Society for the Preservation of Flora and Fauna) is dedicated to protecting our indigenous flora and fauna, and to maintaining the natural beauty of Anglesea and Aireys Inlet and their local environments.

www.angair.org.au

Next issue:

Our next issue will be published in June 2022 and will be the winter edition. We welcome any contributions of local, seasonal or general environmental interest.

Send your contributions to:

angair.communication@gmail.com by mid-May and clearly label them 'for Angair Quarterly'.

