

GREETINGS LANDCARERS



Welcome to 2022!

We hope you all had a safe and lovely Christmas and start to 2022. BVL is collectively getting organised to continue our work protecting and enhancing biodiversity in our beautiful region. Our contractors and locality groups are busy keeping the weeds down reducing the impact on native species.

A range of interesting activities are planned for 2022; workshops on water management, native vegetation, pest management, field days, Mothers Day planting, restoration projects at Main Arm, Broken Head, Tallowood and the distribution of some grants to worthwhile projects by local landcare groups and volunteers.

Here's hoping the year opens up so lots of us can get involved.



Staghorn *Platycerium superbum* Clogheen R Merdith

Welcome new BVL Committee Members

We would like to welcome two new committee members

Felicity Watsford and Doug Porter.

Doug is a local landholder who brings expertise in international economics, community reform, government and indigenous relations and people management

Felicity is a long-term, active member of the Ocean Shores\Yallakool Landcare locality group, with wider involvement in Landcare. A visit to the Yallakool Reserve between the Ocean Shores shops and Devines Hill is most worthwhile. Take a pleasant walk through the pathway and restored areas created by this very active Landcare locality group.



BVL life members

BVL Life Memberships to Two Locals!

BVL is pleased to award Life Membership to two stalwart volunteers, Veda Turner and Helen Brown, in recognition of their decades of commitment to BVLs activities on our coast, notably Byron and Suffolk Park beaches and dunes.

Thanks for your strong leadership and coordination.

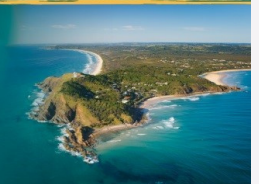
Helen and Veda will remain active members.





Media release

Byron Shire Council



RECYCLED WATER CONNECTION TO SAVE FOUR MILLION LITRES OF WATER

In a Council initiative, the Beach Hotel, Byron Bay has connected to recycled water for its toilet facilities and garden irrigation, which will save an estimated four million litres a year from the region's drinking water supply.

The connection and meter were delivered to the Beach Hotel through Council's Recycled Water Scheme with support from regional bulk water supply authority, Rous County Council, for the hotel's internal plumbing work.

The recycled water pipes are identifiable by their purple colour and onsite signage will indicate to hotel patrons where recycled water is connected and used across the premises.

Council's Director Infrastructure Services, Mr Phil Holloway said Council has supported more than 10 local nurseries, sporting clubs, business and developments to make the switch from potable (drinking) to recycled water.

"On average, up to one Olympic-sized swimming pool of recycled water is being repurposed every 2-3 days via Council's Recycled Water Scheme, which is reducing demand on our drinking water sources," Mr Holloway said.

"Recycled water is clean, safe and cheaper to use than drinking water for specific purposes, such as toilet flushing, garden and landscaping irrigation and washing down of outdoor equipment," he said.

There are four Council filling stations for recycled water available at south Byron (corner of Broken Head and Bangalow Road, near the golf course), Byron Bay Depot (Bayshore Drive), Mullumbimby (recycled water storage ponds at the end of Casuarina Street) and Bangalow STP (Dudgeons Lane). Applications to access Council's recycled water filling stations can be made online at: <https://www.byron.nsw.gov.au/Services/Water-sewer/Sewer/Recycled-water#section-5>



FERAL NEWS

The Great Cane Toad Bust A national event!

Get toad busting and logging your catches.

Before you start, you MUST be confident

cane toad Vs native frog ID. Please read the guide, if you are unsure,

LEAVE IT ALONE!

Cane toad or native frog? – Watergum

<https://watergum.org/greatcanetoadbust/>



Cane toad with eggs



Credit:Feral scan

Native frogs with eggs



Peron's tree frog



Giant barred frog



Burrowing frog

BACK FROM THE BRINK

Seeing 1,000 glorious fin whales back from near extinction is a rare glimmer of hope

Philip Hoare

One thousand fin whales, one of the world's biggest animals, were seen last week swimming in the same seas in which they were driven to near-extinction last century due to whaling.

Conor Ryan, an experienced zoologist and photographer, says this may be "one of the largest aggregations of fin whales ever documented". His estimate of 1,000 animals is a conservative one, he says.

Up to 27m long (Blue whales 33m), fin whales can live for up to 140 years – an astonishing intensity of this eruption of marine life.

At least two million whales were slaughtered in the past century; only now, perhaps, are they returning to old foraging grounds.

<https://www.theguardian.com/commentisfree/2022/jan/17/glorious-fin-whales-extinction-hope-antarctic-peninsular>



Spouts from fin whales near the South Orkney Islands in the Southern Ocean.

Photograph: Conor Ryan



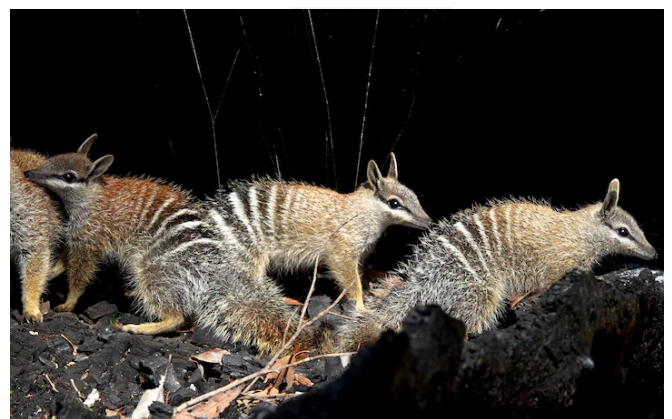
New national park at Dryandra Woodland a win for critically endangered numbat

ABC Great SouthernBy Mark Bennett

A new national park has been created in the heart of Western Australia's Wheatbelt, providing greater security for the future of some of the state's most endangered animals.

The Dryandra Woodland near Narrogin is the natural home of numbats, woylies and western quolls, and is the largest remnant of the original vegetation before it was cleared for broadacre farming.

<https://www.abc.net.au/news/2022-01-17/national-park-at-dryandra-woodland-a-win-for-endangered-numbat/100757204>



Credit: Bill Smart

ONCE FEARED EXTINCT, DIBBLERS ARE BREEDING ON DIRK HARTOG ISLAND

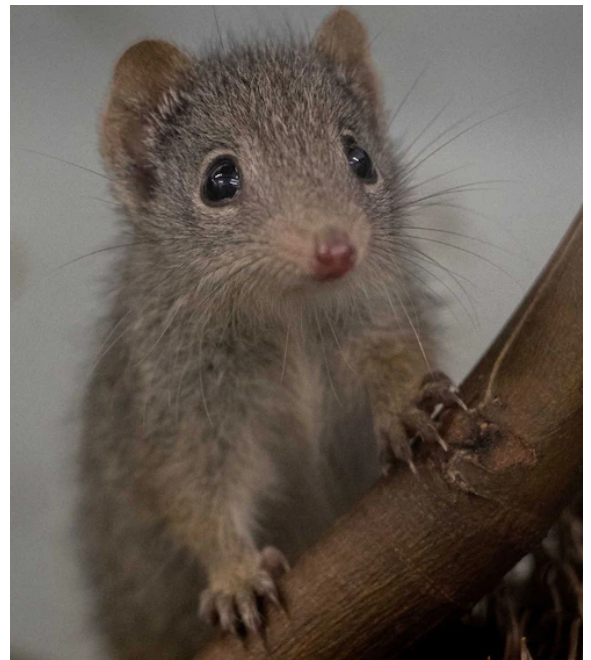
ABC Pilbara By Laura Birch

A dibbler is a small carnivorous marsupial, part of the same family as the quoll and the Tasmanian devil. Dibblers were the fourth species to be translocated onto Dirk Hartog Island as part of the Return to 1616 project.

On October 25, 1616, Dutch explorers landed on the remote island, off the coast of Shark Bay. Over time feral cats, goats and sheep were introduced onto Dirk Hartog Island. The introduction of these animals changed the vegetation and reduced the food and shelter for native species.

With these introduced species now removed and eradicated from the island, an ecological restoration project seeks to return the isle to what it was like before Dutch explorers stepped foot on the land.

<https://www.abc.net.au/news/2021-06-16/dibblers-breeding-dirk-hartog-island-conservation/100219676>



Dibbler joeys in their mother's pouch. (Supplied: Department of Biodiversity and Conservation.)



The Return to 1616 project seeks to return Dirk Hartog Island's ecology to how it was before Dutch Explorers landed on the Isle. (ABC Midwest and Wheatbelt: Chris Lewis)



HOW SCIENCE IS BOOSTING AUSTRALIA'S WATER SECURITY

Scientists and researchers from across CSIRO are developing innovative projects to bank water for future needs.

Jane Nicholson

CSIRO recently launched its Drought Resilience Mission, which aims to reduce the impacts of drought in Australia by 30 per cent by 2030.

Regional Australia bears the brunt of the nation's extreme weather, which is increasing in frequency and severity because of climate change.

Aquifers are natural underground reservoirs, storing water in porous or fractured rock or loose sediments.

Dr Declan Page is a groundwater systems expert at CSIRO working on key Drought Resilience Mission projects.

He's spent more than 15 years working on Managed Aquifer Recharge (MAR) and water banking.

The recharge process can be achieved either by natural infiltration, via a shallow depression in the ground, or injected by pumping it into a deeper aquifer via a well.

<https://www.csiro.au/en/work-with-us/industries/mining-resources/Resourceful-magazine/Issue-25/Water-security>

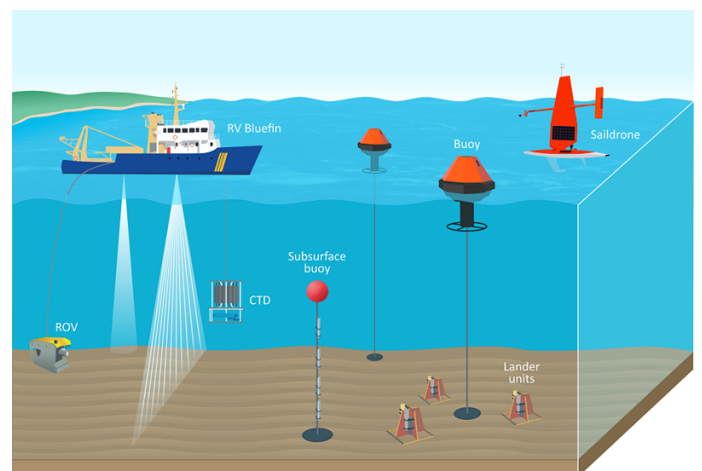


Ethel Gorge in the Ophthalmia Basin is an environmentally important area south of the MAR assessment region in the Pilbara. A threatened ecological community (TEC) of stygofauna lives in the groundwater. BHP works with the WA Department of Biodiversity, Conservation and Attractions to closely monitor the water levels and salinity of the aquifer to ensure that the stygofauna community is not harmed by either water extraction or disposal. Image: DR OLGA BARRON

DEVELOPING BEST PRACTICE MONITORING METHODS FOR OFFSHORE CARBON SEQUESTRATION.

Ruth Dawkins

Carbon capture and storage (CCS) in rocks of the offshore continental margins is an exciting and rapidly expanding area of opportunity. A recent CSIRO project focused on developing robust measurement and monitoring approaches to provide assurance of subsurface CO₂ storage. Monitoring CCS locations will be key to commercial scale operations to assure society that CO₂ is safely stored. The findings of this research will help to inform the establishment of monitoring, measurement and verification approaches at future carbon capture and storage sites in shallow coastal areas. <http://w.csiro.au/en/work-with-us/industries/mining-resources/Resourceful-magazine/Issue-25/Marine-CCS>



CLIMATE

SEEDS OF BEAUTY LEAF TREE EXAMINED AS SOURCE OF LOW-EMISSIONS BIODIESEL

ABC Jasmine Hines

As Australia pushes forward in its net zero emissions commitments, some believe the key to a greener fuel could be hidden in the oil-rich seeds of the native beauty leaf tree.

Bioenergy is when low-emission electricity is extracted from waste, with fuel sources often coming from the agricultural and forestry industries.

But CQ University researcher Nanjappa Ashwath says he has found the beauty leaf tree, or *Calophyllum inophyllum*, can be grown on marginal land, ending the food-versus-fuel land-use debate that has plagued the biofuel sector.



Researcher Ashwath Nanjappa with bio liquor. Credit CQ University

<https://www.abc.net.au/news/2022-01-11/native-beauty-leaf-tree-seeds-could-be-green-future-biodiesel/100742776>

DECARBONISATION TECH INSTANTLY CONVERTS CO2 TO SOLID CARBON

Researchers have developed a smart and super-efficient new way of capturing carbon dioxide and converting it to solid carbon, to help advance the decarbonisation of heavy industries.

The carbon dioxide utilisation technology from RMIT researchers is designed to be smoothly integrated into existing industrial processes.

Decarbonisation is an immense technical challenge for heavy industries like cement and steel, which are not only energy-intensive but also directly emit CO₂ as part of the production process.

The new technology offers a pathway for instantly converting carbon dioxide as it is produced and locking it permanently in a solid state, keeping CO₂ out of the atmosphere.

<https://www.rmit.edu.au/news/media-releases-and-expert-comments/2022/jan/decarbonisation-tech>



<https://www.youtube.com/watch?v=yOo0zmHUdkE&t=11s>

Liquid metal instantly converts CO₂ to solid carbon | RMIT University - YouTube

REGENERATIVE AGRICULTURE

SOILCARE - TROPO COVER CROP & IPM FARM WALK - ARNETT FARM_2021 ON VIMEO

The focus of this field day was:

- cover crop establishment,
- demonstration of a direct drill planter,
- cover crop species selection and under-tree ground cover, Dichondra, for trunk flow amelioration during rain events.

Speakers for the field day included:

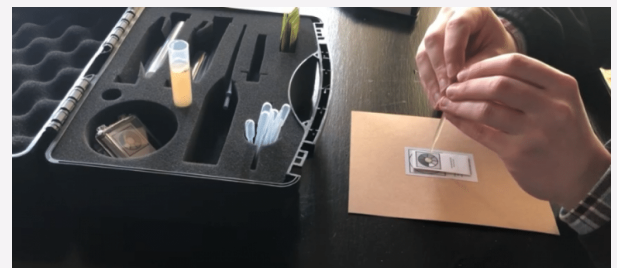
- Dave Forrest, organic farmer & educator.
- Richard Llewellyn, Bio-Resources and BioResEd.



<https://vimeo.com/661716741>

MEASURING MICROBES A STEP TOWARD SOIL HEALTH

Dr. Judith Fitzpatrick and her product, microBIOMETER, are changing the world of soil testing, making healthy soil a goal that any farmer can accurately measure and work toward achieving. The inception of microBIOMETER occurred when Fitzpatrick saw a gap in traditional soil quality testing, which typically analyzes soil content and chemical volumes without giving special attention to microbes and their impact. Her goal was to build a tool that was low cost to manufacture, user friendly and highly accurate.



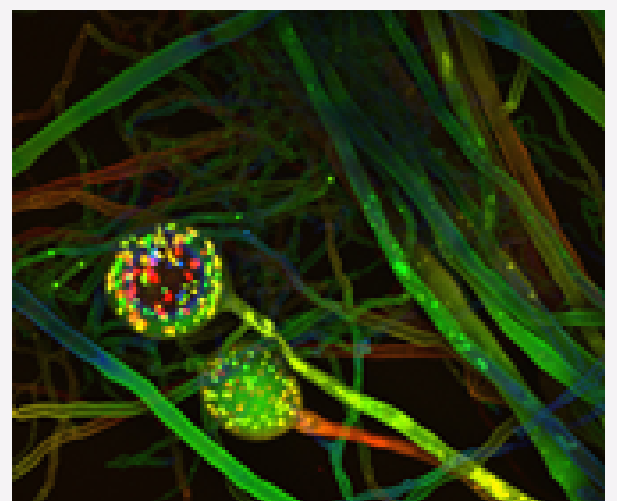
<https://www.ecofarmingdaily.com/measuring-microbes-a-step-toward-soil-health/>

UNDERGROUND AMAZON FORESTS: WHY SCIENTISTS WANT TO MAP THE WORLD'S FUNGI

Vast networks of microscopic, underground fungi serve a crucial role in Earth's ecosystems — and there's a lot we don't know about them.

Now, a team of scientists is launching a first-of-its-kind effort to map the world's mycorrhizal fungi, a process they hope can identify fungal biodiversity for conservation, grow understanding of how these species interact within ecosystems and keep more carbon in soil.

<https://www.nbcnews.com/science/science-news/amazon-forests-underground-scientists-want-map-worlds-fungi-rcna7899>



EVENTS AND SEMINARS



Koala Tree Planting
Saturday 12th Feb 2022

Time 9.00am start
Where Rosebank - **1510 trees**
RSVP Bookings and Proof of Vaccination are essential due to COVID. Email to book your place today at:
president@bungalowkoalas.com.au




KOALAS FOREVER
A REGENERATE AUSTRALIA PROJECT



Planning, Industry & Environment





Koala Tree Planting
17-18th March 2022

Time 9.00am start
Where Ettrick - **10020 trees**
RSVP Bookings and Proof of Vaccination are essential due to COVID. Email to book your place today at:
president@bungalowkoalas.com.au




KOALAS FOREVER
A REGENERATE AUSTRALIA PROJECT



Planning, Industry & Environment





Koala Tree Planting
Sat 12th March 2022

Time 9.00am start
Where Meerschaum Vale - **3235 trees**
RSVP Bookings and Proof of Vaccination are essential due to COVID. Email to book your place today at:
president@bungalowkoalas.com.au




KOALAS FOREVER
A REGENERATE AUSTRALIA PROJECT



Planning, Industry & Environment





Koala Tree Planting
Friday 1st April 2022

Time 9.00am start
Where Dyraba - **4470 trees**
RSVP Bookings and Proof of Vaccination are essential due to COVID. Email to book your place today at:
president@bungalowkoalas.com.au




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WEED OF THE MONTH

Japanese honeysuckle *Lonicera japonica*

Robust scrambler or climber that smothers and out-competes native vegetation and prevents the regeneration of native species. It has become a serious weed in moist gullies, forests and bushland.

Toxicity

Japanese honeysuckle is toxic to humans, causing discomfort and irritation but is not life threatening. The berries and leaves are poisonous if ingested, causing gastro-intestinal irritation. It is also a skin irritant causing rashes on contact with the plant.

What does it look like?

Japanese honeysuckle is a semi-deciduous shrub, climbing or scrambling to 10 m high.

Leaves are opposite along the stem, oblong to oval shaped and up to 8 cm long and 4 cm wide.

Flowers are fragrant, two-lipped, the wider upper lip having four small lobes and the lower lip with a single lobe these flowers are initially white or pinkish tinged, but turn cream or yellowish as they age its fruit are shiny black berries (5-10 mm long).

Fruit are oval shaped, black when ripe and up to 1 cm long.

Control

Cut scrap paint: 1:1 Glyphosate + 1g Metsulfuron methyl / 1L water

Foliar spray: 1:50 Glyphosate + 1g Metsulfuron methyl / 10L + penetrant / surfactant like Pulse

<https://weeds.dpi.nsw.gov.au/Weeds/JapaneseHoneysuckle>



Credit: Auld & Medd



Weedwise QLD government



Weedwise QLD government

WORKING BEES

-Why not get out and get involved in one of our local groups?

For all Landcare Working Bees please wear protective clothing - long pants, long-sleeved shirt, closed-in shoes, hat, gloves and bring water, sunscreen, and insect repellent. Please always contact the group co-ordinators before attending a working bee as plans do change!

Bangalow Land and Rivercare, Bangalow

WHEN: every Saturday 8:30am

WHERE: find out from

CONTACT: Noelene Plummer bangalowlandcare@gmail.com 0431200638 66874470

Green and Clean Awareness Team, Byron Bay

WHEN: 3rd Sunday of the month 9:00am

WHERE: Meet Main Beach, Byron Bay

CONTACT: Veda Turner vedaturner@gmail.com 0427 857 991

Heritage Park Landcare, Mullumbimby

WHEN: Saturdays 9:00am – 11:00 am

WHERE: Heritage Park, Mullumbimby

CONTACT: Diana Hughes bromspot@gmail.com

Jinangong Landcare, Ocean Shores

WHEN: 1st Sunday of the month

WHERE: The Tunnel Road, Ocean Shores

CONTACT: Ian Parer ianparer@hotmail.com

Mullum Town Landcare, Mullumbimby

WHEN: last Sunday of the month

WHERE: find out from John Tann

CONTACT: John Tann johntann99@gmail.com

Ocean Shores Landcare, Ocean Shores

WHEN: each Friday at 8.30 – 11.00 am (8.00am DST)

WHERE: corner of Yallakool Drive and Warrambool Road, Ocean Shores

CONTACT: David Kemp dnkemp77@gmail.com 0427 650 861

Tallowood Ridge Locality Landcare, Tallowood Ridge Mullumbimby

WHEN: Second Saturday of the month from 3pm (winter), 4pm (summer).

WHERE: Gathering Tree Pocket Park, Cockatoo Cres Tallowood Ridge Estate

CONTACT: Joanne McMurtry jmcmurtry@bigpond.com

South New Brighton Dunecare

WHEN: 1st Friday of the month 1:30pm - 4:30pm

WHERE: Meet at southern end of the Esplanade at the Strand beach access point.

CONTACT: Robyn Bolden robyn.bolden@optusnet.com.au 6680 1970

Suffolk Park Dunecare

WHEN: 1st Saturday of the month

CONTACT: Helen Brown hellyh@bigpond.com 6685 4964

Tyagarah Landcare

WHEN: Each Thursday 9:00am – 11:00am

WHERE: 23 Prestons Lane, Tyagarah

CONTACT: Bela Allen bela_allen@yahoo.com 6684 7113

Can't find a group near you? We have many other groups who meet on an ad hoc basis (contact us for more details) or if there isn't an existing group in your neighbourhood or you are interested in looking after a particular area, BVL can help you to form a locality group under the BVL umbrella.

LINKS

- Arakwal <http://arakwal.com.au/>
- Border Rangers Alliance http://www.greasternranges.org.au/border_ranges/overview/overview
- Bangalow Koalas <http://www.bangalowkoalas.com.au/>
- Bangalow River and Landcare <http://www.bangalowlandcare.org.au/>
- Big Scrub Landcare <https://www.bigscrubrainforest.org.au/>
- Brunswick Valley Landcare <http://www.brunswickvalleylandcare.org.au/>
- Byron Bird Buddies <http://www.byronbirdbuddies.com.au/>
- Byron Community College <http://www.byroncollege.org.au/>
- Byron Shire Council <http://www.byron.nsw.gov.au/>
- EnviTE www.envite.org.au
- Environmental Trust <http://www.environment.nsw.gov.au/grants/envtrust.htm>
- Friends of the Koala www.friendsofthekoala.org
- Federal Landcare Inc federalandcare@gmail.com
- Local Land Services www.northcoast.lls.nsw.gov.au
- North Coast Local Land Services <http://northcoast.lls.nsw.gov.au/>
- Border Ranges Richmond Valley Landcare www.brrvln.org.au
- Mullumbimby Community Gardens <http://mullumcommunitygarden.wordpress.com/>
- North Coast Nature <http://www.northcoastnature.org.au/>
- Richmond Landcare Inc. <http://www.richmondlandcare.org/>
- Rous County Council (formerly Far North Coast Weeds) <http://rous.nsw.gov.au/>
- Soilcare http://www.soilcare.org_
- Tweed Landcare Inc. <http://www.tweedlandcare.org.au/>
- Wilson's Creek Huonbrook Landcare <http://www.wilsonscreeklandcare.mullum.com.au/>

**For information about Landcare or other natural resource issues in Byron shire please contact
Landcare Support Officer, Alison Ratcliffe 6626 7028
(Mon, Tues, Wed)**

aratcliffe@byron.nsw.gov.au

Project Officer, Rochelle Merdith 6626 7201 rmerdith@byron.nsw.gov.au

www.brunswickvalleylandcare.org.au

