



NOVEMBER 2021

LANDCARE IN FOCUS



Bob Hawke Landcare Award Winner Andrew Stewart
Celebrating landcare and recognising individual excellence in sustainable agriculture



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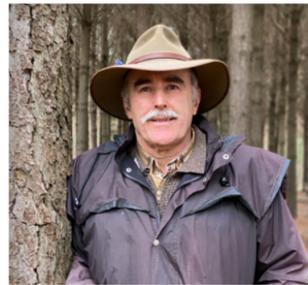
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Cover Photo: **Bob Hawke Landcare Award Winner Andrew Stewart**
Celebrating landcare and recognising individual excellence in sustainable agriculture. Credit Annette Ruzicka

Landcare Australia is proud to acknowledge Aboriginal and Torres Strait Islander Peoples as the Traditional Custodians of the Country on which we live and work. We value and respect their deep and continued spiritual and cultural connections to the land, waters, seas and sky, and pay our respects to their Ancestors and Elders past, present and future.

Editor: Stephen Milton - Landcare Australia
Designer: Dani Lane - ACM

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THIS YEAR HASN'T BEEN EASY, BUT IT HAS BROUGHT OUT THE BEST IN ALL OF US

**HON DAVID LITTLEPROUD MP,
MINISTER FOR AGRICULTURE AND NORTHERN AUSTRALIA**

I am so pleased the Landcare conference was a success. We were all disappointed not to attend in person, but the event was again a wonderful opportunity for knowledge sharing. The enthusiasm and passion shown by the entire Landcare community is inspiring.

The Landcare awards have been an important event for more than 30 years, and this year was more ambitious than ever, with a record number of participants. The award nominees always set a high standard, and again this year truly captured the spirit of the movement.

I announced this year's winner of the Bob Hawke Landcare Award as Mr Andrew Stewart.

Andrew is a fourth-generation farmer from Victoria's Otway Ranges and his commitment to delivering the Yan Yan Gurt Creek Catchment community revegetation program, which is restoring nearly 18m of creek frontage and forming a wildlife corridor connecting several farms, is truly impressive.

Andrew has also brought together more than 5,000 people on his farm, to show what is possible and educate them

about sustainable land management. This combination of on-ground results and an ability to bring the community together and look to the future really demonstrates the Landcare ethos.

This year's finalists, Justin Kirby and James Walker, are also delivering outstanding contributions to farming and their communities, showcasing the true depth, dedication, and knowledge of the Landcare movement.

The nominees and finalists brought communities with them on their journeys and demonstrated how

important cooperation, partnerships, and determination are to the future of Landcare. Congratulations once again to all our nominees, finalists and winners.

The awards, and more importantly the people and communities behind the success of awards such as these, are why the Australian Government has invested over \$1 billion under phase two of the National Landcare Program.

I look forward to celebrating all things Landcare at the next National Landcare Conference, scheduled for August 2022.



THE CHALLENGES AHEAD WILL ONLY MAKE US STRONGER

**DR SHANE NORRISH,
CEO LANDCARE AUSTRALIA**

After a series of rescheduled dates and delays, the 2021 National Landcare Conference finally took place in August - and I think all who attended will unanimously agree it was worth the wait.

Observing the necessary public health and safety restrictions, it was ultimately decided to host the entire conference on a virtual platform, offering a multitude of logistical challenges.

However all involved, from organisers to technical coordinators, from panelists to speakers, pulled together in an

extraordinary example of Landcare solidarity and delivered a landmark event which reflected not only the heritage of the Landcare legacy but the future of the movement in an ever-evolving modern Australian society.

Also taking place during the event, the 2021 National Landcare Awards recognised our most passionate and dedicated landcarers making incredible strides in the fields of sustainable agriculture, conservation and Cultural Land Management. Congratulations to all the winners and nominees for their

inspirational work, representing the best of the Landcare community and encouraging a new generation to follow in their footsteps because we need you now more than ever.

It's two years since some of the worst bushfires in recent history left a huge impact on the Australian landscape and the recovery of habitat and communities is ongoing. With the work and projects supported by the Landcare Led Bushfire Recovery Grants, funded by the Australian Government's Bushfire Recovery Program for Wildlife and

their Habitat, landcarers are making a tremendous difference with on-ground activities and enduring solidarity. But there's still so much more to be done.

The enduring effects of extreme conditions will continue to present immense challenges ahead in the preservation and protection of our natural resources but I am certain the Landcare movement will continue to demonstrate our combined resolve to overcome those same challenges and strengthen the resilience of local communities.



Bees between the mustard. Supplied

BRINGING LIFE AND DIVERSITY TO THE LAND WE LOOK AFTER

On the first day of Spring, Rebecca Zentveld, owner of Zentveld's Coffee Plantation and Roastery, located on 15 hectares in Northern NSW, witnessed an eruption of colour between the rows of mature coffee plants on her trial multi-species cover crop plot.

The field pea and vetch, among the mix of legumes, cereals, radish, buckwheat and broadleaf, sown in June were bursting with hot pink and purple flowers. The cover crop trial, led by Dr Terry Rose from the Faculty of Science and Engineering at Southern Cross University, is delivered by the Regenerative Agriculture Alliance

in partnership with the Australian Macadamia Society, and the Australian Subtropical Coffee Growers' Association. This project is one of one of eight industry-led soil research projects which aim to quantify the benefits of regenerative agricultural practices in restoring soils across Australia over three years.

However, it wasn't just the riot of colour that lifted Ms Zentveld's spirits. "We found that two native grass species were showing up in the rows where we had planted cover crops the previous year. Bringing in more biodiversity by planting our 7-9 cover crop seed mix has allowed the right conditions for our dormant native grasses to thrive, which is very exciting."

"It was a moment of joy in our regenerative farming journey; bringing life and diversity to the land we look after."

The eight soil research projects are funded by a \$2.5 million grant from the Australian Government Department of Agriculture, Water and the Environment. The grant funding is from the Building Landcare Community and Capacity Program (BLCC), which is an element of the National Landcare Program (NLP). BLCC grants are funding a diverse range of projects across Australia which are agriculture-focused, strategic, capacity building initiatives to support the sharing of knowledge and achievements, and promote community leadership.

The 'Multispecies Cover Crops in Subtropical Horticultural Plantations' project, which centres on six farms in Northern NSW, will measure changes in soil health and insect ecology in macadamia, coffee and avocado plantations with either permanent groundcover or annual mixed species cover crops between rows, re-sown continuously following termination with a roller crimper.

Ms Zentveld said she looked forward to welcoming entomologist Dr Christopher Carr on site to inspect insect life.

"It will be interesting to see which pollinators we are encouraging with

the flowers. Measuring our soil biology is equally valuable and we look forward to sharing the details with other Australian coffee growers through Australian Subtropical Coffee Growers' Association meetings and future open field days. Soil results will also be written up into peer-reviewed publications and shared with macadamia, avocado and horticultural networks. The project will measure the soil health parameters such as microbial biomass carbon, fungi and bacteria ratios, total nitrogen, total carbon, and more," she said.

"Lead researcher Dr Terry Rose has been very accommodating and collaborative. He has really listened to what we wanted to achieve."

Lorraine Gordon, founder of the Regenerative Agriculture Alliance and Director of Strategic Projects at Southern Cross University, said: "Farmers have come to the researchers with a problem and farmers, researchers and other important stakeholders collaborate to co-create solutions delivering on-the-ground benefits for farmers, whilst also contributing to a scientific base of knowledge."

For Ms Zentveld, regenerative agriculture is a journey. "We dropped the use of chemicals seven years ago. In that time, it's been wonderful to see the increase in microbial life and soil health. This is the next step in our journey."

"The process of regeneration is an enlightening headspace. We don't just focus on the problems. When we see weeds, we ask 'what is their role?' rather than trying to make our coffee plantation look like a neat park."

This has attracted employees who share this mindset. We have just employed a regenerative agriculture student from Southern Cross University, who is now on board," she said.

For more information about all eight research projects: farmingtogether.com.au/eight-groundbreaking-soil-research-projects-revealed-by-southern-cross/



Bursting with life. Supplied



From left – Christopher Carr (Southern Cross University Entomologist,) John and Rebecca Zentveld, Terry Rose (SCU, Director, Centre for Organics Research)

SNIFFING OUT FERAL ANIMALS ON THE QUEENSLAND COAST

An eight-year-old English Springer Spaniel is proving to be a key feral pest management tool on the more rugged parts of Queensland's coastline.

Rocky has been trained to locate any sign of foxes, feral cats or rabbits and indicates their presence by tail wagging when a scent is detected.

He is part of Southern Queensland Landscapes comprehensive feral animal detection and control service provided to private landholders, government departments and businesses through its Conservation Detector Dog Program.

He was one of the first conservation canines to provide a commercial service by a natural resource management organisation in Queensland.

Recently, Rocky has protected turtle nesting sites from predators such as pigs and foxes, and a critical bilby population from feral cats in south-west Queensland.

Rocky and his handler, Southern Queensland Landscape Pest Weeds and Conservation Dogs Senior Project Officer Tom Garrett, have spent the past year on fox and feral cat detection work from the Gold Coast to Mackay.

Mr Garrett said the advantage of using a dog was the ability to search areas that are difficult to access.

"On the coastal strip, the vegetation can be quite thick sclerophyll rainforest through to coastal dune country so there's lots of low scrub, creek areas and irrigation channels," he said.

"Using a scent the dog can locate dens a lot quicker than 10 people walking in a transect would do."

"Rocky was one of the first detector dogs for foxes and feral cats in Queensland but there are more scenting dogs now being used for quolls, foxes, and feral cats."

SQ Landscapes Conservation Detector Dog program is set to expand with Tom to take charge of a new English Springer Spaniel with the possibility of it being trained to detect diseases in honey bees.

He said the Spaniels were preferred for their excellent hearing, obedience and soft mouth.

For more information on the Conservation Dog Program contact Southern Queensland Landscapes on (07) 4620 0111 or sqlandscapes.org.au/conservation-detector-dog-program



Rocky and his handler, Tom Garrett, have spent the past year on fox and feral cat detection work from the Gold Coast to Mackay. Supplied



Rocky, star of the Conservation Detector Dog Program. Supplied

USING TECHNOLOGY TO SUPPORT DECISION IMPACTING DRYLAND SALINITY



South Australian farmer, Kevin Roberts participated in soil technology project. Supplied

Dryland salinity impacts landholders, consumers and communities causing more than \$270 million in lost production and remediation interventions, and affects more than 2.5 million hectares of Australian farming land.

With funding from the inaugural nbn™ Sustainable Agriculture Landcare Grant, the Meningie East Field Healthy Soils Group, supported by the Coorong Tatiara Landcare Assistance Program, implemented a project to provide technology-driven tools to landholders, farmers and advisors in South Australia's Upper Southeast region. The tools aided these individuals to make decisions about managing salinity impacted landscapes and helped them avoid salinity issues in threatened areas.

The project's research aimed to determine the causes or patterns relating to 'transient' salinity and the environmental or seasonal data which indicates or forecasts dryland salinity processes. Initial findings from interpreting the soil probe data showed that there are two different soil salinity processes occurring

across the region, often in close proximity.

Local farmer and project participant, Kevin Roberts, hopes his legacy from a lifetime of farming will be to improve or reclaim unproductive land while increasing production and leaving his farm in better condition for the next generation.

He feels that having a greater understanding of soil moisture levels, through the use of soil probes, and its impact on salinity impacts is helping him achieve these goals.

"Knowing what's happening under the ground has revealed potential scope for summer cropping and shown the importance of reducing recharge of the areas around the low-lying areas and further reinforcing the need to retain groundcover" Kevin says.

"When you can't control your own decision-making process it can be quite stressful, but this new technology is helping me make well informed decisions which also gives me more flexibility and the capacity to participate more in the community."

REPORT REVEALS LANDCARERS ENJOY A LIFT IN MENTAL AND PHYSICAL WELLBEING

The numbers don't lie - participating in Landcare activities can significantly boost your psychological and physical wellbeing while decreasing your healthcare costs.

For years, Landcarers have described the benefits they get from volunteering in their communities and environment. In 2021, Landcare Australia approached KPMG Australia to quantify the significance of those benefits with research.

The recently published findings by KPMG Australia, in partnership with Landcare Australia, indicate Landcare volunteers do feel better when they get involved in Landcare activities.

For the report, *Building resilience in local communities: The wellbeing benefits of participating in Landcare*, KPMG surveyed more than 1,000 Landcare volunteers and coordinators from Landcare groups. They also interviewed people involved in different Landcare activities.

Forty-six per cent of respondents across the country reported improvements in their mental wellbeing, 93 per cent felt a connection to the land while 90 per cent experienced stronger community

connections. Significantly, 19 per cent had reduced their use of physical health services.

The report revealed Landcare involvement helps individuals save \$403 per year in avoided healthcare costs. For the Landcare movement, exceeding 140,000+ individuals, that equates to \$57million nationally.

Participants who gave more than 100 hours each month reported better mental health, while 43 per cent who spent less

than four hours per month volunteering also noticed a distinct mental health boost.

Fifty-nine per cent of urban Landcarers reported an improvement in their mental wellbeing, compared to 47 per cent in regional areas.

The report addresses additional savings to Landcare volunteers around productivity, and benefits owing to natural disaster resilience and recovery,

with the combined value amounting to \$191million annually.

KPMG Australia generously provided their services pro bono to produce the report and Landcare Australia was delighted to have Federal Environment Minister Sussan Ley present the results at a launch event in Albury, NSW with Holbrook Landcare Network.

You can read or download the report at landcareaustralia.org.au/wellbeing-report/



From l-r: Dr Shane Norrish, Landcare Australia CEO, Federal Minister of Environment, Hon. Sussan Ley MP, Donna O'Neill, KPMG Australia, Doug Humann AM, Chair Landcare Australia, Alison Ratcliffe, CEO, Holbrook Landcare

PROJECT IMPROVES DAIRY HERD'S HEALTH AND THE ENVIRONMENT

Mid-North Coast NSW dairy farmer, Mark Perry, used an a2 Milk™ Sustainable Farming Landcare Grant to help improve the welfare and health of his herd of 150 milkers, while also benefiting the environment and his business.

With high rainfall and the Bellingen River running through his property, muddy quagmires made it difficult to move cattle and caused many to suffer from hoof problems and mastitis.

With livestock prone to health problems due to the mud, Mark was forced to take cattle out of the milking herd while paying higher veterinary costs and purchasing additional medical supplies to treat the cattle, causing a financial hit from lost production and increased costs.

With concerns about the herd's health, he initially tried to gravel the

laneways. But operating on river country, with an extremely high annual rainfall, the gravel didn't hold up.

The solution, funded by the grant, was a combination of cement to pave the laneways and fencing to keep the cattle to the tracks so they wouldn't churn up the mud on either side. This also meant the cattle could easily and quickly move from paddock to milking shed and back again. Mark says this was good not only for the cattle but for the staff who faced a more straightforward task and didn't need to negotiate the mud.

With the work complete, Mark reports that the paved and fenced laneways are making a significant positive impact on the herd's welfare with fewer mastitis and fungal infection cases in their hooves, translating into reduced veterinary costs.



Mark Perry on Perryview, his NSW Mid-North Coast dairy farm.

"The herd's health has improved significantly, so we don't need to take as many cows out of the milking herd, which also makes the dairy more productive.

With the laneway concreted and fenced, there is less erosion in the laneway and nutrient run-off, which has been an environmental benefit overall," said Mark.

BUILDING A CLIMATE RESILIENT SUSTAINABLE BEEF CATTLE ENTERPRISE

MELINEE & ROB LEATHER, 'Barfield Station' Banana QLD

Central Queensland cattle producers, Melinee and Rob Leather are constantly looking to capitalise on market opportunities - they do this by chasing the best available science and technology whilst tracking their performance through benchmarking and data.

Their overall business plan is ensuring that the practices they undertake are continuously improving their bottom line and building a sustainable farm operation that will endure increasingly extreme weather conditions.

The Leathers run a beef cattle finishing operation across three properties in central Queensland spanning 17,000 hectares and running around 4,500 trade head.

As Melinee puts it, "looking after our cattle is important to us and that means making sure we have sufficient supplies of good quality feed and clean water and matching our stocking rate with the carrying capacity of the land and the seasons."

The Leathers use tools like pasture budgeting and Cibo Lab satellite mapping to measure pasture growth and coverage. They have also invested heavily in Leucaena and other legumes to ensure good supply of highly nutritious feed throughout the seasons.

To ensure they have the right type of cattle to suit their tropical environment and seasonal conditions, the Leathers only select bulls with Estimated Breeding Values (EBVs) targeting specific traits, such as polled gene, 200, 400 and 600 day growth rates and days to calving.

Melanie says: "Animal welfare is particularly important to us. We have seen the production and profitability benefits of having stress free cattle with a good quality of life. We undertake low stress stock handling and administer pain relief during animal husbandry practices, with our staff fully trained in all aspects of livestock handling and husbandry."

Utilisation of tools and technology such as pain relief and polled animals, rigorously recording all management and husbandry practices that are audited

annually, the Leathers have been able to access a wider number of lucrative markets, including the Global Animal Partnership and Australian Certified Humane.

The Leathers have committed to aligning themselves with the livestock industry's goal to be Carbon Neutral by 2030. This means:

They have invested in and are utilising solar renewable energy wherever they can.

They are involved in the Queensland Government's Method to Market project to benchmark their on-farm carbon emissions and sequestration.

They are reviewing their herd structure and looking to select animals with higher feed conversion efficiency (resulting in faster turn off rates).

They have planted out 1,000 hectares of Leucaena and are planting an additional 1,300 hectares given its capacity to sequester carbon and reduce methane.

And they have planted out 15 hectares of native tree shelter belts.

They are strong advocates for continuous learning and collaborating in groups. Melinee sits on the Australian Beef Sustainability Framework Steering Group, and is actively involved in Meat & Livestock Australia and Queensland Government led projects. She is also involved in her local Landcare and catchment groups, including Fitzroy Basin Association and the Burnett Mary Regional Group.

The Leathers are seeing multiple benefits from their commitment to sustainable farming - their production costs have been significantly reduced, they are capturing market premiums, their environmental footprint is diminishing, the biodiversity of their land continues to improve and they are becoming increasingly resilient to climate extremes.

To get a bird's eye view of Melinee and Rob's operations: mla.com.au/research-and-development/Environment-sustainability/producer-case-studies/#mcee_temp_url



Melinee Leather inspecting Leucaena at 'Barfield Station' Banana central QLD. Supplied.

Congratulations

TO THE 2021 NATIONAL LANDCARE AWARD WINNERS

Landcare Australia was honoured to host the 2021 National Landcare Awards in early August, albeit in a radically different format than usual.

More than 3,000 people registered to attend the 2021 National Landcare Conference with many of them also tuning in for the 2021 National Landcare Awards.

The biennial awards, hosted by popular ABC TV presenter and Landcare champion Costa Georgiadis, were initially due to be held in Sydney in 2020. But the ongoing pandemic forced the event to 2021 and eventually online along with the hotly anticipated two-day National Landcare Conference.

Seventy-five amazing nominees competed in 11 categories, honouring Landcare excellence on the coast, farms and suburban, regional and remote communities. Individual, community, youth and Indigenous achievements were all celebrated during the two-hour ceremony.

The Australian Government Individual Landcarer Award went to Basil Schur

for his pioneering efforts to secure the future of the unique biodiversity of WA's south coast, including the establishment of the Denmark Wetland Centre for community education and coordination of the Balijup Fauna Sanctuary. Basil's ongoing monitoring of species reintroduced into the enclosure has seen an impressive rise in the numbers of bandicoots and other native animals.

Tasmanian mixed crop and vegetable farmer Michael Nichols was recognised with the Australian Government Innovation in Agriculture Land Management Award. His Redbank Farm at Sisters Creek was praised for its use of precision agricultural techniques to address crop variability and resource use efficiency.

This year's Australian Government Landcare Farming Champion is Amarula Dorpers, a sheep stud operated by Justin and Lorroi Kirkby at Gravesend near Moree in northern NSW. The couple's focus on soil biology and regeneration to increase groundcover to effectively use all the rain that falls on their land has helped establish sub-tropical grasses and

legumes in previously degraded soils that had been continuously farmed.

And the next generation of landcarers were certainly not forgotten on the night. With just 140 students and eight staff, Victoria's Newham Public School impressed the judges with their environmental and sustainability programs. They won the Woolworths Junior Landcare Team Award for their project to establish indigenous vegetation along a tributary of Deep Creek, creating a nature corridor for local wildlife and connecting with the Cobaw Biolink.

The students also designed and built a wetland to provide an alternative breeding ground for frogs, with 10 southern brown tree frogs now calling it home.

Also in the youth category, Dhani Gilbert, an Indigenous activist and climate action campaigner from the ACT, walked away with the Austcover Young Landcare Leadership Award. An aspiring field ecologist, Dhani was honoured for her work as a community educator at

Mulligans Flat Woodland Sanctuary and for promoting landcare practices such as weed eradication and cultural burning.

The Northern Territory's Dhimurru Aboriginal Corporation won the Coastcare Award after working tirelessly for 20 years on the western side of the Gulf of Carpentaria to protect land and marine wildlife from plastic debris. The corporation's work has made an enormous difference in an area with some of the highest densities of foreign-sourced rubbish in the world.

Meanwhile, the Wunambal Gaambera Aboriginal Corporation's work on Wunambal Gaambera country – which covers 2.5 million hectares of some of the most ecologically and culturally significant land in Western Australia's Kimberley region – secured the KPMG Indigenous Land Management Award. The Wunambal Gaambera people made a Healthy Country Plan – a world first – to help them keep their country and culture healthy and to build the capacity of their families to live on their country in the future.



An independent review found this was a sophisticated and inspiring plan that sets a high standard for Indigenous Protected Area planning in Australia. It also represents a fresh way of linking measures of Indigenous health along with those of ecosystem wellbeing.

ACT's Red Hill Bush Regenerators picked up the ACM Landcare Community Group Award for their efforts restoring the native ecology of one of the most significant remaining remnants of endangered yellow box and Blakley's red gum grassy woodland in Australia.

And NSW's Floating Landcare took home the Australian Government Partnerships for Landcare gong for its program restoring weedy hotspots in national parks and other public lands along the Hawkesbury River and Pittwater and Central Coast waterways.

You can also read about the winners of the new General Jeffery Soil Health Award and Bob Hawke Landcare Award on pages 10 and 11 in this edition.

Minister for Agriculture and Northern Australia David Littleproud commended

the National Landcare Award winners on their many accomplishments and also praised the Landcare community for their resilience and extraordinary stoicism during the ongoing pandemic.

He applauded the adaptability of those involved in landcare to come together online to celebrate the 2021 National Landcare Conference, giving communities across Australia the chance to be part of something special during Landcare Week.

Meanwhile, over two days, Costa expertly hosted the National Landcare Conference with more than 60 speakers from the Landcare community, government representatives and academics in 40 sessions across four conference streams: Sustainable Agriculture; Environment and Climate Change; Community Partnerships in Action; and Landcare Impact.

A hugely diverse range of topics were presented including sessions on empowering rural women, the value of on-farm biodiversity, meeting the challenges of climate change, connecting

through online communities, Landcare and Aboriginal cultural heritage and much more.

Special guest speakers taking part included former Deputy Prime Minister John Anderson delivering the keynote address; ANU scientist and academic Professor David Lindenmayer AO and Stacey Vogel from the Cotton Research Development Corporation.

Delegates also had the opportunity to attend panel discussions on a variety of topics sure to be of interest to so many involved in Landcare.

Pip Job from the NSW Department of Primary Industries and former chief executive for Little River Landcare facilitated a panel on Landcare's role in Wellbeing and Mental Health while Sue Brieschke from Hinterland Bushlink lead a discussion on roving Restorers: A Win-Win for Nature, Landholders and Community. And Natasha Cadenhead from University of Queensland's School of Earth and Environmental Sciences spoke about Making Business Work with Biodiversity and Leveraging the

Financial Sector to Improve Conservation Outcomes.

Author, filmmaker and Indigenous fire practitioner Victor Steffensen also participated in a panel on the advantages and benefits embracing cultural burn methods can bring for the Landcare community in tackling climate change on the Cultural Land Management panel with additional speakers including Barry Hunter, and Joe Morrison from Indigenous Land and Sea Corporation.

The 2021 National Landcare Conference and National Landcare would not be possible without the generous support of the Australian Government's National Landcare Program, Gallagher, Saving our Species, Australian Community Media, Austcover, KPMG Australia and Woolworths.

You can read more about the conference and award winners and watch recorded sessions at nationallandcareconference.org.au





Emeritus Professor Abbott (far left) with UWA student volunteers at the Land Restoration demonstration site. Supplied

LAND RESTORATION RESEARCH DRAWS BIG CROWDS

An innovative Land Restoration Demonstration Site at The University of Western Australia's farm, Ridgefield attracted about 130 people during an open day on 3 September.

The UWA Farm Ridgefield 2021 Open Day: Pastures and Fodder for Sustainability featured visits to four research sites currently underway at the West Pingelly farm.

The Land Restoration Demonstration Site was established with a grant from the National Landcare Program (NLP2) led by UWA Emeritus Professor Lynette

Abbott, who was recently named the inaugural General Jeffery Soil Health Award recipient at the 2021 National Landcare Awards.

"This project is focused on protecting and improving soil on small pockets of land (up to 10ha) which would otherwise be low grade and non-profitable pasture or remnant vegetation in poor condition," Professor Abbott said.

"It involves a novel approach using permeable biomass wells and walls containing biological materials using hay, compost and biochar based on the success of an existing small-scale

initiative at a Karry Fisher-Watt's property near Brookton."

The project is a UWA collaboration with Ms Fisher-Watts, Nutra-Rich (Brookton) and Wheatbelt NRM.

Professor Abbott said the open day visit highlighted one of several examples of land restoration at Ridgefield, including plantings by Greening Australia (as part of the Australian Government's 20 Million Trees Program) and trees planted by children from Perth schools.

These activities involved valuable contributions from volunteer UWA students.



University of Western Australia's Emeritus Professor Lynette Abbott was rewarded for her efforts to champion, improve and educate others about soil health. Supplied

UWA ACADEMIC SCOOPS NEW SOIL HEALTH AWARD

A leading academic from Western Australia was recognised for her decades of dedication to the fields of soil science and soil biology with the inaugural General Jeffery Soil Health Award.

Honouring Australia's first national soils advocate, the late Major General Michael Jeffery, University of Western Australia's Emeritus Professor Lynette Abbott was rewarded for her efforts to champion, improve and educate others about soil health.

Over the course of her career, Professor Abbott has conducted pioneering

research into symbiotic soil fungi in agriculture and disturbed natural environments during an academic career that has spanned more than five decades.

Her research has addressed fungal interactions with plants and implications for fertiliser management and soil amendments.

Professor Abbott has developed the innovative 'Know your Soil Biology' workshops for farmers and provides hands-on activities on the benefits of soil biota for soil health.

She is currently consolidating soil health knowledge through a project in the Australian Government's Smart Farms program.

Also in the running for the award were South Australia's Brian Hughes and New South Wales's Robert Quirk.

The SA Principal Consultant at Primary Industries and Regions SA-

Rural Solutions, Brian has worked as a soil conservation officer and soils and land management consultant since 1982. He has extensive knowledge of South Australian soils, their distribution, properties and management in agriculture.

He has also determined the extent of soil acidification in traditionally non-acidic areas and promoted the adoption of treatment options.

While Robert is a sustainable agriculture educator, researcher and advocate. Through extensive study, experimentation and collaboration, he has developed management practices resulting in quantifiable improvements in soil characteristics. Robert has additionally collaborated with three universities over the past 20 years and developed best practice methods for growing sugar cane in acid sulphate soils and boosted soil organic carbon levels from 2 to 6 per cent.

ROCK CHUTES TO FIGHT EROSION AND HELP THE REEF

Rock chutes have been put through their paces on cattle stations in Far North Queensland's Herbert River catchment - and they've been given the 'thumbs-up' as solutions to gully erosion and topsoil losses.

Four rock chutes with accompanying bund walls were built on Mt Garnet and Innot Hot Springs properties over the past three years, along with different rock structures that have secured tailings dam walls at historical mining ventures at one property. Together, they will prevent an estimated 1,200 tonnes of sediment - the equivalent to 50 semi-trailer loads - from reaching the Great Barrier Reef each year.

Terrain NRM's Jen Mackenzie said the first La Nina wet season since the chutes were constructed had given the

engineered structures a solid testing period.

The chutes range from 20 metres to 100 metres in length. They have been built in gully complexes to stop erosion that has seen gullies spread like fingers out across the land, causing topsoil losses and sending sediment through river systems to the Great Barrier Reef.

"These structures reduce the energy of large water flows and prevent erosion from continuing upstream," Ms Mackenzie said. "They are part of a solution that includes fencing to manage erosion and cattle movements, installing off-stream watering points, making changes to grazing management practices, planting native grass at the sites and undertaking weed control."

The \$3 million Herbert Gully and

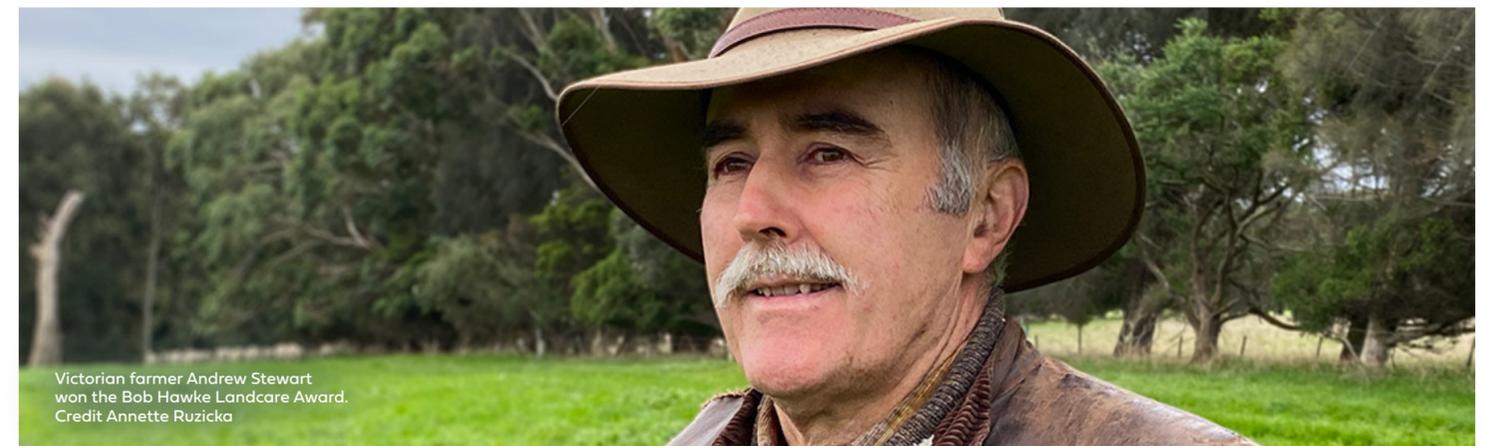


Gullies Project - Woodleigh Station rock chute completed. Supplied

Grazing Project is delivered by Terrain NRM and funded through the Australian Government's Reef Trust IV program.

Ms Mackenzie said the grazing practice changes were just as important as the engineered structures.

"We work closely with landholders. And through this project, hundreds of other graziers have also gone to workshops on natural grazing methods, targeting stock rotation patterns, soil health and pasture management."



Victorian farmer Andrew Stewart won the Bob Hawke Landcare Award. Credit Annette Ruzicka

CORANGAMITE GRAZIER TAKES HOME BOB HAWKE LANDCARE AWARD

Victorian farmer Andrew Stewart won the Bob Hawke Landcare Award for his environmental work and sustainable agricultural advancements on his farm at Corangamite.

Thirty years ago, Andrew developed a whole farm plan for Yan Yan Gurt West Farm, a 230-hectare grazing and agroforestry property in southern Victoria. Plantings 50,000 trees and shrubs have boosted woody vegetation across the farm from 3 per cent to 18 per cent, without hindering agricultural production.

The plantings have been connected to

form a web of trees that meander across the landscape, providing waterway, soil, pasture and livestock protection, wildlife corridors and improved aesthetics and wellbeing.

Andrew has also invited more than 5000 people to his farm to educate them about sustainable land management practices.

Also acknowledged for their work were runners-up James Walker of Longreach, Queensland and Justin and Lorroi Kirkby from Moree, New South Wales.

At Camden Park, an 8100-hectare organic cattle station, James has focused on tackling land degradation, carbon

emissions and climate change through unique industry approaches.

He created the Agrihive Farmecco digital platform to help other farmers implement sustainable landcare goals. He also developed an innovative 'Floating Lease' to reflect seasonal conditions, which addresses emissions through an off-grid solution for the power supply on his property. This approach is being prototyped commercially.

Elsewhere at their Gravesend property 50 kilometres from Moree, Justin and Lorroi revegetated the formerly degraded property of rundown cropping blocks that once featured patchy ground cover

and poor nutritional grasses. Thanks to their innovative farming measures, the farm's carbon footprint has been reduced and the planting of trees and fodder shrubs has enhanced wildlife corridors and bio-link habitats for insects and birds.

The Bob Hawke Landcare Award recognises individuals who have demonstrated leadership and commitment in natural resource management and sustainable agriculture.

Nominations for the 2022 Bob Hawke Landcare Award will open in March 2022.

LANDCARE LED BUSHFIRE RECOVERY



Using drones and artificial intelligence to monitor vulnerable koalas. Climate testing the next generation of eucalyptus trees. Recruiting citizen scientists to protect endangered butterflies. These are just a few of the 111 bushfire recovery projects funded by the Landcare Led Bushfire Recovery Grants program.

In a joint announcement by Federal Minister for the Environment Sussan Ley MP and Federal Minister for Agriculture and Northern Australia David Littleproud MP, the \$14million grants program is supporting regeneration and community resilience in seven government-designated regions impacted by the Black Summer bushfires in Queensland, New South Wales, the Australian Capital Territory, Victoria and South Australia after the 2019-2020 Black Summer bushfires.

Facilitated by the Australian Government's Bushfire Recovery Program for Wildlife and their Habitat, Landcare Australia, the National Landcare Network and state peak bodies Queensland Water and Land Carers,

Landcare NSW, Landcare Victoria Inc, Landcare ACT and Landcare Association of SA are administering the grants and coordinating projects with Landcare teams and other community groups.

Projects are now underway in the rainforests of south-east Queensland, the rainforests of the NSW North Coast and Tablelands, the forests of the NSW South Coast, World Heritage-listed Blue Mountains, the alpine environments across ACT, NSW and Victoria, the forests and coastal ecosystems of East Gippsland and Kangaroo Island.

A notable project awarded \$250,000 in funding, researchers and ecologists from the Threatened Species Conservancy and Melbourne University are spearheading an initiative to monitor dwindling butterfly populations and protect rare habitat for species found only in East Gippsland. They will examine seven threatened species, including the southern Sedge-darter and Two-spotted Grass-skipper. With largely outdated data, researchers know little about the species and the impact of extreme conditions.

Starting in Mallacoota and expanding to other parts of the region, the project involves volunteers and landcarers from Far East Victorian Landcare and Traditional Owners collaborating to better understand butterfly ecology, identification and survey protocols. Land managers will also receive guidance on protecting host plants and butterfly habitats.

Future work will evolve around captive breeding, salvage operations for future fire events and host plant mapping. The ultimate goal is to prevent the butterflies from sliding unnoticed into extinction.

Meanwhile, some organisations are developing app technology to aid the recovery and monitoring of species. In the Blue Mountains, non-profit Science for Wildlife is using \$300,000 in funding to build an app to coordinate volunteers and help prevent them from possibly harming habitat or animals, or themselves.

The organisation has been driving native species replanting, rehabilitated release and community engagement to

help native species including Koalas, the Brush-tailed Rock-wallaby and Greater Gliders. However, with the surge of volunteers after the Black Summer fires, this restoration work has been challenging to manage.

Wildlife Near Me, the new information-sharing app, will aim to fix this issue, driving stakeholder collaboration and information sharing for informed and coordinated approaches to wildlife conservation. Two wildlife survey projects will test the system to guide recovery efforts.

Meanwhile, in South Australia, communities and local students across Kangaroo Island are being recruited to help save bird species impacted by Black Summer.

The fires left several species, including 17 found only on the island, at risk of extinction. Some including the Southern Emu-wren and Kangaroo Island Whipbird, lost up to 80 per cent of their habitat.

With \$50,000 in funding, Birdlife Australia aims to educate and engage

local schools, along with private landholders and community volunteers in monitoring island species by using Birddata, a mobile phone app. The app will enable BirdLifeAustralia to collect information on numbers and dispersal while helping users learn more about their local feathered friends. Ongoing surveys will be critical to assessing the post-fire abundance and distribution of birds, particularly for priority species.

In the Snowy Monaro, Australian National University is working with Landcare to conduct temperature trials on native trees. With \$180,000 in funding, these experiments will focus on the climate resilience of native eucalyptus species with the hope of safeguarding bush areas against increasing extreme conditions.

Working with Upper Snowy Landcare Network, the researchers are examining species from the woodlands and forests of south-east Australia affected by drought, dieback and the recent bushfires. Using high-resolution real-time imaging technology, researchers will assess

Ribbon and Snow Gum seedlings collected by network members for their heat and drought tolerance. Tests will occur in climate chambers at the Australian Plant Phenomics Facility at ANU, which can replicate extreme climate conditions and interpret the most resistant varieties.

With the seedlings collected and knowledge from the local network, researchers hope to discover which species have the best shot at long-term survival, to support diversity, regeneration and revegetation in future harsher climate conditions.

And in south-east Queensland, Queensland University of Technology is developing a new program featuring drones and artificial intelligence to protect endangered native animals.

With an initial focus on koalas, QUT researchers will develop a community wildlife conservation network using an AI-powered data hub combined with drones equipped with infrared cameras to better detect the animals. The technology will help Landcarers see

animals from the air over large areas, sometimes in places inaccessible on foot. It means conservation groups anywhere in Australia will be able to partner with QUT to transmit data to the hub, offering faster, cheaper and more accurate monitoring of population numbers.

Supported with \$325,000, community groups Noosa and District Landcare and Watergum will test the system before being made ultimately available to environment and Landcare groups across the country.

The program will develop the capacity of Landcare groups to conduct scientifically robust drone surveys for wildlife detection in their own regions, drawing on local knowledge and skill to enable effective on-ground management for koalas and other species in bushfire-affected areas.

More information on projects funded by the Landcare Led Bushfire Recovery Grants visit landcareledbushfiregrants.org.au



Climate Testing Chambers
Credit ANU



Bassian Thrush
Credit Tom Hunt
Birdlife Australia



Kangaroo Island
student Jess Paterson
choosing survey sites
Credit Birdlife Australia



Eucalyptus after impacts of dieback
and extreme temperatures.
Credit Zach Simpson



East Gippsland endangered
butterflies have been critically
impacted. Credit Luis Mata



Prof. Grant Hamilton and
researchers will boost
system to spot koalas
Credit QUT



The logo art for 'Working Together' by Jason Ridgeway, proud Aboriginal artist from the Dughutti Nation on the NSW Mid North Coast. Supplied

LANDCARE AND ABORIGINAL COMMUNITIES – WORKING TOGETHER FOR WILDLIFE RECOVERY

Landcare on the North Coast is embarking on an Aboriginal engagement program – 'CountryCare' - which is set to employ an Aboriginal Landcare Officer, the first such position in the State.

With strong interest from across the North Coast region, and with support from the NSW Landcare Program "Working Together" initiative, the program will establish and strengthen ties between the local Landcare community and Aboriginal groups and organisations.

"Landcare sees common objectives in the environmental work it does and the land management activities many Aboriginal organisations undertake" said Josh Keating, Coordinator with North Coast Regional Landcare Network. "For that reason, the idea of working together and sharing ideas, knowledge and doing joint projects is a core focus of this position" Mr Keating said.

The new Aboriginal Landcare Officer position will provide support to Aboriginal groups, North Coast Landcare networks and Landcare groups to co-design collaborative activities that build capacity and partnerships - with a particular focus on projects that can assist with bushfire habitat recovery.

The program largely stems from recognition by North Coast Landcare that Aboriginal communities are the original "Landcarers" and we are all focused on caring for the land, environment and communities in our region.

Chair of the North Coast Regional Landcare Network, Jim Kinhead said: "This is one of the most valuable things about community connection - it is just getting people together to connect and seeing how we can evolve from there".

"Landcare is well placed to respond to the impacts of the Black Summer bushfires utilising our professional staff, local community groups and extensive network of volunteers."



A national program to strengthen connections between farmers, farming organisations and Landcare

Get Involved in the Landcare Farming Program

The Landcare Farming Program is a joint initiative between Landcare Australia and the National Landcare Network, funded by the Australia Government. The Landcare Farming Program objectives include re-establishing and strengthening connections in the agricultural sector between farmers, farming organisations and Landcare; identifying, sharing and promoting information and practices that support improved management of soil, waterways and biodiversity; and contributing to agricultural and rural community resilience.

Find out more: landcarefarming.org.au
Contact the Landcare Farming Program Manager: mick.taylor@landcareaustralia.com.au



Landcare Webinar Series – focus on Landcare Farming

The Landcare Webinar Series brings people interested in sustainable land management and conservation activities together. The webinars showcase the rich diversity of knowledge, passion and expertise from individuals, groups and organisations involved in landcare activities.

Hosted by Landcare Farming Program Manager Mick Taylor, speakers in the webinars present ideas to inspire people and provide tools that

people can apply in their local community to manage environmental issues and support community resilience.

Registration is free.

You can watch the webinar via YouTube or you can register on Landcarer and ask questions and interact with the online audience using the live chat.

If you miss a webinar, you can catch up later and watch at any time here: landcareaustralia.org.au/webinars

You are welcome to use the links from the Landcare Webinar series web page to share the content with your landcare community and others in your network.

If you have a webinar idea, you are welcome to contact us at mick.taylor@landcareaustralia.com.au

By subscribing you will be notified about each of the webinars in the series and will have access to attend any that interest you. landcareaustralia.org.au/webinars

SHARING THE 'STORY OF CATTAI'

Cattai Hills Environment Network CHEN understands that together, the landcare community can have much wider impact. Sharing ideas, resources, and best practice between groups and communities is a game changer.

A great example is their 'Story of Cattai', an interactive presentation CHEN has recently delivered to a number of schools in The Hills. The 'Story of Cattai', is a localised adaptation of a free educational resource like the Learning Activities available on juniorlandcare.org.au. It provides students with the opportunity to explore the impacts and also ways they can improve the environmental quality of local waterways.

"We loved seeing the children's excitement and eagerness to engage in the presentation, and hearing their ideas on how to care for their waterways and aquatic life like frogs and platypus. It's especially rewarding when even the teachers tell us that they learned

a lot. It's so important to connect our younger generations to the natural environment and for them to understand the impact we have on our aquatic ecosystems," said Danielle Packer, Cattai Aware Project Officer.

CHEN have used Landcarer to share this interactive presentation amongst other landcare groups and have already started a chat to explore ways to reach other groups across Australia on the topic of catchment management and water quality. Landcarer has also enabled CHEN to share images, knowledge and ultimately, reach out to a wider audience about their presentation.

Landcarer is a free online community platform dedicated to landcare, providing individuals and landcare groups with a variety of tools allowing users to create, contribute and share resources, knowledge and ideas.

How can the landcare community help you take your landcare activities to the next level? Get on landcarer.com.au and find out.



CHEN has delivered The 'Story of Cattai', an interactive presentation to a number of schools in The Hills. Supplied.

HERE ARE JUST A FEW OF THE EXCITING TALKS THAT YOU CAN WATCH AND SHARE:



BOB HAWKE LANDCARE AWARD WINNER

Andrew Stewart & Mick Taylor



CARBON PROJECTS

Stephen Wiedemann & Mick Taylor



METHOD TO MARKET - UNLOCKING ECOSYSTEM SERVICE OPPORTUNITIES FOR LIVESTOCK PRODUCERS

Dr Hayley McMillan & Mick Taylor



AUSTRALIAN BEEF AND SHEEP SUSTAINABILITY

Phil Tickle, Tess Herbert, Professor Bruce Allworth & Mick Taylor



LANDCARE SMART FARM - NATURAL CAPITAL ACCOUNTING PROJECT

Jim Radford & Sue Ogilvy



LANDCARE BENCHMARKING PROJECT: NATURAL CAPITAL FOOTPRINT FOR IMPROVING SUSTAINABILITY

Adrian Ward



FERAL PIGS IMPACT ON CONSERVATION AND FOOD PRODUCTION

Dr. Heather Channon



FIVE INTERVENTIONS TO IMPROVE SOIL HEALTH

Sue Bestow



HOW YOU CAN GET INVOLVED IN THE LANDCARE FARMING PROGRAM

Mick Taylor

SAVE THE DATE



2022 NATIONAL LANDCARE CONFERENCE

TUESDAY 23 TO THURSDAY 25 AUGUST, 2022
LIVE AND VIRTUAL FORMAT



2022 NATIONAL LANDCARE AWARDS | GALA DINNER

WEDNESDAY 24 AUGUST, 2022

INTERNATIONAL CONVENTION CENTRE, DARLING HARBOUR, SYDNEY

MEET US ONLINE OR AT THE 2022 NATIONAL LANDCARE CONFERENCE

If you were inspired by the speakers at this year's National Landcare Conference, we encourage you to present at the 2022 National Landcare Conference. The Call for Abstracts campaign is now open until February 27, 2022.

The 2022 National Landcare Conference and National Landcare Awards gala dinner will be hosted as both a live and virtual event in Sydney from Tuesday 23 to Thursday 25 August. This three day event will include over 80 speakers plus a field trip program in the Greater Sydney Region. Early Bird Registrations will open in April 2022.

Over 3,000 people were involved in this year's event and more than 60 speakers presented insightful and informative content. If you missed it, you can access the speaker videos and presentations online including the conference posters and use for training and development, and other capacity building activities in your community.

For more information please visit www.landcareaustralia.org.au

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