



SustainAbility News March 2025

Coming Events:

1st—9th March SeaWeek NZ

3 March World Wildlife Day

Tuesday 18 March Monthly Meeting 6pm ADST

12:30pm India 5:00pm Queensland 5.30pm South Australia 8:00pm Auckland

ZOOM TimeAndDate

20 March World Frog Day

World Water Day

Links and resources:

Previous meeting recordings

WASH Newsletter

ESRAG podcasts

ESRAG Oceania Membership officer

Do you want to add to your skill set and become an environmental champion?

This is a great way to expand your knowledge and skill set. Email me for more information:



Colin.Scobie@ESRAG.org

From our Chair, Colin Scobie

ESRAG Oceania Chair 2024-2025

Hi folks

As always, this month's newsletter is full of inspiration to the challenges around us.

Advocating for a Sustainable Future: Insights & Upcoming Speaker

A big thank you to Kevin Patrick from RegenAqua (PacificBio) for his insightful presentation on Australia's nature-based approach to wastewater treatment.

The impressive Capex and Opex numbers for nitrogen removal highlight the potential of this innovative solution.

Scan the QR code to learn more.

A link to Kevin's presentation is shown on Page 2 with a precis. We encourage you to share this with your local MP to drive change in your community!

Mext Up: We're excited to welcome **Professor Hugh Possingham**, Co-Chief Councillor of the Biodiversity Council of Australia, as our next speaker. He'll share practical ways Rotary clubs and ESRAG members can advocate for biodiversity restoration.

The Biodiversity Council's website is packed with valuable reports—perfect resources to take to your MP or even craft a local news article about biodiversity in your area.

Join us on March 18, 2025, at 6 PM AEDT (VIC) / 5 PM AEST (QLD).

Have questions? Reach out anytime at colin.scobie@esrag.org.

Let's work together to create lasting environmental impact!



CLEAN UP AUSTRALIA DAY— Sunday 2 March

Please send me stories and photos from your club's Clean Up Australia Day activity.

From the previous year's report findings, soft plastics increased to 34%, a substantial 9% rise, while hard plastics comprised 28% of all surveyed litter, equating a 4% increase for plastics over-

- * Cigarette butts represented 16%, an increase from the previous year, and ranked second only to soft plastic pieces in individual items reported by volunteers, followed by beverage bottles.
- * Vapes were collected at 22% of surveyed sites, an increase from 2022 when vapes were found on only 10% of surveyed sites.

https://www.cleanup.org.au/





Clean Up 🗦

Previous Chapter Meeting—Thursday 20 February: Meeting recording.

Kevin Patrick is General Manager of PacificBio and spoke to us about RegenAqua, an innovative wastewater management technology, a proven macroalgae bioremediation solution. By using macroalgae, RegenAqua reduces nutrient discharge and removes harmful nutrients from waterways leaving clean water that can be safely released back into the environment. RegenAqua uses natural seaweed to filter and cleanse the water, through the specially designed wave tanks. The process is chemical free, carbon neutral and produces a biostimulant plant juice which produces strong crop growth.

RegenAqua has plants operating in Burdekin, Hinchinbrook, Palm Island, Pacific Reef Tigers, the Cotal Coast and at Picton in Sydney. They are talks with water authorities in Tasmania and are keen to explore opportunities in all states and territories.



Check it out: https://lnkd.in/gUm6WJHh

Presentation slides.

March meeting: Tuesday 18 March 6pm AEST

Hugh Possingham is the Biodiversity Council's Co-chief Councillor. He is a Professor of Mathematics and Professor of Ecology at The University of Queensland and was the founding Director of The Australian Research Council Centre of Excellence for Environmental Decisions, the National Environmental Science Program Threatened Species hub and an Australian Research Council Professorial, Laureate and Federation Fellow.



Hugh also has a variety of broader public roles advising policy makers and managers, and sits on many boards and advisory committees: from the Friends of Oxley Creek Common to Conservation International.

Hugh wrote "The Brigalow Declaration" with Dr Barry Traill, an open letter used by the Queensland Premier Peter Beattie to stop land clearing in the state, thereby stopping 10% of Australia's greenhouse gas emissions per annum and saving an area the size of Portugal from conversion into farmland.

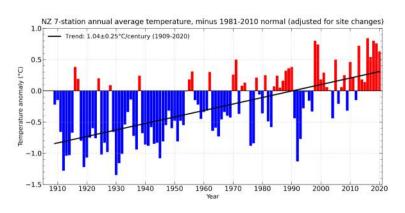
The Possingham lab developed Marxan, the most widely used conservation planning software in the world. Marxan was used to underpin the rezoning of the Great Barrier Reef and is currently employed by more than 7000 users in over 180 countries to build most of the world's marine and terrestrial protected area systems from the Amazon and British Columbia to the Sunda Sea and South Africa.

For more information on his research, listen to "The 2023 Univ Canberra Krebs lecture on Science, Maths and Environmental Policy - https://www.youtube.com/watch?v=lx2 UamShUw" h.possingham@uq.edu.au

State of the Climate 2024: Bureau of Meteorology

Annual mean temperature anomaly Assistant former production (1910 to 2024) Australia former production of the temperature anomaly and the temperature and

Climate Change New Zealand



ESRAG RENEWABLE ENERGY TASKFORCE

The Renewable Energy Task Force (RETF) was charged to explore various renewable energy options, opportunities, and needs to implement renewable energy within ESRAG's environmental programs.

Access to renewable energy, particularly electricity is an enormous driver in improving all aspects of quality of life in developing countries. Globally, almost a billion people do not have adequate access to electricity, if any electricity at all. Given Rotary International's global reach, credibility, and experience in developing countries, we can play a significant role in addressing climate change using clean electricity provided by solar photovoltaics, wind, and other renewable energy resources.

Encouraging renewable energy is an essential tool enabling Rotary's Areas of Focus to be more closely aligned with the 17 UN Sustainable Development Goals. The Environment area of focus supports the following SDGs:

- Affordable and Clean Energy;
- Sustainable Cities and Communities:
- Responsible Consumption and Production;
- Climate Action:
- Life Below the Water:
- Life on Land.

Renewable energy is critical to:

- Producing affordable clean energy
- Improving air quality
- Mitigating climate change
- Bringing electricity to developing regions
- Building a sustainable future
- Building local and regional resilience
- Developing local wealth
- Developing skilled workforces and enabling energy independence

The Task Force is seeking members to assist, with arrange of advisory and admin roles. Are you interested? PP Harinder Singh, Coordinator - RETF Monthly Meetings

+919811351519 / harinderaman@gmail.com

ESRAG member Rob Edwards OAM founded the It's Time Foundation in 2007. The It's Time Foundation delivers renewable power solutions for remote Pacific Island schools, transforming education outcomes and reducing carbon emis-

sions.

200 remote island schools have no power. Solar panels are changing lives in these communities.

Find out more.

Read how It's Time is empowering women in solar and renewable energies in Fiji.

MILLION SOLAR PANELS CHALLENGE:

The Million Solar Panels initiative is a campaign to encourage Rotarians to purchase solar panels in order to impact climate change and at the same time reduce their power bills. The rapid transition to Renewable Energy is needed to stop a Climate Crisis. We can wait for our governments to take action or Rotarians can lead the way.

Did you know that if every Rotarian installed **one** (400 watt) solar panel this would:

- * Be equivalent to planting 14 million mature trees;
- * Save >\$5 billion dollars in electricity bills;
- * Stop > 10 million tonnes of CO2 being released.

Do you have solar panels on your roof at home or your business? Installing solar helps make your Rotary Club Climate friendly. https://esrag.org/every-club-climate-friendly/

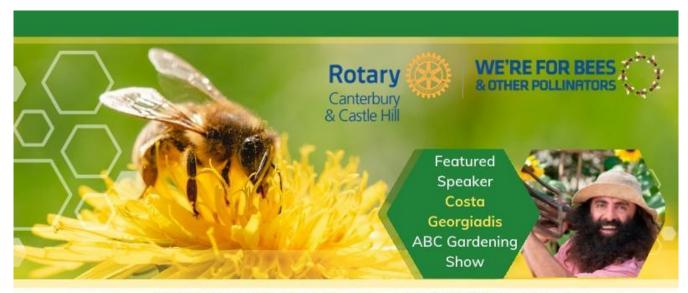
Log them to show how we are addressing the challenge.



See also:

LightUp Timor

Solar Buddies



YOUR GARDEN - OUR FUTURE

A SPECIAL EVENING CELEBRATING GARDENS, BEES, AND OUR SHARED ENVIRONMENT



Monday, 7th April 2025 6:30 PM for 7:00 PM Start



Box Hill Golf Club 202 Station St, Box Hill South

About Our Event!

Discover how your garden can make a difference in supporting essential pollinators and creating a more sustainable future. This engaging evening features distinguished speakers sharing their expertise and passion for creating a greener Melbourne.

Gourmet two-course dinner

Cost: \$70 per person Drinks at bar prices (Tables of 10 available)

> Click here to book



Event Highlights

Speakers

- Costa Georgiadis
- Exclusive insights from Andrew Laidlaw, Landscape Architect of the Royal Botanic Gardens Melbourne
- Special presentation by Fiona Chambers, CEO of the Wheen Bee Foundation
- Expert discussion on bee conservation with Aris Petratis, former President of Victorian Apiarist Association

Auction and Raffle

Led by Jonathan Shepherd from the Kew Rotary Club

- Exciting charity auction featuring unique experiences:
 - Guided Royal Botanic Gardens tours for five couples with afternoon tea
 - Premium Beechworth Honey hamper
 - Complete Backyard Honey hive with
 - · 12-month maintenance package



Contact John McCaskill +61 (0) 414477444 Website rotariansforbees.org

New Zealand News:

The Rotary Club of Whanganui, District 9940, has created a life sized "Eels and Ladders" board at the Bason Botanical Gardens in Whanganui.

This board was formally opened on 27 January and has been a big hit with the community. In partnership with Whanganui District Council and Matipo Community Development, the board was constructed by Jordan Construction, Downer and Fulton Hogan with assistance from Rotarians. Facebook



Celebrating 100 years of Rotary:

Congratulatio0ns to the Rotary Club of Whanganui.





Timaru Rotary Club's Weekend of Connection event, held on Saturday and Sunday, took on the challenge of painting fences at the Timaru Botanic Gardens and assembling predator traps. All up, 120 predator traps were built at the South Canterbury Eco Centre, and the fence at the gardens' Park Centre now has a new coat of paint.

The working bee was organised by Rotary District 9999, which incorporates 63 Rotary and Rotary clubs in the South Island. District Governor Dave McKissock reported 25 volunteers representing eight clubs from Invercargill to Christchurch had offered their time over both days. He was very pleased with the work completed.



Trap-building volunteers were helped by South Canterbury Eco Centre biodiversity facilitator Chris Konings and Tim Exton, a Department of Conservation predator-free ranger based in Geraldine.

This was the first time a Weekend of Connection had been held in Timaru, and it followed an inaugural session at Hanmer Springs where volunteers helped at Forest Camp at the end of last year.

The weekend was also an opportunity to come together and have a bit of fun, which was what had happened in Timaru, where it was about "doing projects that will benefit the community and to give people the chance to network and share.

The traps would be used as part of Predator Free Timaru trapping.

Predator Free Timaru trapping will hold an information session for those living around the Scenic Reserve in March, and have a plan to reduce the number of predators in Timaru and encourage native birds to return.

The group planned to extend the trapping programme to the Highfield Golf Course, including the gully at the top of the area, and hoped to eventually have traps in many backyards across Timaru.

CLEAN UP AUSTRALIA CELEBRATES AUSTRALIA'S ENVIRONMENTAL CHAMPIONS



The inaugural awards recognised the ongoing commitment and environmental stewardship of individual volunteers, community groups, education champions and councils across Australia.

INDIVIDUAL COMMUNITY CHAMPION AWARD: Marjo Hallowell and Michael Filby (Dual recipients)

Since 1990, Marjo Hallowell has taken to the streets of her local Wollondilly and Wingecarribee community in south-west Sydney to collect litter. Each week Marjo collects an average of one full bin of litter from her local area and is often spotted cycling the roads with up to four bags of litter at a time balanced on the handlebars.

For over twenty years Michael Filby has been cleaning up the stretch of highway running through his town of Walpole in remote Western Australia and working hard to share his litter-free ethos. Passionate about encouraging long term solutions to Australia's battle with litter, Michael has dedicated over 20 years of his life to combating our nation's waste.

GROUP COMMUNITY CHAMPION AWARD: Pioneer Catchment & Landcare Group Inc

It has been a core part of the mission for Queensland's Pioneer Catchment & Landcare Group to protect and restore the environment since its formation in the early 1990s. Hosting Clean Ups four times a year at both Harbour Beach and the Pioneer River in addition to their annual participation in Clean Up Australia Day in March, their Clean Ups have become a way to engage the community, raise awareness and make a tangible impact on the local environment. Over the years they have removed hundreds of kilos of litter from local ecosystems, hoping to protect marine life and improve the health of local waterways.

HIGHLY COMMENDED: Ahmadiyya Muslim Community, Australia

Since 1989, the Ahmadiyya Muslim Community has been participating in Clean Ups with an estimated 42,500 hours spent by its volunteers cleaning up in the 35 years since. With volunteers taking part at sites across NSW, ACT, VIC, WA and SA, in 2024 they were proud to have 746 registered volunteers across over 30 Clean Up sites.

SCHOOLS SUSTAINED ENVIRONMENTAL AWARD: Gippsland Grammar-Bairnsdale Campus

The primary students at Gippsland Grammar have been actively participating in Schools Clean Up Day since 2014 and their commitment to our environment continues from there. They created the Green Team educational program in 2013, taking part in awareness programs such as Nude Food lunches and class competitions such as Trash Free Tuesday.

The school has an integrated compost system across every classroom, the staff room and tuckshop, with the compost used to enhance the soil of the school's vegetable garden. They are working towards plastic free classrooms in the upper year groups - reusable white-board markers and pens are used.

OUTSTANDING COUNCIL AWARD: Blue Mountains City Council

Blue Mountains Council is celebrating 35 years of Clean Up Australia Day participation this year. They have consistently strengthened community ties, linking community groups such as Rotary, Bushcare, Rovers, Girl Guides, climbers, walking groups and 4WD clubs and services like Council, NPWS, SES, RFS, NSW Fire & Rescue and Police Rescue through their contributions to the shared endeavour of cleaning up the national park and council reserves. The Blue Mountains and Garguree Swampcare have also run well-supported events on Clean Up Australia Day, collecting not only rubbish but also larger items like furniture and tyres.

IAN KIERNAN IMPACT AWARD: Venkataraj Jayaraj

Venkataraj Jayaraj has been participating in Clean Up Australia Day since 2013 and is a staunch believer that Clean Up events are a meaningful way to give back, lead by example and bring the community together. He has hosted Clean Up events across the Seven Hills area in Sydney and has been dedicated to instilling a sense of environmental stewardship in the younger generation, including his own children, by involving them in these activities and teaching them the value of sustainability and community service.

By engaging local community leaders and using technology to generate interest and build awareness of his Clean Up events, he has created a foundation for a movement of individuals who are more engaged in their communities and more mindful of their environmental footprint.



.The Earthshot Optimism RoundUp:

Big wins for conservation, sustainability, and climate action are all around us.

1. Earthshot Prize Finalists Pristine Seas helped establish a huge new marine sanctuary. Pristine Seas' work sets a powerful

example of how researchers and governments can collaborate to safeguard the world's oceans through science-driven action. Their 2020-2021ground-breaking research has helped create a **48,000 km² marine sanctuary** around the

Marshall Islands in the Pacific Ocean.

Their research uncovered thriving marine life, including record coral cover, abundant sea turtles, deep-sea sharks, and resilient fish populations. These findings highlight the global importance of these untouched ecosystems. This vital data gave Marshallese conservation leaders the evidence needed

to protect biodiversity while preserving the cultural heritage of the Marshallese people, who have relied on these waters for generations.



As one of the world's most biodiverse countries, Indonesia is home to more species than nearly any other nation, including endangered animals like pangolins, gibbons, and macaques. This work has helped reduce poaching by 60% within just three years of partnering with local villages, leading to the recovery of species like the critically endangered Helmeted hornbill. Their innovative approach shows that when communities are engaged, both people and nature can thrive.

By combining long-term, community-driven solutions with cutting-edge technology like bioacoustics and AI, Planet Indonesia is leading the way in restoring ecosystems and safeguarding atrisk species for the future.



3. Earthshot Prize Nominee <u>re.green</u> is working with Microsoft, a Global Alliance Member, to expand forest restoration in Brazil. A new agreement adds 17,500 hectares to their efforts in the Amazon and Atlantic Forests, bringing the total to 33,000 hectares.

As these forests recover, they will store vast amounts of carbon, helping to combat climate change. Microsoft is backing this effort by purchasing 3.5 million tonnes of CO², reinforcing the role of nature-based solutions in cutting emissions. The restoration work will also boost biodiversity, reintroduce native species, and strengthen ecosystems.

Since May 2024, 4.4 million seedlings from 80 native species have been planted, restoring lost habitats and degraded land. Local communities are benefiting too, with over 230 jobs created in seed collection, native bee honey production, and wildfire prevention.



By scaling up their work, re.green and Microsoft are restoring forests while showing how large-scale ecosystem recovery can be achieved.

These stories remind us that optimism isn't just a mindset, it's a movement. And it's happening now!

CSIRO— Choose your fighter; battle ready insects

Choosing your fighter can be tough when there are so many great options. Do you prioritise a cool look, armour, speed, strength, savage taunts, hunger to hunt or advanced combos? It all comes down to the opponent you're looking to defeat or the terrain you need to navigate. Let's take a look at some of the small and mighty defenders making a big impact protecting our crops from pests, waging a war on weeds and dealing with a whole lot of crap!

1. Weevils are ahead by a nose when it comes to choosing a biocontrol warrior. They're naturally fussy eaters so they can make great biocontrol besties to tackle weeds. Their long snout, or rostrum, gives them underwater breathing superpowers and an unmistakable appearance. They use this to drill into plant tissues to feed or lay eggs.

Weevils are actually a type of beetle. There are close to 200,000 species of weevils in the world. But only about 62,000 have scientific names so far. Some of our biocontrol weevil geniuses include the <u>Cabomba weed</u> weevil {smaller than a grain of rice} and the <u>Paterson's curse weevil</u>.

2. In the 1960s, CSIRO introduced 44 dung beetle species from overseas. Dung beetles have specialised gut microbiome bacteria. This helps them break down the cellulose in the dung and access the amino acids they need to grow. They come with two different battle plans: rolling or tunnelling. Either way their superpower is

recycling. Tunnellers dig down below the cow pats and pull pieces of dung underground. They pack these into tunnels and chambers. They then lay their eggs in the sausage or pear-shaped dung mass. In contrast, rollers shape pieces of dung into round balls and roll them away from the cowpat. They do this to ensure their own piece of dung real estate, laying their eggs inside the ball and

burying it to keep it safe.

Whether they're rolling or tunnelling, dung beetles use their big engineering energy and commitment to cleaning up to return nutrients from the sloppy dung of livestock to the soil. Our native dung beetles can't do this as efficiently as they're focussed on the hard, dry droppings of our native species. Dung pads are also breeding sites for bushflies.

So, removing them from the soil surface helps reduce fly numbers.

3. Despite the fashionable armour, the **lady beetle** is a polka-dot assassin. This femme-fatale has a voracious hunger for sap-sucking aphids, consuming around 1000 aphids during their lifetime. Their palate also extends to mites, mealy-bugs and scale bugs.

Their hunger is not their only superpower. They can also multiply rapidly to control infestation. Laying their eggs among an aphid smorgasbord, the alligator-like larvae hatch with a predatory instinct and a single-minded mission to eat. One ladybeetle larva can consume 350 to 400 aphids!



4. The **braconid parasitic wasp** is a predator with a nursery plan straight out of a horror movie. They use the egg and adult stages of other pest insects as hosts for their young. Adopting a truly gruesome parenting strategy, they lay their eggs in or on their victim (oviposit). This provides their larvae with a ready meal when they hatch, killing the reluctant host.



These small to medium-sized wasps with narrow waists, long antennae, and ant-like heads are found throughout Australia. They are excellent and effective biocontrol agents against many insect groups, including aphids, caterpillars and beetle larvae.

These are just a few examples of beneficial insects. Effective crop-wide pest management relies on diversity to provide protection throughout the crop growing stages and the seasons.

Our researchers are looking at ways to encourage beneficial insect, mite and spider armies to flourish. We are studying the ecology of beneficial species in canola growing regions, to understand their impact on key canola pests, and determine ways to enhance their activities to control pests. Alongside research partners*, we are developing tools to help growers integrating beneficials into their pest management practices and reduce pesticide use.

Whether you're an avid gardener or a broadacre agriculturist, getting to know your allies is key to telling the goodies from the baddies and supporting their survival.

Beneficial insects are our natural invertebrate allies. It's impossible to choose just one as the ultimate fighter. Together they make a great team of insect icons helping our agriculture and environment.

CSIRO news archive.

Our team:

Chair—Colin Scobie, Rotary Club of Redcliffe Sunrise, District 9620

Rob Anderson, Rotary Club of Canterbury, District 9800
PDG David Brawn, Rotary Club of Berry District 9705
Pam Dittmer, Rotary Club of Melbourne South, District 9800
Faye Kirkwood, Rotary Club of Caulfield, District 9800
Lesley McCarthy, Rotary Club of Flemington-Kensington
Barbara Sheehan, Rotary Club of Highton, District 9780

Pat Armstrong, Rotary Club of Doncaster, District 9810 Ian Dempsey, Rotary Club of Mitchell South, District Rob Edwards, Rotary Club of Corrimal, District 9675 PDG Elaine Mead, Rotary Club of Westhaven, District 9910 Thelma Raman, Rotary Club of Sydney, District 9675 Ted Waghorne, Rotary Club of Canterbury, District 9800



Trees for Survival NZ:

Trees for Survival National Manager

Phil Lyons

Phone: 02212240946 Email: phil@tfsnz.org.nz

Rotary contact Graeme Houston Phone: 021 955 338

DATES TO KNOW:

<u>UN International Days</u> <u>Find more NZ</u>



Understanding time zones:

UTC = GMT: Coordinated Universal Time or Greenwich Mean Time

AEDT = DST: Australian Eastern Daylight Time is UTC +11 AEST: Winter // non Daylight Savings Time I UTC +10

PST: Pacific Standard Time UTC –8

NZDT_DST: New Zealand and Pacific is UTC +13

www.timeanddate.com/time/map/

