



Rumbalara EEC News - Term 4, Week 3, 2015

Rumbalara Excursion programs for 2016

Information and Expressions of Interest for Rumbalara EEC Excursions and Support for next year (2016) will be sent out in week 7 of this term. If you can't wait that long please use the form on our website at www.rumbalara-e.schools.nsw.edu.au/programs

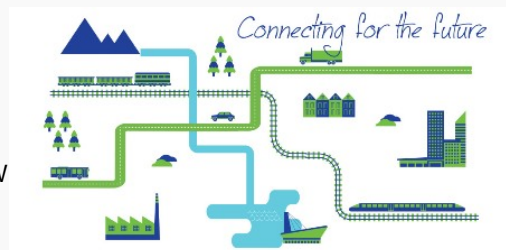
We are currently reviewing and adapting our programs to align with new syllabuses. If you are looking for an excursion to complement a new program please contact us to discuss your needs.



Connecting for the Future

**NSW Environmental Education Conference -
29 & 30 Oct, 2015**

Australian Association for Environmental Education – NSW Chapter presents 32nd NSW Environmental Education Conference Hunter Valley, NSW, 29 & 30 October, 2015
<http://www.nsweeconference.org.au/>



Hear outstanding speakers such as **Nikki Harre**, author of psychology for a better world, **Prof Lesley**

Hughes, Macquarie University and **John Cook** from the Global Change Institute. A great opportunity to share stories and resources with environmental and sustainability educators from the formal education sector, councils, government agencies, private industry and the community. **Registrations are now open!**

My Park Rules - a campaign for more green space

The NSW Department of Education is pleased to be supporting My Park Rules, a national competition on a mission to ensure that every school in Australia offers quality outdoor spaces for their community. The 2020 Vision is a national initiative to increase our urban green space by 20 per cent by 2020. Learn more at 2020Vision.com.au



The premise of My Park Rules is that every Australian child should have access to well-designed green spaces. Parents and teachers are asked to work with students to identify an under-loved space in their school and share their creative vision of how they would like it re-imagined. Part of the criteria to become a finalist is the number of shares an entry receives via social media.

A finalist will be selected in each state and be given the opportunity to work with a Registered Landscape Architect to help their vision come to life. The best concept for a park will be built without any charge to the school.

Before the competition launches here's what you need to do:

1. Go to Asset Pack which includes posters, flyers and logos/tiles that can be used for social media. Attached is a template press release that you can both print out and include in your online communications
2. **Entries open on 6 October 2015** and voting for entries begins on 12 October 2015
3. Promote the competition among your school channels.

For more information, including how to enter and key dates, please go to www.myparkrules.com.au

Rumbalara Climate Clever Energy Trailer

Engage your students in the energy revolution! Rumbalara's 'Bright Sparks' trailer brings a variety of interesting hands-on investigations related to the science and technology syllabus (St 3). It's Free!



More info at www.rumbalara-e.schools.nsw.edu.au/programs. To book the 'Bright Sparks' trailer for your school email: rumbalara-e.schools@det.nsw.edu.au or phone: 4324 7200.

Greater Sydney Local Land Services – Mini-Grants program

Grants of between \$500 - \$1500 are available to support projects that meet National Landcare Programme objectives:



- Building community awareness of biodiversity values
- Building of capacity, skills or knowledge of natural resource management
- Increasing the adoption of sustainable agricultural, fishing and aquaculture practices to conserve and protect biodiversity
- Building Indigenous people's capacity for planning and delivering natural resource management and sustainable agricultural activities

Projects must be completed by the 31st of May 2016.

For further information or to discuss a proposal contact Maree Whelan in the Wyong office on 4352 5104 or email maree.whelan@lls.nsw.gov.au or [click here for more information.](#)

Tuggerah Lakes estuary resource pack to primary and high schools in Wyong Shire

During October, each school in Wyong Shire will receive a package containing the latest educational resources about Tuggerah Lakes estuary. The electronic files will be sent to schools on a USB flash drive and include information on the history, geography, habitats, biodiversity and environmental issues related to Tuggerah Lakes estuary. Also included are steps that each and every one of us can take to help improve the health of the whole system.



The fact sheets, booklet and animated short film can be used in conjunction with tasks and classroom activities. Links to the Australian Curriculum are also provided.

I encourage everyone to visit the Tuggerah Lakes estuary website www.loveourlivinglakes.com.au where you will find a wealth of information, including a collection of 24 short films of various workshops, community events, student education programs, specific environmental topics and environmental works carried out by Wyong Shire Council throughout the catchment.

Tuggerah Lakes estuary is commonly referred to as the 'jewel in the crown' of Wyong Shire, a beautiful coastal landscape and an important natural asset. It supports a diverse range of wildlife, including migratory birds, some that travel from as far as the northern hemisphere to feed and rest on the lakes' foreshore. Unfortunately, the increasing population and development of the shire is creating a number of environmental issues for the estuary. Water quality is declining as a result of changes to the natural landscape, particularly the lakes' shorelines, and the impacts of stormwater. As our population continues to swell, it is important that we, as residents understand the ecology of Tuggerah Lakes, our impacts and how we can all play a part in improving water quality.

Please look out for these resources during October and I hope that you and your students will find them to be useful and that you will be inspired to get out into the Tuggerah Lakes catchment area to explore and

learn. If you have any queries or would like further information please feel free to contact me on (02) 4350 1624 or email Nick.Carson@wyong.nsw.gov.au.

Marine Discovery Talk - Little Penguins & Sea Bird Rescue

Tuesday, 17 November, 2015

6:30-8pm

Marine Discovery Centre, Terrigal

Cost: \$10 per person (includes drinks & nibbles)

Bookings essential - [click here for more information](#)



Join us for a fascinating look into the lives of Little Penguins & other seabirds on the Central Coast!

Little Penguins are the only species of Penguin to inhabit mainland Australia, however, most breeding colonies have been isolated to offshore islands, including Lion Island off Pearl Beach. **Sandra Vardeh (PhD)** has been studying the population dynamics of the Little Penguin breeding colony on Lion Island since 2012 & has seen significant declines in this population.

The Central Coast provides extremely important habitat for many other seabirds too - from the majestic Pelican with a 3m wingspan to the littlest Petrels weighing in at under 50 grams. **Cathie Stubbs**, coordinator, rehabber & rescuer at Australian Seabird Rescue Central Coast will reveal some of the cases she has seen & how much damage can be caused by marine debris. She will demonstrate rescue techniques & explain how we can all help save our seabirds!

Kariong Eco Garden presents 4 Seasons Art and Film Event - Spring

Sat, 7 Nov, 2015

6:00-9:00pm

Free Event - donations of \$5 or more get an entry in Door prize

6:00 - Create Space - Learn, Do and View - Arts Barn

6:00 - Acknowledgement of Country - Eco Garden

6:30 - Central Coast Conservatorium Choir - Katandra Singers - Eco Garden

7:00 - Food - Arts Barn

7:15 - Nature Play and Treasure Hunt - Eco Garden

7:30 - Film: The Last Paradise - the World's greatest adventure Film

9:00 - Thank you for coming



Kariong Eco Garden - Dandaloo St, Kariong (cnr Woy Woy Rd)

www.kariongecogarden.org.au

Presentation: How to get serious about Soil and Climate Change

Fri, 23 October, 2015

10am-12noon

Dandaloo St, Kariong



Peter Rutherford, senior ecologist from Kimbriki Eco House and Garden Education Centre in Sydney, will speak about the role of soil, and its core component, HUMUS, in our urgent task of slowing down the rate of climate change.

Healthy Soils = Healthy Plants = Healthy People

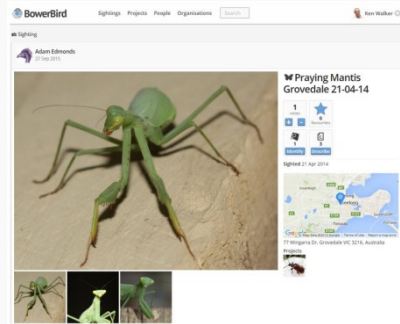
For more info - ph: 0417 686 694 (leave a message) or email: kariongecogarden@gmail.com

Citizen Science in Action - Discovery of new invasive mantis species in Australia

On 27 September 2015, a member of the BowerBird citizen science website, Adam Edmonds, uploaded images of a praying mantis he had seen and photographed in April 2014 from his mother's backyard in Geelong, Vic.

Vic. <http://www.bowerbird.org.au/observations/44574>

Scientists had a look at the image and noted that it did not match the common species in Victoria. Australia's mantis expert, Graham Milledge, at the Australian Museum indicated that it looked like the invasive South African *Miomantis caffra* which has now been recorded as invasive to New Zealand since 1978 and more recently to Norfolk Island but not yet recorded from Australia.



Alan indicated that he had photos dating from 2009 - and has now collected a specimen for formal identification by the Museum.

This is a great example of citizen science acting as our “eyes in nature” and reporting / sharing their finds on a website (Bowerbird) monitored by scientists. Visit the BowerBird Citizen Science website www.bowerbird.org.au

....and of course, the moral of the story is: Always look in your mum's backyard for things that go bump in the middle of the night !

Article adapted from email by Dr. Ken Walker, Senior Curator Entomology, Museum Victoria

There are many ways of involving your students in citizen science - contact Rumbalara EEC to find out more.

The 2015 Koala Count - Help count koalas for conservation

We are running our third annual Koala Count again **from November 7-22**.

The aim of the national citizen science survey is to help build a more comprehensive picture of koala numbers and locations across Australia using a free, GPS-enabled smartphone app. This year, we are excited to have partnered with NatureMapr to deliver a brand new app and website to help you count those koalas.

For more information, or to register for this fun and easy survey, visit www.koalacount.org.au. The NatureMapr app is already available for Apple users on iTunes whilst the Android version will be on Google Play soon. **For more information** [click here](#).



Environment club manual for high-school students

Environment clubs are often at the heart of a school's sustainability activities and help achieve meaningful change within school communities. They inspire, motivate and make great things happen.

Fun and vibrant clubs engage high-school students in sustainability, providing a unique opportunity for students to develop their leadership skills.

The [Environment Club Manual](#) is an online resource provides valuable advice and support for high-school students who are starting or running an environment club. Students can use the tip sheets, project ideas, case studies and templates to inspire and inform their activities. [Access the manual here](#)

Australian Youth Climate Coalition - Youth Decide

Youth Decide is an online, character-driven learning journey and youth climate vote. The December 2015 UN Climate summit in Paris is an important opportunity for students to make their voices heard on an issue that affects all young people. Youth Decide 2015 will engage high school students from hundreds of schools across Australia, educate them on important global issues and develop their leadership skills to create real action on the world stage.



You can [register your school to vote in the poll here](#).

Registering your school to participate in Youth Decide 2015 by Thursday October 15 will ensure you will receive:

- An information pack for running the simple vote
- Online access to downloadable lesson plans and multiple 'how-to' guides, including running events and contacting local media
- A free in-school vote facilitation session, run by a trained AYCC volunteer - which includes an overview of climate science, climate solutions, social justice, civics and international environmental politics.
- Student event support packs, including poster templates and voting booth signs.

The Youth Decide vote will be open in mid term 4 and will close after November 20, 2015.

To book your presentation please reply to this email, or visit <http://switchedonschools.org.au/teachers/youth-decide/>

Central Coast Green Sea Turtle Project

A student environmental leadership program with an Aboriginal perspective.

- promoting student participation and leadership
- addresses science & technology syllabus
- provides professional learning accreditation



At the start of Term 2 in 2016, Take 3 in collaboration Local Land Services and Rumbalara Environmental Education will implement the Central Coast Green Sea Turtle Project. This exciting student-driven program is built around evidence-based learning.

Your primary school is invited to submit an **Expression of Interest**. Places are limited. Ten primary schools from Wyong Shire Council and ten from Gosford will be selected on a first come first serve basis.

How do I find out more about this initiative? Please contact Take 3 for more information - info@take3.org or phone: 0438 857 263. Selected schools will receive a \$1000 seeding grant.

OCCI Activities

OCCI-CC will be running free, Council sponsored, rock pool walks during the January School holidays. These will be held at Terrigal Haven, Nora Head and other Central Coast rock platforms. Please contact our booking office on 0450 990 995 for dates and times.



During term time our OCCI-CC Education team is always available to run presentations on the coastal environment. Contact our education officer on 0404450429 for more details.

Aussie Backyard Bird Count - 19-25 October, 2015

The Aussie Backyard Bird Count is back with the aim to spot a million birds in seven days!

The birds — and their counters (that's you!) — came out in record numbers for the first Count in 2014, with more than 800,000 birds spotted and many different species seen in backyards across the country. Colourful Rainbow Lorikeets led the national tally, being spotted most often in NSW, WA, SA and Queensland, while the Australian Magpie led the flock in Victoria and the ACT. In the NT, the Budgerigar was the most commonly seen bird, and the House Sparrow led in Tasmania.



The national focus on birds is extremely important, as data shows Australian backyards have been shrinking since the 1990s, and populations of some of our most familiar birds, such as Australian Magpies and Laughing Kookaburras, have also declined. With growing national and international concern for the welfare of these iconic birds, we are calling on all Australians to take time during National Bird Week 2015, 19-25 October to take part in the Aussie Backyard Bird Count, and make every bird count. If you're an early bird and would like to receive updates, you can register your interest as a counter now at aussiebirdcount.org.au or join the **#AussieBirdCount** conversation on social media.

What is "Sprummer"?

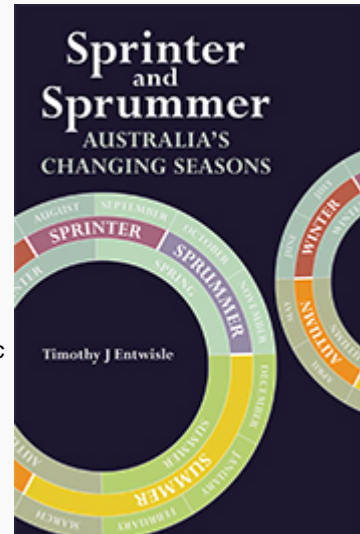
by Louise Noone (14/10/2014)

What does a season really mean?... Spring flowers, summer sun, autumn leaves and winter freezes? None of this really makes much sense in Australia; it just doesn't seem to fit such a neat pattern.

Things are a bit different here, and **Dr Tim Entwisle** (a ClimateWatch plant species advisor) wants to address it. In CSIRO's latest publication *Sprinter and Sprummer; Australia's Changing Seasons*, the director of Melbourne's Royal Botanical Gardens calls to reject the traditional four seasons, and adopt a new system that will get us in tune with our plants and animals.

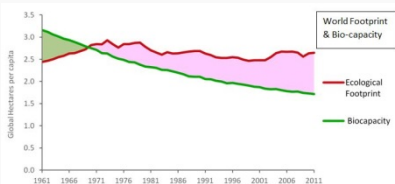
The five new seasons proposed are based on the biological and climatic cycles seen within southern Australia (anywhere south of Brisbane).

[Click here to read the article](#)



Bigfoot accounting

Living sustainably is about trying to balance how much we take from the planet with its ability to keep supplying our needs. Inevitably it comes down to budgeting in much the same way as households, schools, corporations and governments try to balance spending with income. In fact the Eco prefix in the words Economics and Ecology comes from the Ancient Greek 'oikos' meaning house or household.



If we divide the total productive area of the planet by world population (7bn) we arrive at 1.72 global hectares - the amount of land available to each person to live sustainably. This then is the Biocapacity of our planet.

If we use more than 1.72 global hectares, we are living unsustainably. The latest national footprint accounts published by the Global footprint network show that on average the world population is currently living on 2.65 global hectares per person. We would need 1.5 planet Earths to be living sustainably at this rate. The 0.9 global hectare deficit is coming out of our capital (non-renewables, carbon pollution, land degradation etc) and is a debt that will have to be repaid by our children.

Not everyone is overstepping their 1.72 global hectare sustainability footprints. The average in Thailand is 1.9, in Indonesia it's 1.3, in India 0.9, in Pakistan 0.7 and in East Timor it's just 0.4 global hectares.

Australians have monstrous 8.3 global hectare footprints - bigger than any other developed nation. If everyone lived like us we'd need 4.8 planet earths. **More info and useful resources at** www.footprintnetwork.org

NatureWatch diary

- **Birds are nesting** and summer migrants are arriving. **Koels** and **Channel-billed cuckoos** are calling loudly as they deceive **magpies**, **currawongs** and **wattle birds** into taking care of their eggs and chicks. **Kookaburras** are nesting in termite mounds. Our most numerous seabird the **short-tailed shearwaters** or **muttonbirds** completing their long migration from Siberia to nest on offshore islands often wash up exhausted on our beaches.
- **Reptiles** are active after winter hibernation and cicadas are starting to emerge.
- **Flannel flowers**, **Christmas bush**, **Turpentine trees** and many **terrestrial orchids** are flowering.
- **Record your observations** of our changing seasons and help scientists to monitor our wildlife. The Climatewatch App is free and is being used to collect data that will help scientists to measure the impact of climate change on our wildlife. www.climatewatch.org.au/
- **OzAtlas** is another free App that not only lets you contribute your observations to a scientific data base but also provides instant access to information about all the wildlife in your area. www.ala.org.au/ is a wonderful resource for schools.

Join the cuckoo count!

Sign up your school and help track the annual migration of the world's largest cuckoo, the channel-billed cuckoo.



GreenDates

18–24 October **National Water Week**

<http://www.awa.asn.au/nationalwaterweek/>

19–25 October **Aussie Backyard Bird Count**

www.aussiebirdcount.org.au

birdweek@birdlife.org.au

13 November **Walk to Work Day**

<http://www.walk.com.au/wtw/homepage.asp>

9–15 November - **National Recycling Week**, Planet Ark

<http://recyclingweek.planetark.org/>

21 November **World Fisheries Day**

www.gdrc.org/doyourbit/21_11-fisheries-day.html

11 December **International Mountain Day**

www.timeanddate.com/holidays/un/international-mountain-day