

Junior Field Naturalists SA

Newsletter - August 2021

Hi Junior Field Naturalists,

August Meeting

When: Tuesday 31 August, 7.00pm, in the Gym of the Bellevue Heights Primary School

Topic: ORCHIDS - A WINDOW INTO NATURE



Overview: The diverse coloured photographs of this presentation will provide a glimpse into some of the ways orchids interact with other plants, with the fungi that feed them and the insects that pollinate them. Orchids have developed ways to get fungi to feed them without giving anything back, except perhaps somewhere to survive through the summers. They have developed ways to trick insects to pollinate them. Their bright flowers attract native bees, without giving them any food in return. There are tiny reddish brown flowers that are so similar to toadstools that fungus gnats lay their eggs on them. And there is a range that smell like different female insects to attract males. It is not all an easy ride for orchids. They are fragile and need to survive a range of threats to live from year to year. *We hope you enjoy this little glimpse into nature through the window of orchids.*

Speakers: **Robert and Rosalie Lawrence** are conservationists who are passionate about using citizen science to connect people to the natural world. They participate in orchid surveys, volunteering thousands of hours to collect invaluable data for researchers. Since 2006, Robert and Rosalie have run **Heritage Bushcare** and are actively involved in a number of citizen science programs, including **Wild Orchid Watch (WOW)**. The WOW project is testament to Rosalie and Robert's vision to engage Australian amateur naturalists, orchid enthusiasts and citizen scientists in large scale data collection in collaboration with scientists and large scientific institutions. They were the recipients of the **Unsung Hero of SA Science Communication Award** in 2020.



Native Orchid Field Trip

On the afternoon of **Saturday 4 September** Rosalie and Robert will lead us on a field trip looking for wild orchids in the **Mt Gawler Native Forest Reserve**. *Further details will follow shortly.*



Program of Talks and Activities

Below is our current schedule of dates for 2021. We will be including more activities as the year progresses, so this list will be updated as we lock in additional dates and programs.

Monthly meetings are held at 7pm in the **Bellevue Heights Primary School Gym**.

Have a particular topic or field trip you would like us to include? Let us know and we'll see what we can do to make it happen.

Sunday 29 August: BIRD BANDING (Frahns Farm, Monarto)

31 August - Rosalie and Robert Lawrence: **WILD ORCHIDS**

Saturday 4 September: WILD ORCHID FIELD TRIP

21 September - Paul "Starman" Curnow: **THE PLANETS**

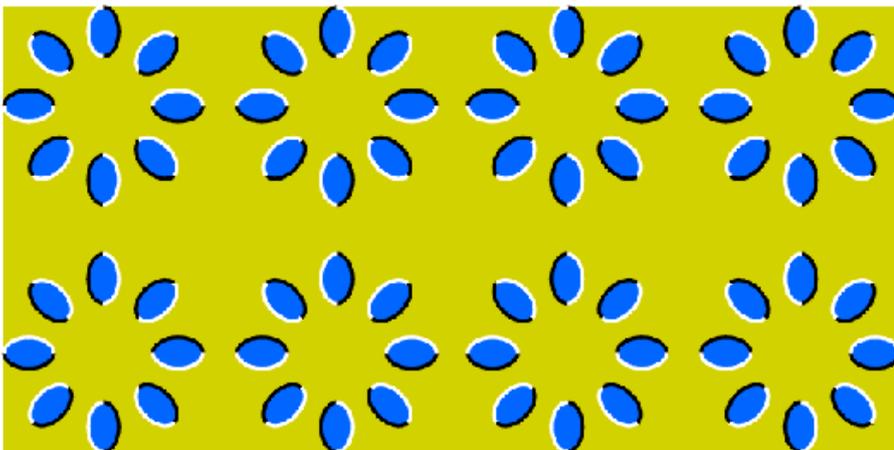
26 October - tba

30 November - **DAVID CHRISTOPHEL MEMORIAL QUIZ NIGHT**

Parents attend meetings and field trips with their children and are responsible for their supervision.



Are the Circles Moving?



This picture is not animated.

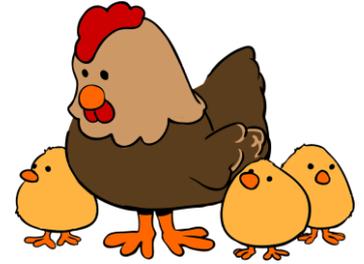
Your eyes are making the circles move.

To test this, stare at one spot in the picture for a few seconds and everything will stop moving.



Facts about BIRDS

- **Birds** have feathers, wings, lay eggs and are warm blooded.
- There are around 10,000 different **species of birds** worldwide.
- The **Ostrich** is the largest bird in the world. It also lays the largest eggs and has the fastest maximum running speed (97 kph).
- Scientists believe that birds evolved from **theropod dinosaurs**.
- Birds have **hollow bones** which help them fly.



- Some bird species are intelligent enough **to create and use tools**.

- The **chicken** is the most common species of bird found in the world.

- **Kiwis** are endangered, flightless birds that live in New Zealand. They lay the largest eggs relative to their body size of any bird in the world.

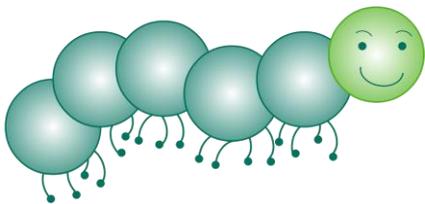
- **Hummingbirds** can fly backwards.

- The **Bee Hummingbird** is the smallest living bird in the world, with a length of just 5cm.
- Around 20% of bird species **migrate long distances** every year.
- **Homing pigeons** are bred to find their way home from long distances away and have been used for thousands of years to carry messages.



From sciencekids.co.nz

Just for Fun



Why do centipedes have 100 legs?

So they can walk.

Why do elephants wear yellow socks?

So they can hide upside down in a bowl of custard.

Why are snails slow?

Because they are carrying their house on their backs.

Why do birds fly?

Because it's faster than walking.



An upcoming event that might be of interest to you



TUESDAY 28 SEPTEMBER 10am - 12pm

Join **Seastar Rock** LIVE on stage from 10am

It's a giant party when Lucy of SeaStar Rock hits the stage with music and dance for children, promoting sustainability and positivity! Kids will be singing, dancing and playing games, as they navigate the sustainability of our oceans.



What's on: After the live show experience the delights of the Marine Discovery Centre. Including live South Australian marine creatures, Virtual Reality experiences, Kaurna Cultural Education, A collection of shells and specimens, Brand new hands on fun and interactive games

Tickets: \$10 per child (includes Beachcombing sheet)
Parents accompanied by child(ren) are free of charge

Bookings: via Eventbrite or Facebook
@MDCHenleyBeach



t. 08 8115 7402 w. marinediscoverycentre.com.au

Cnr Marlborough Street & Seaview Road, Henley Beach (enter via Marlborough St)



Have fun with science ...



PANICKED PEPPER

In this fun little science experiment you will explore **surface tension** using pepper and a drop of liquid dish washing detergent. *Watch the pepper run in a panic when the dish washing detergent breaks the surface tension!*

You will need:

- ❖ Pepper
- ❖ Bowl
- ❖ Water
- ❖ Cotton Swab
- ❖ Liquid dish washing detergent

What to do:

1. Fill the bowl with water.
2. Sprinkle a thin layer of pepper onto the water.
3. Dip the cotton swab into the dish washing detergent.
4. Then dip the end of the cotton swab with the soap into the water.
5. Observe the pepper.



What's happening?

When the pepper is sprinkled in the water, it stays on top because of the surface tension of the water. When the detergent is introduced, the surface tension breaks, sending the pepper in all directions.

Make this a science project

What happens if you use a different spice, such as cinnamon?

What happens if you use a different liquid instead of water?

Test different things to see if they break the surface tension of the water.



From sciencefun.org

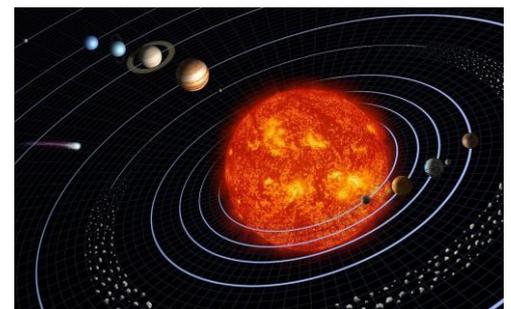




Our Amazing Solar System

from sciencekids.co.nz

- ❖ The **Sun** is over 300,000 times larger than Earth.
- ❖ **Halley's comet** was last seen in the inner Solar System in 1986. It will be visible again from Earth some time in 2061. Get your camera ready!
- ❖ **Venus** is the hottest planet in our solar system, with a surface temperature of over 450 degrees Celsius.
- ❖ Many scientists believe that an **asteroid impact** caused the extinction of the dinosaurs around 65 million years ago.
- ❖ The **Solar System** formed around 4.6 billion years ago.
- ❖ The **Moon** appears to have more craters and scars than Earth because it has a lot less natural activity going on. The Earth is constantly reforming its surface through earthquakes, erosion, rain, wind and plants growing on the surface, while the Moon has very little weather to alter its appearance.
- ❖ **Saturn** isn't the only ringed planet. The other gas giants, such as Jupiter, Uranus and Neptune, also have rings. They are just less obvious.
- ❖ Footprints and tyre tracks left behind by **astronauts on the Moon** will stay there forever as there is no wind to blow them away.
- ❖ In 2006, astronomers changed the definition of a planet. That means that **Pluto** is now referred to as a **dwarf planet**.
- ❖ Because of lower gravity, a person who weighs 90 kilos on Earth would only weigh 34 kilos on the surface of **Mars**.
- ❖ The only planet that rotates on its side like a barrel is **Uranus**. The only planet that spins backwards relative to the others is **Venus**.
- ❖ Some of the fastest **meteoroids** can travel through the Solar System at a speed of around 42 km per second.
- ❖ The first man-made object sent into space was in 1957 when the Russian satellite **Sputnik** was launched.
- ❖ Jupiter's 4 biggest moons are named **Europa**, **Ganymede**, **Callisto** and **Io**.
- ❖ It is because of the Sun and Moon's **gravity** that we have high and low tides.

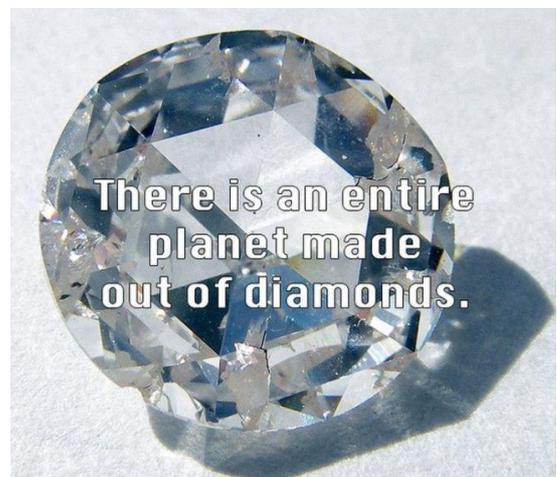
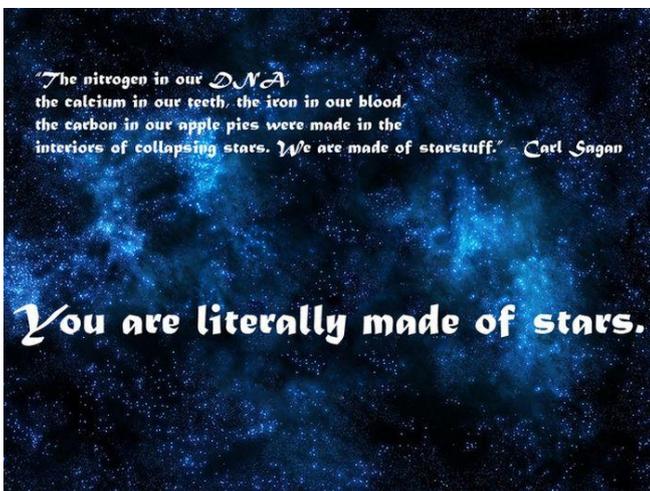


Did you know ... ?

- * **Squirrels** plant more trees than an average human in their lifetime. How? They just hide their acorns and nuts underground and forget about them.
- * 97% of **water** on the planet is salty and unusable. 2% is frozen. That leaves us with just 1% of usable water.
- * The **oldest living tree** in the world is in California and is around 4,843 years old.
- * **Outer space**, all of it, is completely silent because there is no medium or mechanism to allow sound to travel.



- * The **first computer** in the world, the ENIAC, weighed around 27 tonnes and occupied an entire hall.
- * The longest time a human being has gone **without sleep** is 11 days and 25 minutes.
- * There are, on average, approximately 100 **lightening strikes** across the planet every second. That means, in the time it takes you to read this sentence, around 700 lightening strikes will sear their way through the skies, each one heating the air to temperatures of about 30,000 degrees C, much hotter than the surface of the Sun.



Rona Sakko
President - Junior Field Naturalists SA
0419 827 723 jfnsa.com.au
rona.sakko@gmail.com
Patron: Prof Chris Daniels

