Junior Field Naturalists SA

Newsletter - October 2021

Hi Junior Field Naturalists,

October Meeting

When: **Tuesday 19 October**, **7.00pm, Bellevue Heights Primary School Gym**

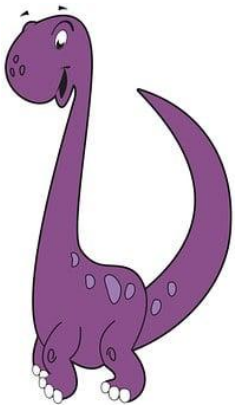
Topic: **ADVENTURES OF A PALAEONTOLOGIST: How we know what we know!**

Abstract: Using a selection of fossils from the Dinosaur University collection, Dean of Science **Professor Flint** will take you on a journey to discover how it is we know about the past.

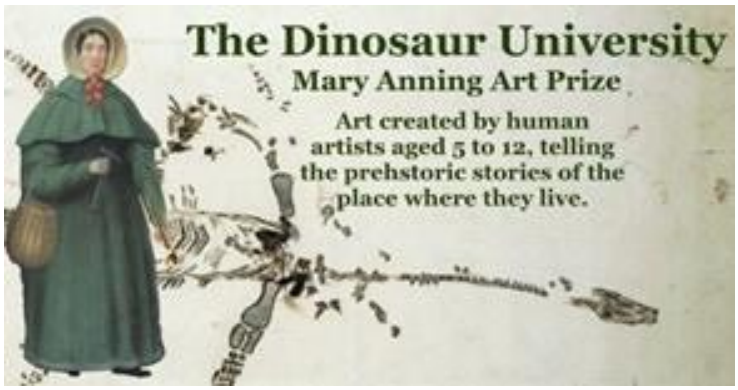
From tales of what it's really like to be on a fossil dig, to working in the lab, to discussing ideas and discoveries with palaeontologists and other researchers, Prof Flint will give an exclusive insight into the world of paleontological research. How does something become a fossil? And once it's become a fossil, how is it discovered, and what do we do when we find it?

Presenter: **Prof Flint** is the Dean of Science of Dinosaur University, and a renowned science communicator. He is also the world's most pre-eminent singing palaeontologist, and is passionate about the prehistoric stories of where we live.

You can find the Prof's tunes on Spotify, Apple Music, and other streaming and download services. He might even sing a tune or two, during the evening!



Ophelia's Gift to our Club



Our Club member **Ophelia Harding** won the 8-12 year old category in this year's *Dinosaur University* **Mary Anning Art Prize** for her model of one of the world's earliest ediacara arborea. Her entry tells the story of fossilisation. Ophelia said: *This animal was living in an ocean 600 million years ago and it could be dragged across the sea floor, it could break in half, or it could stay intact, and then get covered in sand. And then the final part is what it would look like if you find it in the Flinders Ranges today.*

As part of Ophelia's prize, she has been given a 30-minute Zoom session with Prof Flint where he can answer all her questions about dinosaurs. Ophelia has very generously donated this session to our club. Rather than organising a Zoom session, we thought you might prefer a face-to-face get-together. So our upcoming meeting will comprise a performance from Prof Flint, followed by the Q&A session compliments of Ophelia.

Come prepared with all the questions you would like to ask about palaeontology and dinosaurs, and the Prof will answer them. He will also bring along some cool fossils for us to check out.

Thank you so much Ophelia!

Program of Talks and Activities

Below is our current schedule of dates for 2021. 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.

19 October - Professor Flint: **ADVENTURES OF A PALAEONTOLOGIST**

Note change of date for our October meeting which was originally a week later.

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

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

Upcoming citizen science events that might be of interest:

Aussie Backyard Bird Count

The 2021 Aussie Bird Count will run from October 18–24 during **National Bird Week**.

The **Aussie Backyard Bird Count** is one of Australia's biggest citizen science events. This year is the eighth count, and the organisers are hoping it will be the biggest yet. Join thousands of people around the country in exploring your backyard, local park or favourite outdoor space and help us learn more about the birds that live where people live.

The #AussieBirdCount is a great way to connect with the birds in your backyard no matter where your backyard happens to be — a suburban backyard, a local park, a patch of forest, down by the beach, or the main street of town.

How to get involved:

Just spend 20 minutes in your favourite outdoor space and report about the birds you see during that period. You can submit your results using the app or the web form. *Every count helps.*

You can count as many times as you like over the week. It is only requested that each count is completed over a 20-minute period. The data collected assists **BirdLife Australia** in understanding more about the birds that live where people live.

For further information, and to download the Aussie Bird Count app, go to:

https://aussiebirdcount.org.au/

The Aussie Backyard Bird Count is brought to you by BirdLife Australia, the nation's premier independent bird conservation organisation.

Great Southern Bioblitz

When: Friday 22 October to Monday 25 October

This year's **Great Southern Bioblitz** (GSB) will take place from 22nd through to 25th of October on the online citizen science platform, iNaturalist.

iNaturalist is an online social network of naturalists, citizen scientists, and biologists built on the concept of mapping and sharing observations of biodiversity across the globe.

22nd - 25th October 2021

By the end of October, the natural world is in full throttle with flowers blooming, insects emerging, birds singing, reptiles coming out of hibernation, and more. #GSB21 will incorporate different communities, areas and regions across the Southern Hemisphere.

During this weekend, Ferox australis's region of Greater Adelaide will join over 100 other areas around the globe in an international period of intense biological surveying to record all the living species across the Southern Hemisphere in Spring, as well as to engage the greater public in science and nature learning.

Please join in documenting the wonderful and varying biodiversity, and increasing biodiversity awareness through citizen science in South Australia, by contributing to the project.

To find out more information about this event, you can visit their website:

https://www.inaturalist.org/projects/great-southern-bioblitz-2021-greater-adelaide

Moth Night 2021

As part of the Great Southern Bioblitz, October 23rd will be **Moth Night**. Moths are totally underrated animals, so join in exploring this biodiverse group. Hundreds of different species can be attracted and observed in your backyard. They are masters of camouflage and can look almost exactly like objects in nature such as leaves, bark or even dried sap.

Observe what you can and upload your pictures onto iNaturalist.

How do you set up for Moth Night? You can just leave on the light by the back door. For further information, check out the blog that includes tips on moth hunting:

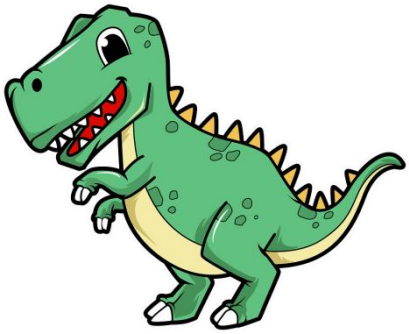
https://inaturalist.ala.org.au/projects/moth-night-2021-a-great-southern-bioblitz-project

Did you know ...

- The acid in your **stomach** could dissolve a nail.
- It takes 11 1/2 days for **one million seconds** to tick away, but almost 32 YEARS for a **billion seconds** to go by.

- **Cockroaches** were around before the dinosaurs.
- **Owls** are the only birds that can see the colour blue.
- A **mosquito** has 47 teeth - and a **snail** has up to 25,000 teeth!
- When a **flea** jumps, the rate of acceleration is 20 times that of the space shuttle during launch.
- Every hour the **universe** expands by a billion kilometres in all directions.
- The strongest muscle in the body is the **tongue**.

Just for Fun



How do you ask a dinosaur to lunch?
Tea, Rex?

What came after the dinosaur?
Its tail.

What should you do if you find a dinosaur in your bed?
Find somewhere else to sleep!

What happened after the dinosaur took the school bus home?
He had to bring it back.

from laughitloud.com

Have fun with science ...

SHRINKING CHIP BAG

Create miniature chip bags in your microwave!

You will need:

An empty bag of potato chips. If you only have a bag full of potato chips, awesome! Eat the chips. You can share if you want, but it isn't necessary to complete the experiment.

What to do:

1. Flatten out the empty bag as much as possible.
2. Take the empty bag of chips and place it inside of a microwave.

STOP! Make sure that you get an adult's permission!

3. Close the microwave door, put it on high power for 5 seconds, and hit start.

Do NOT set the microwave for more than 5 seconds.

4. You'll see a tiny bit of sparks and hear a bit of noise from the bag, but don't be alarmed.
5. When the 5 seconds of dust settles, you'll have a miniaturized chip bag!
6. **Wait for 30-60 seconds before taking the bag out of the microwave. It's hot!**

How does it work?

Believe it or not, there is a scientific explanation behind the Shrinking Chip Bag. It's all about polymers.

Polymers are long chains of molecules. Their natural state is similar to a knotted up string. When a bag of chips is made, these polymers are heated and stretched out to make the flat material used for chip bags. The high heat of this process locks the molecules in this "stretched out" state. When exposed to the heat of being microwaved, the material is able to release from the stretched state and return to its natural, bunched-up state.

But why do the shrinking polymers maintain the shape of the chip bag?

This has to do with the other materials that are coating the polymer. Thin layers of aluminium, paint, and other materials line the outsides of the polymer and all of these layers are still bound together in the shape of the bag. So although the polymer chains bunch back into their natural shape, the overall bag shape is maintained.

From: stevespanglerscience.com

Definition of Internet terms - ideal for beginners!

Web: What spiders make

Micro chip: What is left in the bag after you have eat the chips

Mouse: What eats the grain in the shed

Online: When the fish gets the hook

Offline: When the fish jumps off the hook

Netscape: When the fish manoeuvres out of reach of the net

Network: When you have to repair the fishing net

Internet: Complicated fish net repair

Upgrade: A steep hill

Byte: What mozzies do

Bit: What mozzies did

Laptop: Where the cat sleeps

Cursor: A person who swears a lot

10 Things You Didn't Know About Flamingos

1. Flamingo nests are made of mud.

A flamingo's nest looks like a mini mud volcano, with room for one large egg. Flamingos are monogamous, and mom and dad are team players. Both help to build the nest and incubate the egg. Flamingo chicks hatch with white-gray, downy feathers and straight bills. It takes several years for them to acquire their signature pink colour and hook-shaped bills.

2. Flamingos get their pink colour from their food.

Flamingos really are what they eat. Many plants produce natural red, yellow or orange pigments, called carotenoids. Carotenoids give carrots their orange colour or turn ripe tomatoes red. They are also found in the microscopic algae that brine shrimp eat. As a flamingo dines on algae and brine shrimp, its body metabolizes the pigments — turning its feathers pink.

3. Flamingos are filter feeders and turn their heads “upside down” to eat.

The term filter feeder may conjure images of baleen whales or oyster reefs, but flamingos are filter feeders too. They eat algae, small seeds, tiny crustaceans (like brine shrimp), fly larvae, and other plants and animals that live in shallow waters. When it’s time to eat, a flamingo will place its head upside down in the water with its bill pointed at its feet. It then sweeps its head side-to-side, using its tongue to pump water in and out of its bill. Comb-like plates along the edge of the bill create a filter for water to rush out, while trapping food inside.

4. A group of flamingos is called a flamboyance.

A group of crows is called a murder, and a group of geese is called a gaggle. So, what is a group of flamingos called? A flamboyance! Other collective nouns for flamingos include stand, colony and pat.

5. There are six flamingo species.

In addition to Caribbean flamingos, there are lesser, greater, James’s (or Puna), Chilean and Andean flamingos. Greater flamingos are found in parts of Africa, Asia, and Europe. They are the largest and tallest flamingo species.

6. Don’t let your eyes deceive you - a flamingo’s knees don’t bend backward!

Flamingo legs actually bend just like human legs. What looks like a flamingo's knee is really its ankle joint. A flamingo’s knees are located higher up the legs, hidden by the body and feathers. Confused? Think of a flamingo as standing on tiptoe. When the leg bends, it’s the ankle you see hinging.

7. Some flamingos live in extreme environments.

Flamingos are typically found in shallow saltwater or brackish waters (where saltwater and freshwater mix). But some flamingo species breed and raise their young in extremely salty bodies of water, called alkaline or “soda” lakes. The high concentration of carbonate salts in these lakes is so corrosive that it can burn the skin, making the water uninhabitable for most animals.

8. Flamingo parents feed their chicks a liquid they secrete, called crop milk.

A flamingo’s “milk” is produced in its crop (part of its throat) and then brought up through its mouth. Both parents can produce crop milk to feed a flamingo chick until it is old enough to eat on its own.

9. Yes, flamingos can fly.

You may be used to seeing flamingos gathered in large groups on the ground, but they also take flight.

10. Flamingos can sleep standing on one leg.

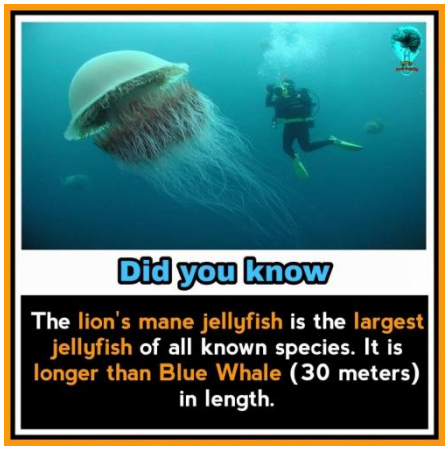
Scientists also believe that a one-legged stance may help flamingos stay warm. Birds lose body heat through their limbs. By standing on one leg and tucking the other under their belly, flamingos can limit the amount of heat that escapes through their legs and feet.

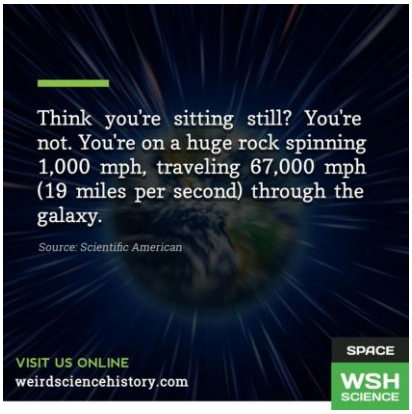
(from July 2021 issue of National Zoo News)

Random Animal Facts

- There is an average of **50,000 spiders** per acre in green areas.
- For every human in the world there are **one million ants**.
- The sentence "*The quick brown fox jumps over a lazy dog.*" uses every letter of the alphabet.
- Just one cow gives off enough harmful **methane gas** in a single day to fill around 400 litre bottles.
- A cat has **32 muscles** in each ear.
- Most **elephants** weigh less than the tongue of a blue whale.
- We share 70% of our DNA with a **slug**.
- A **bat** can eat up to 1,000 insects per hour.
- The **starfish** is the only animal capable of turning its stomach inside-out.
- After eating, a **housefly** regurgitates its food and then eats it again.

from thefactsite.com





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