

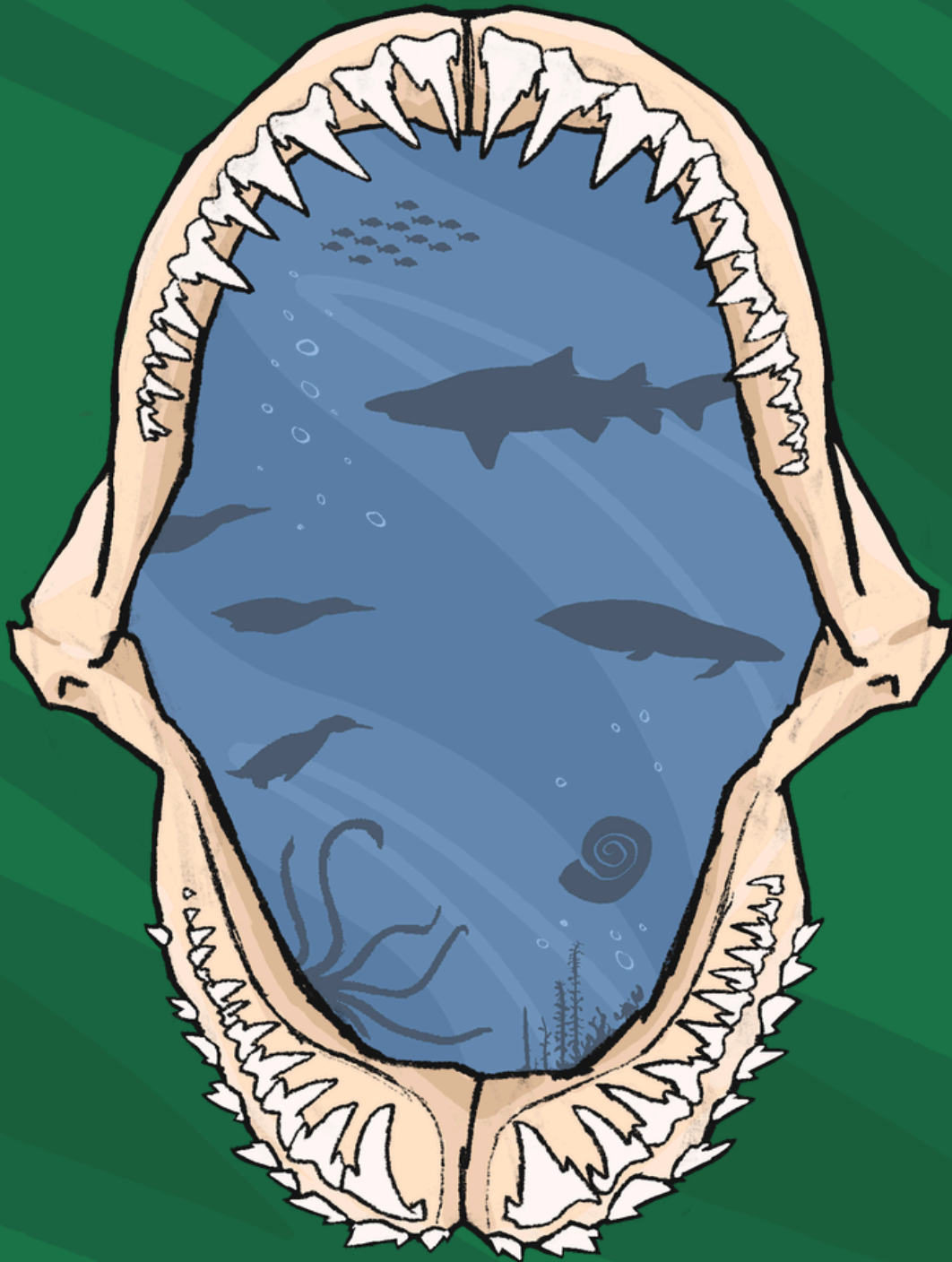
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# BEER 'N' BONES



April: 2026

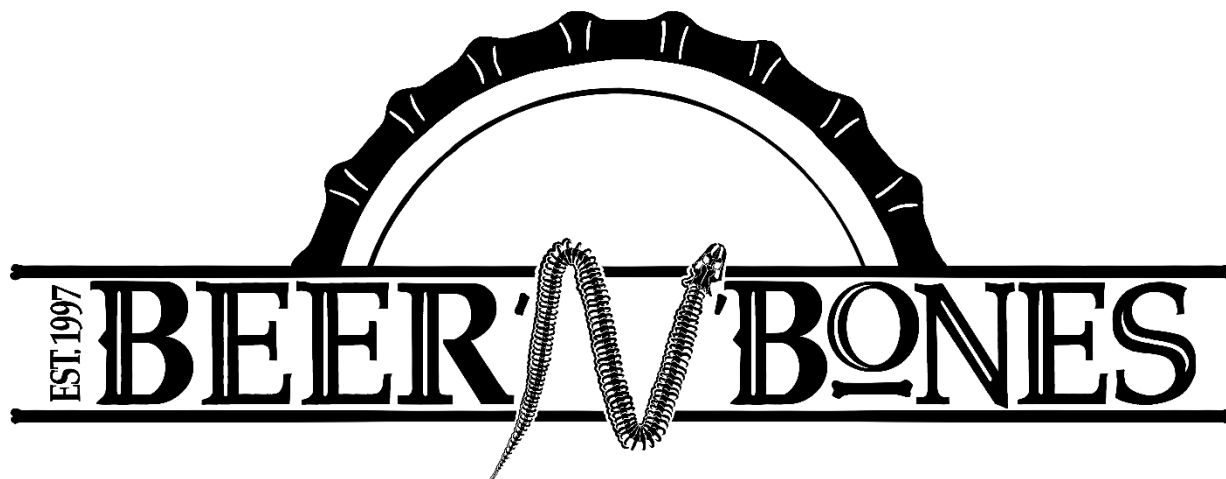
Volume 19, Issue 2



## THIS ISSUE

*Thylacoleo* molar found!  
First FUPS Field Trip  
Palaeo Art Showcase





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**Volume 19, Issue 2, April: 2026**

**Flinders University Paleontological Society (FUPS)**

**Web: <https://www.flinderspalaeosoc.org/>**

**Submissions Email: [BeerNBonesSubmissions@gmail.com](mailto:BeerNBonesSubmissions@gmail.com)**

**Club Email: [flinderspalaeo@gmail.com](mailto:flinderspalaeo@gmail.com)**

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## **CONTENTS**

Message From the Editor.....	1
Bone of the Month.....	2
Successors to WWD?.....	4
An Incredibly Important Study!!!! .....	6
Old News .....	7
Palaeo Art Showcase.....	8
Field Work .....	9
Museum Trip 2026 .....	10

## **Message From the Editor**

Well, well, well. You're back for more Beer 'n' Bones...

Fair enough, we are too! We are pleased to present the second issue of our esteemed publication! Thanks to everyone who contributed, and I'm extra enthused about the wide array of submissions we have had this month!

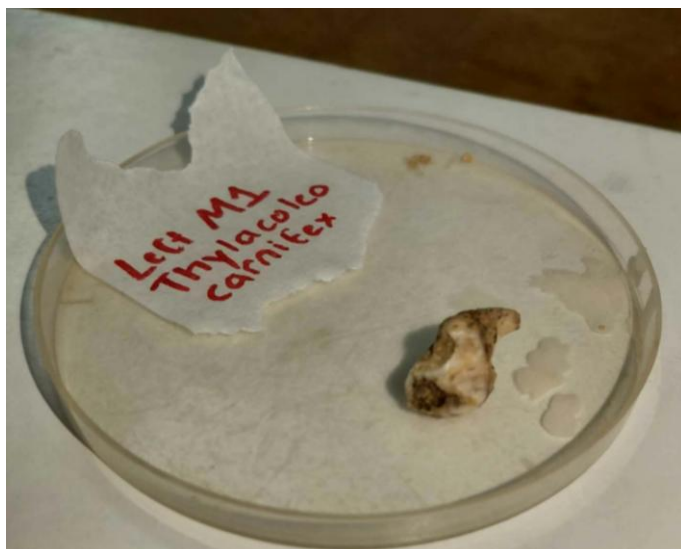
Of course, we are always looking for more submissions, so if you have anything palaeo related to share, send it our way. You may just be apart of the next issue.

- Zach.P

## Bone of the Month

*Gaige Wright*

For this issue's bone of the month, we decided to nominate a *Thylacoleo carnifex* molar found during our volunteering sessions! The tooth is remarkable in that material of the species is not common in either the Wellington or Naracoorte cave deposits we usually sort through. While both localities have produced multiple very informative partial skeletons of *T. carnifex*, material is rare to come by, especially during volunteering. Fossils and the surrounding dirt and mud are collected in bulk and brought back to the university for sorting. However, large chunks of bone are usually spotted and removed before they end up in a bag of dirt back in Adelaide, making its discovery pretty special.



*Thylacoleo carnifex* molar fresh from sorting!

## Did Megalodon Really Look Like a Lemon Shark?

*Aiden Ng*

*Otodus Megalodon*, or more commonly known as megalodon, is widely known as the largest fish and macropredator to have ever lived. It lived in the Miocene to Pliocene Epochs about 23-3.6 million years ago and was the apex predator of its time. Recent studies from March 2025 by Kenosha Shimada suggested that megalodon was even larger than previously thought at about 24.3 meters, or 80 feet in length, surpassing the former max estimates of 20.3 meters.

The study also suggested that megalodon had a more slender body than a great white shark, resembling more towards the lemon shark, but did megalodon really have the biological necessities to look like a lemon shark?

Surprisingly no, this is because despite having a more hydrodynamic body than great white, lemon sharks are built differently, and their entire niches and morphologies are completely separated making it more unstable for a mammal eating endothermic shark that uses thunniform locomotion with an extremely high metabolic rate. Megalodon and lemon sharks are also not relatives as lemon sharks belonged to the Carcharhiniformes while megalodon belonged to the Lamniformes, in fact the great white is actually more closely

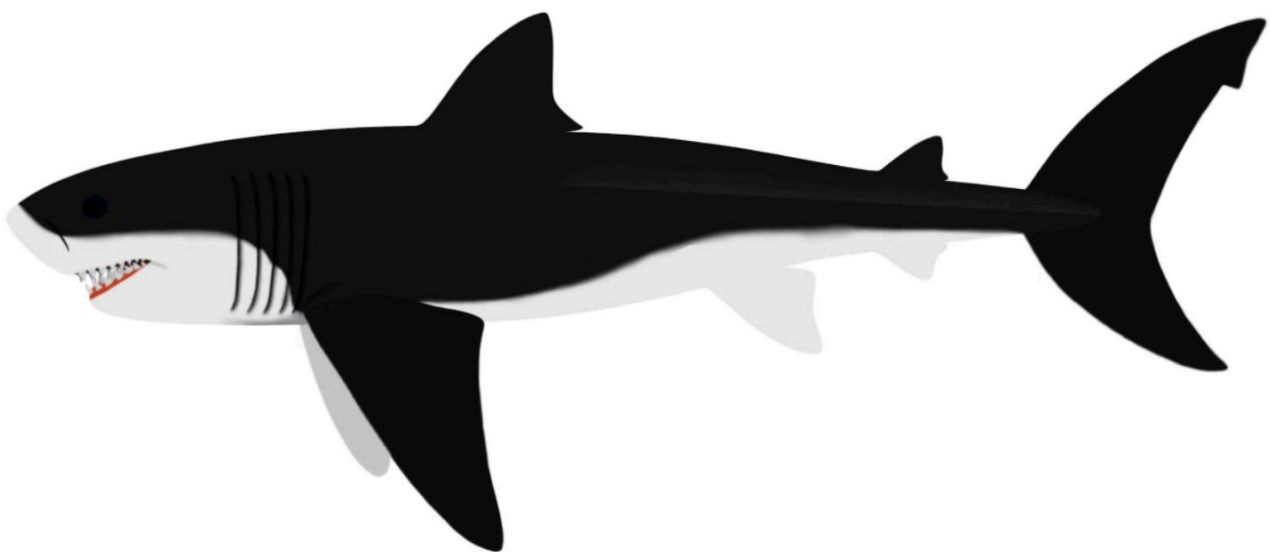
related to megalodon than lemon sharks. We also have no evidence of megalodons and lemon sharks exhibiting convergent evolution either, as all megalodon remains are completely differently shaped than that of lemon sharks.

The biomechanics and morphology of a lemon-like body for megalodon would be extremely unfitting as megalodon primarily ate large, energy rich prey like whales and sharks that usually eat whales have a wide thorax. The body type would've been very unstable for high speeds and during short bursts since the shark would be using carangiform locomotion rather than thunniform locomotion and with the shark's adaptations of living in shallow coastal waters rather than open waters like a true pelagic shark. The shark being very slim would have a relatively small liver meaning that it would have small pleuroperitoneal cavities which doesn't allow the shark to have the required metabolism and stamina to hunt its preferred prey choices or support itself as

shark livers are rich in squalene. Lemon sharks are ectothermic and hunt smaller animals thus making the megalodon incapable of thermoregulating itself nor would it have the required substantial energy storage capacity to support itself.

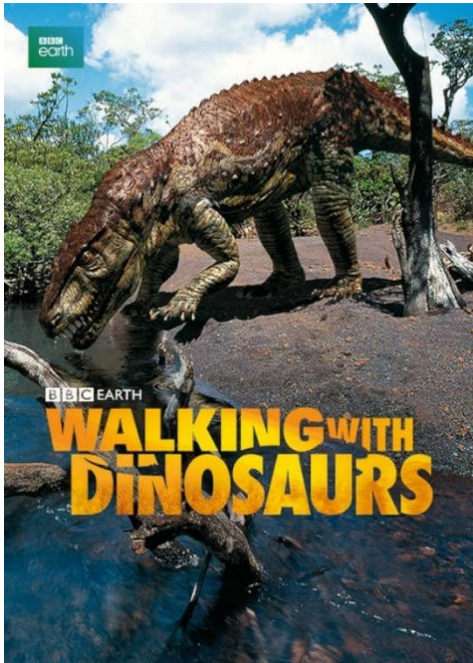
The closest living relative of megalodon is in fact the shortfin mako shark, thus making the mako shark a more suitable analogue as it has the proper body requirements for a megalodon to support its necessary requirements whilst maintaining a more slender figure than the great white shark.

Considering that makos have more robust bodies than lemon sharks, it would make it heavier with weight estimates pushing at about 107-111 tonnes using Kohler's regressions on southern shortfin mako sharks surpassing the 94-tonne weight estimate given by Shimada, so overall, the megalodon was indeed larger and heavier than previously thought.



## Successors to WWD?

Leon Linde



*Walking with Dinosaurs* (1999). Source: IMDb.

In 1999, the BBC released the documentary *Walking with Dinosaurs*. While it was hardly the first documentary about dinosaurs or other prehistoric animals, it was groundbreaking because of its nature documentary format. Each episode was an uninterrupted reconstruction of the lives of dinosaurs and other Mesozoic animals. Accuracy-wise, many things in the original WWD have not aged well, being based on now discredited ideas, and even ideas dubious at the time (one infamous inaccuracy was the extremely oversized *Liopleurodon*, though despite this “Cruel Sea” remains my personal favourite episode of the series). The cinematography and narration remain excellent, as does the format, in which each episode focuses on a specific point in time, going in chronological order

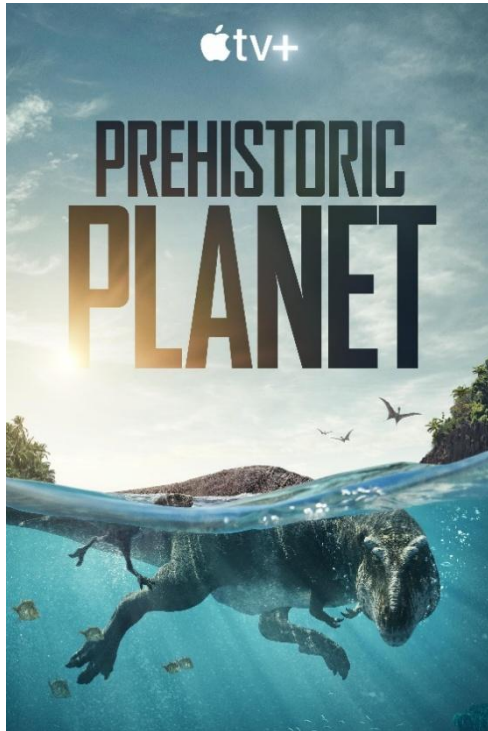
from the Triassic to the end of the Cretaceous. Is there any later documentary that can be seen as a worthy successor to the original WWD?



*Walking with Dinosaurs* (2025). Source: IMDb.

The most obvious choice would be the BBC’s 2025 documentary *Walking with Dinosaurs*. Unfortunately, it fell far short of expectations. Yes, it had more accurate dinosaur depictions than the 1999 WWD, but that is one of the only good things I can say about it. The 2025 WWD felt unbalanced, having five Cretaceous episodes, one Jurassic episode, and nothing for the Triassic. The 1999 WWD included a marine reptile episode (“Cruel Sea”) and a pterosaur episode (“Giant of the Skies”), but the 2025 version puts little focus on pterosaurs and even less on marine reptiles (the latter represented only by a pliosaur skeleton on a Jurassic beach). Worse, the nature documentary style shots are constantly interrupted by

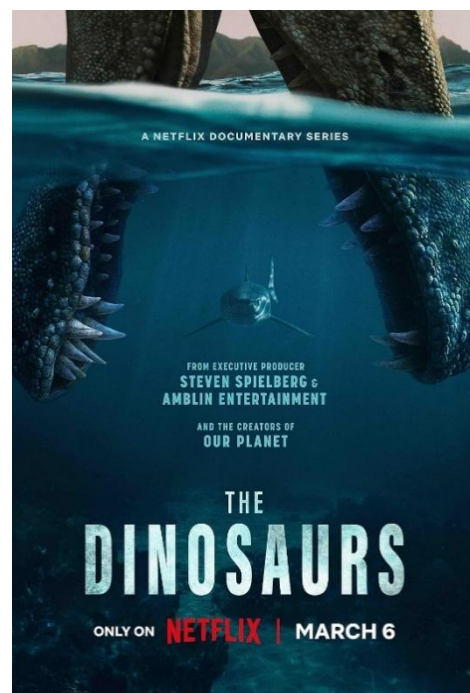
footage of palaeontologists in clearly staged scenes of discovery. Despite the name, the 2025 WWD had little to do with the 1999 WWD and was not worthy of the name.



*Prehistoric Planet* (2022-2025). Source: IMDb.

Apple TV's *Prehistoric Planet* (2022-2025) feels like a more worthy WWD successor, at least the first two seasons, both set at the end of the Cretaceous. The third season is about the Pleistocene and could thus be seen as a successor to *Walking with Beasts* (2001). Like the 1999 WWD, each episode is uninterrupted nature documentary style reconstructions of prehistoric life. Non-dinosaurian Mesozoic fauna are also given more focus. The palaeontologist interviews are relegated to special features outside of the episodes and show fossils relevant to each episode in a more natural, non-staged way (incidentally, FUPS members may

recognise Flinders University's Aaron Camens, who shows up in one of the special features pieces of the third season). This is one of the best palaeo documentaries to date, both in terms of accuracy and in its focus on good cinematography and narration. However, the fact that the first two seasons are all about the end of the Cretaceous makes it not quite live up to the broader scope of the 1999 WWD.



*The Dinosaurs* (2026). Source: IMDb.

Just recently, Netflix released a palaeo documentary called *The Dinosaurs*, which is essentially a spin-off of the 2023 series *Life On Our Planet*. Like the 1999 WWD, it shows an uninterrupted story of the “age of dinosaurs,” from the Triassic to the end of the Cretaceous. It even bothers to show the Early and Middle Jurassic, which even the 1999 WWD skipped over. However, everything is crammed into four episodes, with each showing multiple snapshots in time, so we

get little insight into any of the species or places shown. The documentary also promotes a highly outdated and inaccurate “clash of the dynasties” idea which was also a problem in *Life On Our Planet*. Arguably, the 1999 WWD was also guilty of this, but this is somewhat more understandable for a documentary from 1999 than for one from 2026.

Imagine if there was a documentary series that followed in WWD’s footsteps, with its focus on telling engaging stories, with each episode exploring a different snapshot in time, allowing for greater immersion, all while utilising the most up-to-date research. Such a thing would be the ultimate palaeo documentary. Unfortunately, such a palaeo documentary has yet to be made.

## **An Incredibly Important Study!!!!**

*Zach Pope*

This semester, I’m lucky enough to be studying biostats 2! How exciting! To help myself learn the content, I decided to conduct a groundbreaking study that seeks to measure how RAD people think Dinosaurs and Megafauna are out of ten to understand if there is a statistical difference between their QUANTIFIED RADNESS™. Here is that study:

### **Aims**

To understand whether Flinders University Students have the correct opinion about Dinosaurs and Megafauna (Megafauna are more RAD).

### **Hypothesis**

Dinosaurs will be rated statistically more RAD than megafauna (unfortunately).

### **Study design**

21 very cool people ( $n = 21$ ) were asked to rate the RADNESS™ of Dinosaurs and Megafauna from a scale of one to ten. Using this data, the mean RADNESS™ was calculated for both. The mean for Dinosaurs was found to be 9.52, whilst for Megafauna it was 8.4.

This data was ported into SPSS to find whether the mean RADNESS™ of Dinosaurs and Megafauna were significantly different. This could be done via hypothesis testing, which is a means of understanding whether there is a statistical difference between two (or more) means.

To figure out what form of hypothesis testing was required, both Levine’s test for variance and a Shapiro-Wilk test were undertaken. The Levine’s test returned  $> 0.05$ , therefore, the variance of Dinosaur and Megafauna RADNESS™ is assumed to be equal. This made my life much much much easier.

However, the Shapiro-Wilk Test returned  $< 0.05$ , therefore, the data was NOT a normal distribution. Rather than being a perfect, beautiful bell curve, the data was ugly and left skewed instead.

Hence, a non-parametric test was taken for hypothesis testing the RADNESS™ means. The test chosen was a Mann-Whitney U test, as both variables were independent of one another. This returned

a p-value of 0.043! Which is just below the value of 0.05. Therefore, there is a statistically significant difference between the mean RADNESS™ of Dinosaurs and mean RADNESS™ of Megafauna.

### Conclusion

To my utter dismay, through conducting hypothesis tests on the mean RADNESS™ of Dinosaurs and Megafauna, it was found that Dinosaurs are statistically more Rad than Megafauna in the eyes of Flinders University Students. In future studies, I WILL INTERVIEW MORE PEOPLE and make sure that the data is much more biased towards megafauna RADNESS™, I might even exclude dinosaur ratings above five just to prove my point.

Either way, this was an interesting study with groundbreaking findings. The most important take away is, although we may have different specific interests in Palaeontology, we can all appreciate how interesting all extinct things can be, and on average, will rate their RADNESS™ at least an 8/10.

## Old News

Here is an exciting list of recent-ish studies to keep everyone up to date on the Palaeontological field!

### FLINDERS RELATED

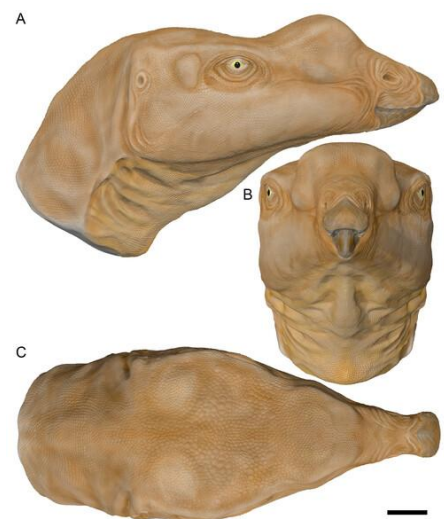
- Largest Silurian fish illuminates the origin of osteichthyan characters (Study)
- Limited dispersal leads to differing evolutionary trajectories between

adjacent continental and insular lineages in a widespread lizard radiation (*Gehyra*: Gekkonidae) (Study)

- New material of *Obdurodon insignis* (Monotremata: Ornithorhynchidae) from the late Oligocene Pinpa Local Fauna at Billeroo Creek, South Australia (Study)
- Tasmanian tiger footprints show the carnivorous marsupial once roamed South Australian coast (ABC article)

### OTHER NEWS

- Articulated hindlimb of a small-bodied ornithopod dinosaur from the Cenomanian Griman Creek Formation of New South Wales, Australia (Study)
- Brisbane dinosaur fossil is Australia's oldest (University of Queensland News)
- Cranial anatomy, palaeoneurology, palaeobiology and stratigraphic age of the large-bodied ornithopod, *Muttaborrasaurus langdoni* Bartholomai and Molnar, 1981, from the mid-Cretaceous of Australia (Study)

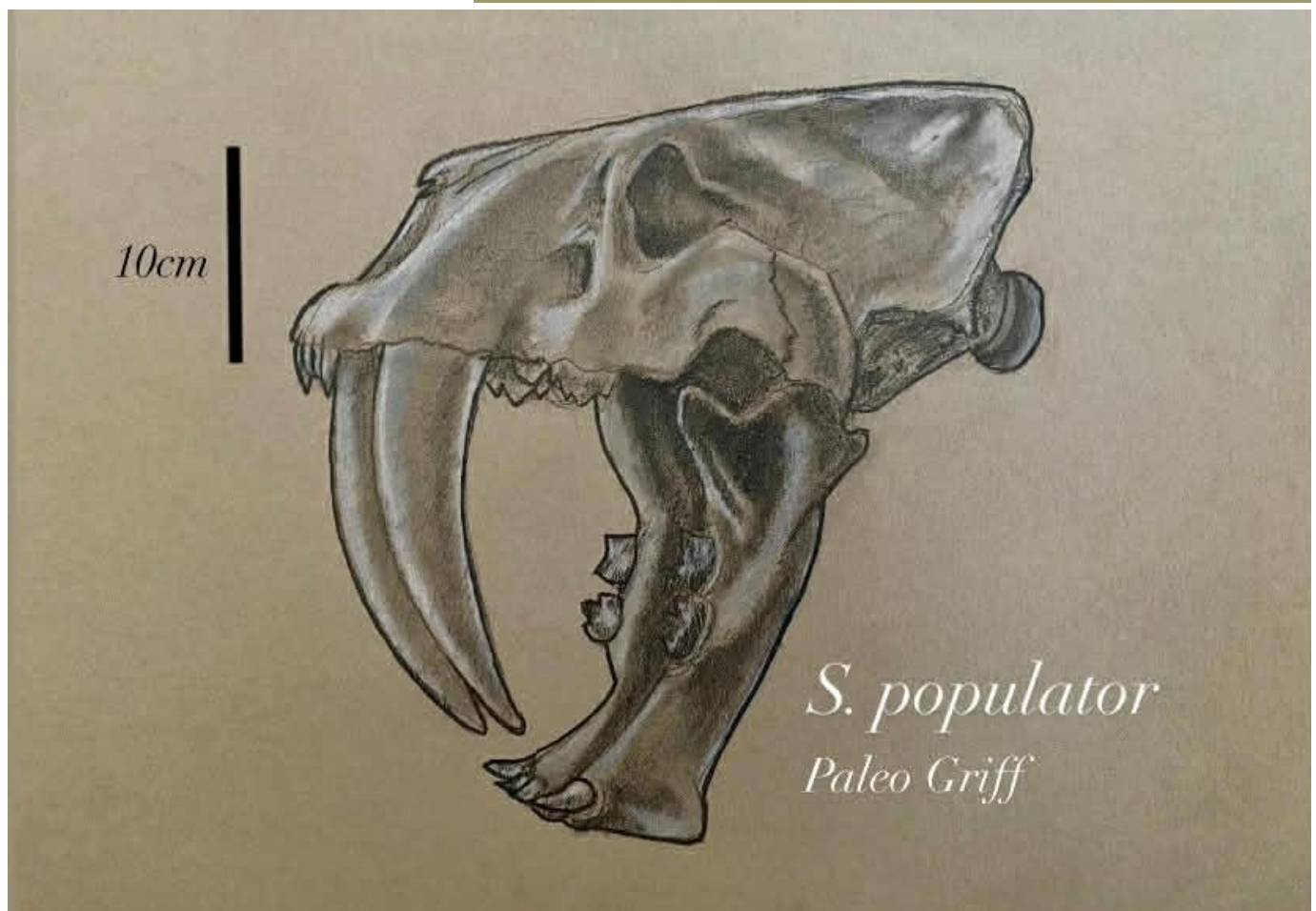
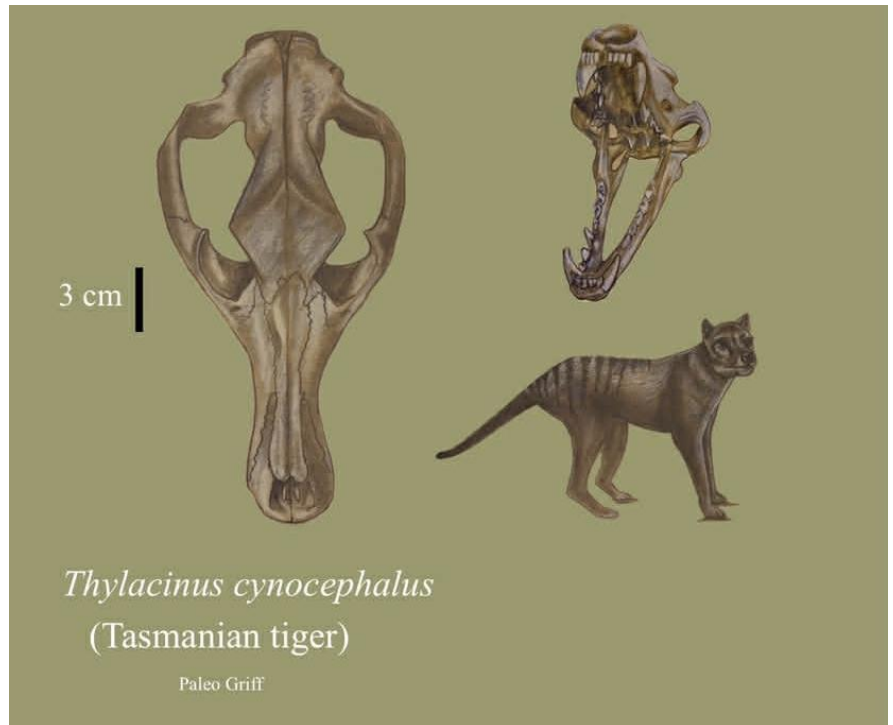


3D recreation of most palaeos I've ever met (Herne et al. 2026, see above)

# Palaeo Art Showcase

Art by Emily Griffiths

I have recently been artistically inspired by species that I think are very morphologically unique, or that stand out from the typical prehistoric specimens that are portrayed in popular media. The Smilodon is a special interest of mine that I think is such an interesting and unique creature and there hasn't been anything quite like it since.



## Field Work

*Vince Anthony Aberion*

We were headed up the steeper sides of the valley when we heard the close calls of the long-tailed macaques. With his bulky binder, our ethology professor swiftly covered one of the students' mouths. "No smiling!" the professor quietly exclaimed as he reminded us about the risks of showing teeth to primates. A few more deep calls were heard before the familiar sound of slapped skin against an unlucky insect signalled the time to retreat. While a resort would have been the preferable choice in this touristy town, we were unfortunate enough for one of the undergrads to have a cottage a few kilometres from the study site, albeit roads away from the town centre.

The cottage was quite dilapidated, with an old charcoal-stained kitchen and a few bamboo beds right by the tidepools. No walls, just a great view of the receding tide. As we got settled, I overheard a strange bark, which my professor quickly dismissed as another macaque call.

Although, to me, it sounded a little too deep to be from a small monkey, like a flute emitting the sound of a bassoon. Unfortunately, what followed was a lecture on habitats and karsts. I barely heard any of it out of sheer exhaustion.

As the professor rambled on about insular dwarfism, one of the students was struck by a small pebble. Taking advantage of the interruption, I headed towards what seemed to be the pebble's origin and

climbed atop an impressive boulder to scan the surrounding uplands. There was not much to see other than a couple of what looked to be fisherfolk descending the slopes. In hindsight, they seemed more like silhouettes of children waddling awkwardly and disappearing with the setting sun.

At around nine, we bathed ourselves in all sorts of repellents. Our bedroom, the shore itself, was now increasingly silent as the waves retreated far beyond what our ears could hear. As if enticed by the sea's absence, the land began to speak with all sorts of chirps, hisses, and the occasional deep bark. With all lights shut, the sky did not shimmer with stars as one might have expected. Instead, thick clouds shrouded the moonless horizon, along with a blanket of thick humidity. Picking the farthest bed from the cluster of snorers, I eventually found myself lulled to sleep by my own senses.

I later woke up to the sound of strange hoots and unintelligible murmurs from above our steel roof. I quickly tapped around the dark in search of my phone, feeling every corner as my pupils made sense of each faint shadow. I felt the presence ever closer, along with the unmistakable warm stench of musk. I began to move slowly in fear, finally identifying the smooth edges of my phone. Once again, I heard the deep bark. Closer, this time. And, as my fingers grazed the device, the numbers 00:13 appeared on the white screen, along with the creature's illuminated grin.

## Museum Trip 2026

*Zach Pope*

This year's museum trip was an absolute success, with over 50 FUPS members recorded at the annual event before we stopped counting. It was the perfect mixer, with both first and second years alongside veteran FUPS members attending the event.

The visit was led by our very own Aaron Camens, who generously shared his knowledge throughout the various exhibits of the museum. Each palaeontological exhibit had its turn, as we journeyed through time with Aaron, beginning in the Ediacaran, progressing through the Palaeozoic and Mesozoic, before finally arriving in the Pleistocene.

It was clear that the Pleistocene captured the groups attention. Aaron was on his toes, answering the many megafaunal focussed questions the group tossed his way.

The trip was certainly educational. In fact, it was so educational I wrote down some interesting facts I learnt:

- Some ammonite species may have survived past the K-Pg boundary!!!
- *Phascolonus* was initially believed to have had its skull crushed when the first specimen was discovered. However, as more material from the species was found, it was realised that the dome was an anatomical feature, not a freak accident.

Overall, it was a lovely day! I want to give a big thank you to the FUPS committee members who helped plan the event, I'm certainly looking forwards to what the rest of the year has to bring.



*Me before my morning coffee*



*Two cool dudes*

## First FUPS Field Trip

*Ravi Moss*

On the morning of April 4th, 20 FUPS members met President Sebastian Palominos Lara and Field Trip/Camp Coordinator Ravi Moss at Port Willunga Beach for a walk along the beach and a fossil hunting session.

The group walked south first, observing the Early Oligocene Port Willunga Formation, that included many invertebrates, from crabs and sea urchins to bryozoan colonies and brachiopods from eras past. The walk then turned to the north, and at Perkana (Blanche) Point the members were led to the Late Eocene Blanche Point formation. Members spotted fossilised shark teeth, with one graceful member donating theirs to the Flinders Lab to assist with current research on South Australia's fossil Elasmobranch fauna. Among these were fossilised sponges and corals, fossil nautilus, many gastropods and brachiopods alike.

FUPS is very grateful for all those that came out for an educational and enjoyable morning on the beach - one of many hopeful future field days for the current committee.

Thanks to Sebastian Palominos Lara, Harrison Morton and Gaige Wright for their assistance running the morning.

## Hopocalypse Hazy IPA

*Billy Smith*

You want something with a punch. You want something with fine hops. Get a load of this new hazy IPA from Little Bang Brewing Co. Using the renowned NZ Clayton hops, the Hopocalypse Hazy balances eloquent tropical notes of mango and passionfruit with a full-flavoured, bold, and crunchy palate. Coming in at a strong 7.2% ABV, the Hopocalypse presents perfectly for the autumn months—whether you need a tropical smasher for a warmer arvo or something with a bit of kick for those chillier nights.



*Hopocalypse Hazy IPA*

DO YOU WANT TO  
**WRITE**



FOR

**BEER 'N' BONES**

WELL YOU'RE IN LUCK!

The Beer 'n' bones team currently taking submissions! All submissions are welcome, as long as they're somewhat Palaeo related.

*Here are some general articles we encourage!*

- Poetry
- Artwork
- New Studies
- Opinion Pieces
- Beer and Media Reviews
- Travel Suggestions

One last thing: we prefer submissions to be between 200 - 1000 words.

Send all submissions to our email:  
[BeerNBonesSubmissions@gmail.com](mailto:BeerNBonesSubmissions@gmail.com)