ISSUE 20

AUSTRALIAN AGE OF DINOSAURS

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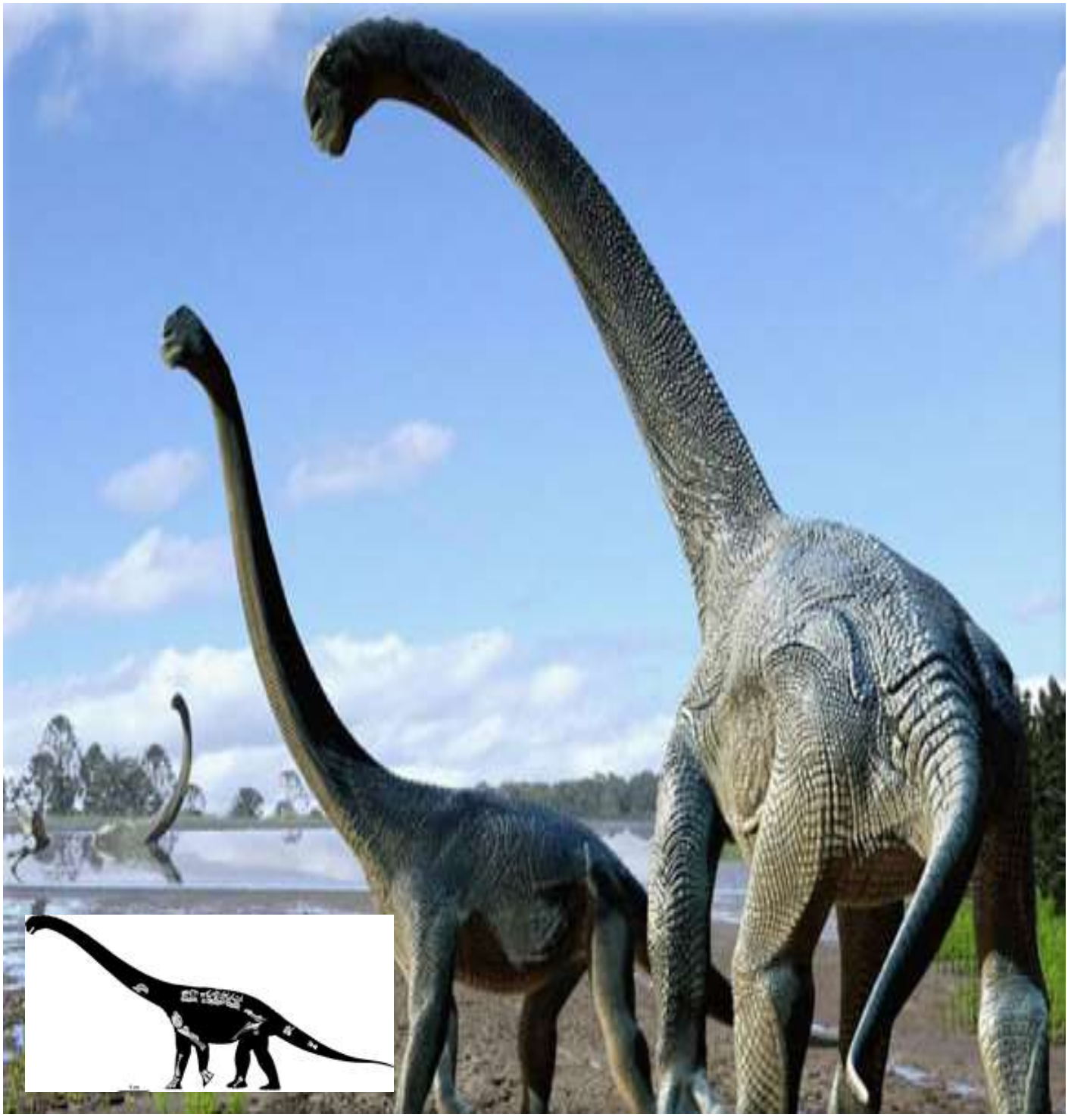
INTRODUCING WADE



NEXT NEWSLETTER—ISSUE 21, RELEASED MARCH 2017

NEWS FROM THE JUMP-UP

WINNERS - Winton's Australian Age of Dinosaurs won the Gold Award for Major Tourist Attraction at the 2016 Queensland Tourism Awards. Mayor Butch Lenton collected the award on behalf of our team, accompanied it to Longreach and drove it straight to AAOD to delivered it to David Elliott, AAOD Founder and Executive Chairman. Butch said, "It is a fitting recognition for David and his team to be judged best tourist attraction in Queensland. It is also a bonus for tourism in all of western Queensland and will help attract visitors to the west." Our team was filled with pride and excitement as they received this wonderful award.

Museum staff and their well-deserved award

David Elliott and Mayor Butch Lenton

THE NEW ROAD TAKES SHAPE

Winton Shire Council have been working hard on the Museum's road to lift the level and lay the first 4km of Dinosaur Drive with bitumen using funding through Queensland Government for Local Roads of Regional Significance. Staff and visitors have been watching the progress over the last three months. The first part of the bitumen was opened on the 13 October leaving a small detour area around the culvert sites. This means our beloved rollercoaster detour through the black soil channels has now been closed off. The next section will be placing the culverts in the flood-prone sections close to the highway. The unexpected rain this season has caused some delays in the progress of the road but we still expect it to be finished by late 2016.

PETE WORKSHOP

On 26 September the first plaster jacket from our new dinosaur Pete was opened in the Lab, and with that the Honorary Technician workshop commenced. The bones in this jacket have been identified as a femur, tibia and part of the pelvis. Based on the size of the femur (the upper thigh bone), we think that Pete will be the Museum's largest dinosaur. The femur is approximately 1.5m long suggesting this sauropod was approximately 20m long. In comparison, Australia's largest dinosaur Cooper from Eromanga has a femur that measures approximately 1.9m long. The length of the femur indicates that Cooper was between 24-26m long.

First jacket to be opened


The ribs

Another one of the Pete plaster jackets contains fragmented rib material from this dinosaur, broken into sections between 10cm and 15cm long. Similar to the limb elements discovered from this site, some of the ribs are quite fragile and require the application of the plastic resin paraloid to strengthen the bone.

Pete was discovered by digger Peter Vanderwerff in August 2012 when he wandered from the Dixie dig site. The Pete and Dixie sites are approximately 80m from one another and the bones could possibly come from the same dinosaur! However, we must fully prep the bones before we can solve this 95-million year-old mystery.


Pete's femur (thigh bone)


From left to right: Bev, Marg, Will and David get ready to open the first Pete plaster jacket.

For the most recent updated information from the laboratory go to our Facebook page.

Find us on: facebook

INTRODUCING WADE - *Savannasaurus elliottorum*

Dr Stephen Poropat and David Elliott

The Australian Age of Dinosaurs Museum has announced the naming of *Savannasaurus elliottorum*, a new genus and species of dinosaur from right here in Winton. The bones come from the our Winton Formation, a geological deposit approximately 95 million years old. The paper naming the new dinosaur is available on our website and was published on Thursday 20 October at 2pm BST in *Scientific Reports*—an open access, online journal published by *Nature*.

Savannasaurus was discovered by David Elliott while mustering sheep in early 2005. The site was excavated in September 2005 by a joint Australian Age of Dinosaurs (AAOD) Museum and Queensland Museum team and 17 pallets of bones encased in rock were recovered. After almost ten years of painstaking work by staff and volunteers at the AAOD Museum, the hard siltstone concretion around the bones was finally removed to reveal one of the most complete sauropod dinosaur skeletons ever found in Australia. More excitingly, it belonged to a completely new type of dinosaur. The new discovery was nicknamed Wade in honour of prominent Australian palaeontologist Dr Mary Wade.

"Before today we have only been able to refer to this dinosaur by its nickname," said Dr Stephen Poropat, Research Associate at the AAOD Museum and lead author of the study. "Now that our study is published we can refer to Wade by its formal name, *Savannasaurus elliottorum Stephen* said. "The name references the savannah country of western Queensland in which it was found, and honours the Elliott family for their ongoing commitment to Australian palaeontology."

Dr Stephen Poropat with Wade's vertebrae

Savannasaurus was a medium-sized titanosaur, approximately half the length of a basketball court, with a long neck and a relatively short tail. "With hips at least one metre wide and a huge barrel-like ribcage, *Savannasaurus* is the most rotund sauropod we have found so far—even more so than the somewhat hippopotamus-like *Diamantinasaurus*," said Stephen. "It lived alongside at least two other types of sauropod (*Diamantinasaurus* and *Wintonotitan*), as well as other dinosaurs including ornithopods, armoured ankylosaurs and the carnivorous theropod *Australovenator*."

George Sinapius with Wade's pelvis

David is relieved that Wade can now join Matilda and the other new dinosaur species on display in the Museum's Holotype Room, also known as the Collection Room, and says, "That this dinosaur specimen can now be displayed for our visitors is a testament to the efforts of numerous volunteers who have worked at the Museum on the fossils over the past decade." David and Stephen agree that the naming of *Savannasaurus*, the fourth new species published by the Museum, is just the tip of the iceberg with respect to the potential for new dinosaur species in western Queensland. "The Australian Age of Dinosaurs Museum has a massive collection of dinosaur fossils awaiting preparation and the number of specimens collected is easily outpacing the number being prepared by volunteers and staff in our Laboratory," David said. "The Museum already has the world's largest collection of bones from Australia's biggest dinosaurs and there is enough new material to keep us working for several decades."

LAB UPDATES by Adele Pentland

There have been a number of exciting developments made in the Lab, as volunteers and staff continue to prep the last dinosaur bones recovered from the Matilda dig site. Unlike many Museum dig sites, the Matilda site acted as the final resting place for two very different species of dinosaur, *Australovenator wintonensis* or Banjo and Matilda herself, *Diamantinasaurus matildae.*

Originally, the Lab team had intended to have all of the material collected from the Matilda dig site fully prepped, documented and supported by custom-made fibreglass cradles by 31 December 2016. The last plaster jackets from the Matilda site have been opened, and there are a number of bones from Matilda that have been fully prepped and require fibreglass cradles before they are put on display in the Collection Room. There are also a couple of trays containing small fossil specimens, 1-10cm long. It is highly likely that these smaller fossils belong to Banjo. As of 8 September 2016, 391 participants have volunteered their time and helped to prep our dinosaur bones in the Lab. This includes the 12 volunteers who have graduated and become Honorary Technicians during 2016.

I spoke with the Australian Age of Dinosaur's Laboratory Coordinator George Sinapius to hear more about the breakthrough discoveries made in our very own Lab during the latter half of 2016.

George, a number of months ago there was a lot of excitement surrounding one of the final plaster jackets from the Matilda site. You had hoped that, based on the shape and colour of the bone, it may have been Banjo's pelvis. What did it turn out to be? Maybe it was wishful thinking on our part, but unfortunately it isn't part of Banjo's pelvis. We had hoped it was the pelvis, as this would have contained a wealth of information and helped constrain the movement of this dinosaur. On closer inspection it's actually another one of the smashed vertebra from Matilda. Unlike the other vertebra from this dinosaur, it belongs to the neck.

Chisel block from the Matilda site

One of the most exciting developments from the Matilda site is the opening of the northern concretion. In particular, it's Matilda's toe bones that paint a very interesting picture and help support the interpretation this animal was bogged. What can we learn from this one plaster jacket? The northern concretion contains four, if not all five, of Matilda's toe bones and, based on the preservation of the toes, we think these bones were fossilised in position, or *in situ*. Similar to the other bones found at the Matilda site, these bones were preserved in siltstone, a fine-grained sedimentary rock. Siltstone indicates the bottom of muddy waterholes or ancient billabongs. These toes are in the upright position and are very well preserved, which suggests scavengers have not had a chance to scatter those bones.

Imagine a large sauropod with its legs stuck in the mud so deeply that not even carnivores are able to feast upon them. This would also explain why these toe bones are centimetres from one another, and all in the upright position. We can observe something similar happening today as sheep and cattle are also prone to getting stuck in the mud and are sometimes unable to pull their legs out of the mud. We think these large dinosaurs were also prone to getting bogged, resulting in very well-preserved toe and leg bones. It is also for this reason that we observe more sauropods than any other type of dinosaur in our deposits. The over-representation of a particular type of fossil, or in this case type of dinosaur, is referred to as taphonomic bias.

Matilda's toes

END OF SEASON INTERVIEW WITH STAFF

As our 2016 season comes to an end so do our seasonal staff contracts. This year we will be saying goodbye and good luck to some of our talented tour guides- Alan, Kat, Kate, Tanya, Bec - and our Café Coordinator Dayna. Alan will be heading to South Australia, Kate will be exploring Agnes Waters, Tanya is road-tripping from Winton to Adelaide seeing all the sites along the way and Bec has headed home to her family at Mudgee. Kat and Dayna will be staying in the Winton region for the foreseeable future, taking on new adventures. We would like to wish all our season 2016 staff the very best in their future endeavours.

TANYA

Would you describe yourself as a dinosaur nut? Sometimes yes, everything in moderation though. I have pretty broad interests.

What were you most looking forward to while working at the Museum? Getting paid to talk about dinosaurs and ticking off going on a dinosaur dig from my bucket list.

If you could take anything home from the Museum when you leave what would it be? The first bit of Matilda's rib that George had me work on. It had beautiful preservation and it felt privileged to work on it. It was beautiful and pleasing to touch. It was difficult to comprehend I was handling a piece of a creature that walked the Earth 95 mil lion years ago.

If you had a spare $5 million and could choose to donate it to the Museum what would you fund? I'd split it between a few ideas. It would be cool to have a travelling dinosaur museum like the Queensland Questacon Science Circus, and go all across Australia. It would also be awesome to see more of Lark Quarry excavated and the building extended to protect it. Lastly, funding more research of the Winton fossil material as there are heaps of highly qualified scientists in Australia who need a job and there are lots of undescribed material that I'd like to see shared with the wider scientific community.

If you could create your own souvenir what would it be? A 10cm bronze model of Banjo's reconstructed foot that could be used as a paper weight or turn over to use the bottle opener on the bottom.

KATE

Who or what has made the biggest impression on you? Definitely David. If you want an example of one person who can make a difference this is your man and, of course, his family standing with him. David is like a modern day Ghandi. He is quiet and humble and just one of those people you want to be around. Underneath that he must have the smarts to have started all this, see the fine detail and to also have the vision of that bigger or future picture. All the work he has put into the Museum he hasn't got any personal gain from and, as I see it, he wants to bring everyone up around him and to benefit the whole. Also George who is unknowingly teaching me how to always see the best in everyone.

What is one example of an unusual question you were asked? Did Banjo have red or white meat? After explaining dark and light muscle and why chickens have dark sections of meat, I realised the question they were actually asking was "steak or fish?"

If you lost power during a tour, what would you do? Wing it. This did happen at Lark Quarry with a group of journalists and was one of the most fun and enjoyable tours ever! The group was fantastic, enthusiastic and came complete with torch light from our phones. I think this was one of the best tours I have ever done.

What fossil from Queensland do you wish you had found? Does the meteorite count?

Describe your experiences in Winton in three phrases or your favourite thing about Winton? A place of extremes and paradoxes? My good friend and fellow guide Tanya tells me that this also describes me perfectly!

DAYNA

If you had 30 minutes to talk about only one display at the Museum what would it be? Old mate Banjo or *Rhoetosaurus brownei*.

If you had the honour of naming a new dinosaur , what would you call it? Bronosaurus or Daynaisgreatasaurus.

How many new dinosaur items do you own since working at the Museum? Nearly all of the plush fellas.

Best meal you have had while in Winton? A Parmy at the Boulder and Outback Chicken at The Winton Hotel.

Describe your experience at the Museum in three words. Awesome, crazy and hilarious.

Merry Christmas

Q. Why did the dinosaur cross the road?

A. Because the chickens hadn't evolved.

Q. What do you call a dinosaur with an extensive vocabulary?

A. Thesaurus

Q. Which dinosaur can't stay out in the rain?

A. The Stegosaur- rust.

Q. What do you call a dinosaur that eats its veggies?

A. Broccoliasoarus

Colour In Santa and his Dino-Deers