

New theropod dinosaur discovered in western Queensland, Australia

The Australian Age of Dinosaurs Museum and the University of New England today announced the discovery of a theropod dinosaur near the town of Winton, western Queensland, Australia. The fossilised bones were recovered from a cattle station located in the northern margins of the Winton Formation, a geological deposit that is approximately 95 million years old.

The paper describing the new theropod, available at http://dx.doi.org/10.1098/rsos.191462 was published on Wednesday, 15 January at 11am AEST in the *Journal of the Royal Society Open Science* – an open-access online journal published by The Royal Society in London.

The new site, which held the remains of small, fragmented fossil bones, was discovered by Bob Elliott on a property west of Winton in 2017. Subsequent digging at the site in May 2018 by the Australian Age of Dinosaurs Museum recovered around fifteen partial limb bones and several vertebrae. The bones were identified as the remains of a medium-sized megaraptorid by Dr Matt White, lead researcher from the University of New England in Armidale. "Although no well-preserved bones were recovered from below the surface, I was amazed to find it was a theropod, the second to be discovered from the area" said Dr White.

Following examination of the specimens, Dr White and his research team were able to identify two incomplete caudal vertebrae, the ends of three metatarsals and the end of a left pedal phalanx. While the fossilised remains were considerably weathered, subsequent preparation and comparative research revealed a close skeletal affinity to Australia's most complete theropod dinosaur, *Australovenator wintonensis* which was discovered nearby in 2006.

According to Dr White, the new theropod belongs to a group of dinosaurs called megaraptorids — carnivorous theropod dinosaurs that are characterised by their serrated, blade-like teeth, huge muscular arms and razor-sharp claws. "The bones discovered are slightly larger than *Australovenator* and show anatomical variations indicating that they may belong to a new species" he said.

Australian Age of Dinosaurs Museum Founder David Elliott said that although numerous fossils from long-necked, herbivorous sauropod dinosaurs have been discovered in the Winton area, the bones of theropods are extremely rare. "The Museum has excavated dozens of sauropod sites over the past 17 years and we have found the teeth of theropods at many of them" he said. "This indicates that there may have been quite large numbers of theropods like *Australovenator* around at this time."

White MA, Bell PR, Poropat SF, Pentland AH, Rigby SL, Cook AG, Sloan T, Elliott DA. 2020 New theropod remains and implications for megaraptorid diversity in the Winton Formation (lower Upper Cretaceous), Queensland, Australia. R. Soc. open sci. 7: 191462. http://dx.doi.org/10.1098/rsos.191462