Billabong Bonebed

The greatest concentration of dinosaur bones ever found in Australia were at the bottom of A 100 million-year-old billabong.

Here the bones of *Australovenator wintonensis* (Banjo) and *Diamantinasaurus* matildae (Matilda) were found. Several hundred bones were recovered from this small area, piled up one on top of another, as shown in the map of the site. The ancient billabong deposit continues on to the North, where it's expected more secrets lie buried.

N

Banjo

Matilda bone

Banjo bone

Unidentified bone

Rock concretion

1 metre

Scientific name: Australovenator wintonensis (Hocknull et al. 2009) **Pronunciation:** oss-tra-low-ven-ah-tor win-ton-en-sis Winton's Southern Hunter Etymology: Classification: Theropoda, Allosauroidea Discovered: June, 2006 Approximately 5 m Length: Height: Approximately 1.5 m high at the hip Approximately 500 kgs Weight: Geology: Winton Formation, central western Queensland Mid-Cretaceous (Latest Albian) 100-98 million years ago Age: Custodian: Australian Age of Dinosaurs Museum of Natural History (AAOD) **Fossil Material:**

Holotype specimen (AODF 604): Nine isolated teeth; left dentary (lower jaw); right and left dorsal (trunk) ribs and rib fragments; right and left gastralial (stomach) ribs and fragments; partial right ilium (pelvis); both ulnae (forearm bone); right radius (forearm bone); manus metacarpals (finger bones), hand phalanges and unguals (claws); right femur (thigh bone); both tibiae (shin bones); right fibula (shin bones); right astragalus (ankle bone); pes metatarsals (foot bones), foot phalanges and unguals (claws) as illustrated above. Additional material awaits preparation.

Fossil remains of theropods (carnivorous dinosaurs) number only a few in Australia, with all discoveries represented by only one or two bone fragments. Banjo's skeleton is Australia's most complete theropod skeleton, numbering dozens of bones and many more awaiting mechanical preparation. Banjo's skeleton has been designated as the holotype specimen for a completely new genus and species of theropod dinosaur, named *Australovenator wintonensis*.

Based on bones prepared so far, Banjo can be classified as an allosauroid theropod, most closely related to two similar allosauroids; *Fukuiraptor* and *Neovenator*. *Fukuiraptor* was found in Japan and *Neovenator* from the Isle of Wight in southern England; both found in deposits older than *Australovenator*. Banjo's bones show that *Australovenator* shared many features with primitive allosaurs and a more advanced theropod group called the carcharodontosaurids, a family of theropod dinosaurs found in Europe, North America, South America and Africa. Based on shared features it's possible to place *Australovenator* on the family tree of allosaur theropods. *Australovenator* was most likely the descendant of *Fukuiraptor* and the ancestor to *Neovenator*.

Twenty eight years ago a dinosaur bone was discovered near Eagles Nest in southern Victoria. Once prepared, the bone was immediately recognisable as an astragalus (ankle) of a theropod dinosaur. In 1981 it was thought to belong to a dwarf species of *Allosaurus*, based on very similar features it shared to the larger Jurassic-aged dinosaur, *Allosaurus fragilis*. Debate surrounding this one bone has swung back and forth in and out of favour of it's identification as a specimen of *Allosaurus*. Now, twenty eight years later, we can confidently assign the astragalus to *Australovenator*, an allosauroid.

Killing Claw

Banjo's unusually large killing claw would have been about 30 cm long when fully sheathed in cuticle. The claw is in the "thumb" position and would have been a primary weapon.