

## ALCOOTA EXPEDITION REPORT



13 Waterhouse Club members and 5 scientists attended the expedition to the Alcoota Scientific Reserve within the Alcoota cattle station. The two square km reserve situated 105 km north east of Alice Springs is Australia's most significant mega fauna site from the Late Miocene Age.

Expeditioners arrived in Alice Springs on 23<sup>rd</sup> June and attended an introduction to Alcoota megafauna at a "behind the scenes" event in the Gallery and Laboratory of the Museum and Art Gallery NT (MAGNT) lead by Dr Adam Yates, curator of fossils. The next day we travelled in convoy to the Alcoota site and set up camp within the reserve and around the established buildings. We camped with relative luxury facilities - refrigerators and lighting powered by generator, a long drop toilet, and a modest shower with a wood fired donkey heater.

The team onsite included our scientists: Dr Adam Yates (Senior Curator of the NT Museum), a paleontologist whose knowledge of comparative anatomy was astounding; Dr Trevor Worthy (ARC Fellow from Flinders University School of Biological Sciences), an expert in the "flightless big birds"; Warren Handley (PhD student), whose enthusiasm and love of his research infected most of us; and Jarrod Archibald (Curator of the NT Museum or MAAGNT), whose skills warrant the title 'Master of Everything'. Jarrod not only supervised one of the pits (Broken Dreams), he fixed the generator, organised wood for those who wanted a warm shower, provided expert knowledge on the bird life at Alcoota as well as the Bombing of Darwin during World War 2. We were also in the company of the well-known arid botanist Peter Latz who grew up at Hermannsburg. Peter had an intuitive knowledge of all aspects of the environment and the local Aboriginal culture, which included a lesson in cooking kangaroo tail on the campfire.



The dig site comprised of three pits: Main Pit, Broken Dreams and South Pit (Peter has for many years been the master of South Pit). All had been excavated previously but with the two-year gap between digs soil had to be removed before the finer work could commence. Each pit had its own character and revealed a miscellany of animal bones around 8 million years old, mostly stuck together with unrelated specimens; ‘a jumble of bones amidst the remains of an ancient waterhole’ (NTG brochure).

For 7 days we worked across 3 pits discovering, cleaning and carefully extracting megafauna fossils using small brushes, dental picks and glue. The scientists readily answered the many questions covering the big picture and the detail of how, when and why without which this extraordinary experience for all expeditioners would not have happened. The groups in each pit responded with enthusiasm and stuck to the task of “getting their bone out”, maintaining a competitive spirit for the duration of the expedition – who would find the best fossil or a new species? Whilst it was thought no new species were found, many larger and improved fossils were successfully extracted, adding value to the MAGNT collection. Some specimens were also transported back to Flinders University for preparation. We were later advised that a new species will likely emerge – watch this space!



In true Waterhouse Club tradition we “ate like kings” thanks to Roy Price, a retired nutritionist and camp caterer. Expeditioners keenly pitched in with the kitchen chores, including providing freshly baked cake and bread cooked in the camp oven, soups, and other creative delights. The evening meals were enhanced by fine wines, followed by interesting presentations and jovial banter around the campfire.



The scientists were thrilled with the enthusiasm, diligence and overall contribution made by the Waterhouse Club team and an invitation was extended to “come again”.

**Don Heylen, Expedition Leader.**

**ALCOOTA DISCOVERIES – Blackboard Records**

<p><b>REPTILES</b> Squamata 1. Varanus sp. (Goana)</p> <p>Testudines 2. Chelodina murrayi (Turtle)</p> <p>Crocodylia (Crocodile) 3. Baru sp.</p>	<p><b>HIGHLIGHTS</b></p> <ul style="list-style-type: none"> <li>• Varanus ilium</li> <li>• Wakaleo humerus</li> <li>• Large Plaisiodon skull</li> <li>• Emuarus tibiotarsus</li> <li>• Associated Kolopsis I. lawson tmt best ever</li> </ul>
<p><b>BIRDS</b> ?Anatidae 4. a duck (possibly a flamingo)</p> <p>Dromornithidae 5. Dromornis stirloni 6. Ilbandornis lawsoni</p>	<p><b>GOOD STUFF</b></p> <ul style="list-style-type: none"> <li>• Dromornis femur</li> <li>• Dromornis tmt x 2</li> <li>• Kolopsis skull</li> <li>• Wakaleo Lingual (claw)</li> <li>• Wakaleo metacarpal</li> </ul>

<p>7. <i>Ilbandornis woodburnei</i></p> <p>Casuariidae</p> <p>8. <i>Emauarus</i> sp</p>	
<p><b>MAMMALS</b></p> <p>Thylacoleonidae</p> <p>9. <i>Wakaleo alcootaensis</i></p> <p>? Palorchestidae</p> <p>10. ? <i>Palorchesles painei</i></p> <p>Diprotodontidae</p> <p>11. <i>Pyramios alcootense</i></p> <p>12. <i>Kolopsis torus</i></p> <p>13. <i>Plaisiodon centralis</i></p> <p>Macropodidae</p> <p>14. <i>Dorcopsoides fossilis</i></p> <p>15. <i>Hadronomas puckridgei</i></p>	