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MEDIA RELEASE

Rare 'dino-bird' fossil has palaeontologists in a flap

100 million year old bones from a miniature prehistoric 'dino-bird' have been discovered by museum volunteers in an outback gravel quarry – revealing new insights into creatures that once flew above Australia's ancient inland seas.

The recently discovered fossils were found by Mr Mike D'Arcy, a regular volunteer at Richmond's marine fossil museum (Kronosaurus Korner). "I've been collecting bags of rock from [Richmond's] gravel quarries for years, breaking it down at home and sieving the material for small fossil shark teeth," said Mr D'Arcy. "Lately, however, I've been unearthing tiny fossils that I didn't recognise. Some [of the bones] look like miniature claws designed to slash flesh like those from a *Velociraptor*! They got me really excited."

Mike knew he had found something special, so he decided to have his fossils identified by the museum's curator and interpretation manager, Dr Patrick Smith. "When Mike handed me the specimens, I was just dumbfounded," exclaimed Dr Smith. "To me, as a professional palaeontologist, I've never seen fossils that are this rare."

Since Mike's preliminary finds, other museum volunteers have started imitating his methods for collecting dino-bird fossils. "It's great to see so many people working closely with the museum," remarked Rachel Smith, another volunteer hunting for these microscopic marvels. "Without people to make these discoveries, many of the fossils could have easily been lost or destroyed."

Currently the dino-bird finds have included claws, limb bones and a section of jaw. These new bones likely represent a creature named *Nanantius eos*, a dino-bird that belonged to an extinct group known as enantiornithines. "These creatures retained the teeth and clawed hands from their dinosaur ancestors, but otherwise looked very similar to modern birds," explained Dr Smith. "Just imagine a cross between a modern crow and a little meat-eating dinosaur."

Around 100 million years ago the small outback town of Richmond was at the centre of a massive inland sea. This is not where you might expect to find bird fossils, as they are typically collected from rocks that were deposited in primordial lakes and rivers. "It's possible that *Nanantius eos* may have flown over the open sea in search of food like modern gulls," explained Dr Smith. "Previous finds near Boulia have shown enantiornithine bones inside the stomachs of marine reptiles (like ichthyosaurs), suggesting they spent a great deal of time over open water. Hopefully these new discoveries in Richmond will shed light on their ecology."

The specimens are now on display at Kronosaurus Korner for the public to enjoy. "These tiny fossils act as a timely reminder of Australia's rich geo-heritage. I marvel to think of what else lays waiting in the ground to be unearthed. It's vital that we collect, conserve, and study fossils so that we can continue to learn about Australia's incredible past," said Mr D'Arcy.

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