

MEDIA RELEASE

FROM THE UNIVERSITY OF TASMANIA

DATE: MONDAY 19 DECEMBER 2011

ATTENTION: Chiefs of Staffs; News Directors



Significant new fossil record unravels mystery of ancient mammal ancestor

They had tusks more than 10 centimetres in length and a horny beak, were the size of a bull, ate plants and were distant ancestors of modern mammals.

A team of researchers from the Queensland Museum, the Department of Geology at the University of Tasmania and the Zoology Department at Latrobe University have described the first dicynodont bones to be found in Tasmania.

Queensland Museum head of geosciences Dr Andrew Rozefelds, a former deputy director collections and research at the Tasmanian Museum and Art Gallery, said the find was of great significance and is only the second known record in Australia of this age.

“Dicynodonts have been found in every other continent, including Antarctica. It is a mystery as to why so few bones were found in Australia, but this new find fills an important gap in our knowledge of these mammal-like reptiles and where they lived,” Dr Rozefelds said.

“The newly described bone is part of a skull and a partial tusk, and is the largest specimen to be found in Australia.

“Dicynodonts literally meaning 'two dog tooth', were large and bizarre-looking creatures living before the age of dinosaurs.

“These fossils very clearly show that large dicynodonts were indeed in Australia, as well as elsewhere in the world.

Sedimentology expert Dr Stuart Bull from the University of Tasmania said the fossils were found at a site on the Tasman Peninsula in Tasmania, dated at about 250 million years.

“Beautifully preserved amphibian skulls and the occasional lungfish bone have also been found near the site,” Dr Bull said.

The fossil site in Tasmania was discovered in 2007 by Bob and Penny Tyson while walking along the coast. The bones found in Australia are fragmentary so researchers are not sure which group of dicynodonts they are related to.

The researchers said this new find as well as fossils from Queensland were helping to unravel the secrets of the dicynodont. "Two other fragments of bone, of a similar age, were found in Queensland in 1983," Dr Rozefelds said.

"A remarkable discovery in 2003, also from Queensland, although from much younger sediments, has provided startling evidence that dicynodonts may have survived longer in Australia than anywhere else in the world.

Dr Rozefelds said that when you consider that these animals were the size of a bull, it is surprising that all the bones that have been found in Australia so far would fit into a small shoebox.

"There is still much more to learn about these amazing creatures," Dr Rozefelds said.

"It is tantalising to know that there must be more complete specimens to be found and how little we still know about the history of life in Australia."

One of the many mysteries is the species' very obvious tusks and their use which has led to much speculation, with researchers suggesting theories such as them being used for digging up plants to sexual differences between males and females.

The paper has been published in the international *Journal of Vertebrate Palaeontology* and the specimens are stored at the Tasmanian Museum and Art Gallery.

Information Released by:

The Media Office, University of Tasmania

Phone: 03 6226 8518; Mob. 0429 336 328 (Peter Cochrane)

Email: Media.Office@utas.edu.au