LEAELLYNASAURA AMICAGRAPHICA

One of the results of Tom Rich's decision to go ahead with a cross tunnel between the west and east tunnels at the Slippery Rock site was the discovery of the partial skeleton of a juvenile dinosaur. In his 1987 Dinosaur Cove annual report Tom wrote:

"Then on 23 February, the fiftieth day of the 1987 excavation, fossils started turning up in abundance in the Cross Tunnel. The following day, a partial skull of a small dinosaur was found in two pieces about 20 centimetres apart. The next day, two segments of vertebrae were found, one of which later was discovered to be associated with a partial hind limb. This is the first partially articulated dinosaur skeleton from Dinosaur Cove."

After some preparation it became obvious that the little dinosaur was an ornithischian dinosaur - a small, fast running, bi-pedal herbivore that probably lived in small herds.

Leaellynasaura amicagraphica was named after Tom Rich and Patricia Vickers-Rich's daughter Leaellyn. The specific name "*amicagraphica*" is to jointly honour the Friends of the Museum (*amica*) without whose "unswayable prodding it is likely that the systematic excavation at Dinosaur Cove might never have started. And finally, *graphica* refers to the ever-patient, always supportive National Geographic Society for their long-term faith in and backing for our worth" (T.H. Rich. Dinosaurs of Darkness 2000 pp 63-64).

Apart from being the first partially articulated dinosaur from Victoria, Leaellynasaura also had a few surprises of her own. The top of the skull had broken into two pieces revealing a perfect mould of the top of the brain. The left optic lobe is visible in the lower left corner of the brain and its large size relative to the optic lobes of small ornithopod dinosaurs from lower palaeolatitudes suggests that *Leaellynasaura amicagraphica* may have had enhanced vision in low light conditions, such as during a polar winter.

Another surprise occurred many years after her discovery when researchers tried reconstructing her tail. They discovered that *Leaellynasaura* has an unusually long tail, containing over 70 tail vertebrae, which is virtually unique in dinosaurs. Research into *Leallynasaura* continues with the discovery of a second partially articulated skeleton, also found in the Cross Tunnel, which was a slightly larger individual. This animal suffered from Osteomyelitis, a bone disease which caused a large amount of calcified tissue to build up on its tibia (bone in lower leg). How this animal managed to survive for a length of time after injuring its leg is a mystery. Author Catriona Hoy and artist Andrew Plant wrote and illustrated a beautiful children's book called The Little Dinosaur, which tells the story of this dinosaur from Dinosaur Cove and what may have happened to it.

References:

Thomas H. Rich and Patricia Vickers-Rich. **Dinosaurs of Darkness**. Indiana University Press 2000. pp 222.

Catriona Hoy and Andrew Plant. **The Little Dinosaur**. Working Title Press 2012.

Leaellynasaura amicagraphica skull, showing large optic lobe in lower left corner.
Courtesy of T.H. Rich Collection.

Lower leg of second Leaellynasaura, showing evidence of Osteomyelitis in the tibia.
Courtesy of T.H. Rich Collection.