

Dinosaur Cove: How It All Began

Dinosaur Cove, west of Cape Otway, was the locality where Victoria's first dinosaur dig was held in 1984. The story of why and how it was found is set out below in an excerpt from Dinosaur Cove's first annual report, written by Dr. Tom Rich:

The first dinosaur specimen found in Victoria was discovered near the turn-of-the-century near Inverloch. In 1978, Mr. Timothy F. Flannery began a concerted effort to locate additional dinosaur remains in the Cretaceous exposures on the shore platforms near Inverloch. This work on the flanks of the Strzelecki Ranges demonstrated that the fossil remains of dinosaurs and other terrestrial vertebrates could be found in those rocks if enough effort was put into locating specimens.

Recognising that Cretaceous rocks similar to those in the Strzelecki Ranges occurred on the shore platforms flanking the Otway Ranges, an attempt was made to locate fossil vertebrates in the latter area. Beginning at Eastern View in 1979, all the accessible shore platform outcrops of the Otway Group were examined in a reconnaissance survey that extended to Pebble Point. Significant fossil concentrations were found at four sites as a result of this work. Within three of the sites, the fossils were so widely scattered that in excavating a specimen, no others were found. This suggested that it was not practical at these to locate additional fossils by systematically digging through the rock. However, at the fourth site called Dinosaur Cove, the fossils were found concentrated in a small channel deposit where digging did result in the discovery of fossils that were not initially visible on the surface.

This fossiliferous channel deposit represented the course of a small stream that flowed 110 million years ago and subsequently became filled with sediment. The sediment included sand, layers of plant material, clumps of clay, an occasional rock and an even more occasional fossil bone. Presumably, the bones accumulated in the bottom of the stream just like the other particles of matter found there. No groups of associated bones or skeletons were found so it appears likely that the animals from which they came died elsewhere. After the carcasses had rotted, the bones of the skeletons were transported individually, some to eventually become buried in the channel at Dinosaur Cove and preserved as fossils. In the intervening 110 million years, the initially soft sediments that filled the stream channel became hardened into rock and the rock was uplifted as part of the Otway Ranges. Finally, the ancient stream channel was exposed by the erosion of the sea.

Next month we discuss the logistics involved in excavating a fossil layer at the base of a 90 metre cliff and what happened at the end of the 1984 dig which nearly wiped Dinosaur Cove off the map!



View of Dinosaur Cove from top of the cliff. Courtesy of T.H. Rich Collection.



Early excavations at Dinosaur Cove. Fossil is at the base of a 90 metre cliff. Courtesy of T.H. Rich Collection