

Digging up the past



Digging deeper...

The Shag Point plesiosaur

Otago is also home to older sandstone deposits. The Shag Point plesiosaur was found by an amateur fossil collector in the 1980s. It is a unique specimen, the only one of its species in the world, and New Zealand's largest fossil. You can see it in *Southern Land*, *Southern People*.



Digging deeper...

There's a lot more to Otago's fossils than whales and plesiosaurs. Fossils are also used by researchers to provide information about what happened after the great extinction that included all the dinosaurs. This extinction left many niches open, which triggered the evolution of many new species to fill these 'empty' spaces.

The Waitaki and indeed much of the rest of Otago and New Zealand were underwater around 30 million years ago. In the period from around 30 to 20 million years ago sediment built up on the ocean floor, burying the remains of many forms of animal life. Some of these remains have since been exposed again by land uplift and erosion.

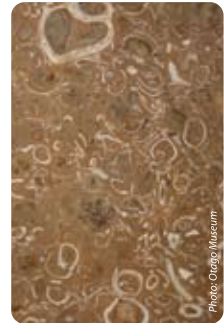
The fossils of this time period, known as the late Oligocene and early Miocene period, include many large sea animals such as whales and sharks. You can see some of the fossils at the Otago Museum, in *Southern Land*, *Southern People*, and many more at the Geology Museum at the University of Otago. They are particularly well preserved because they were never buried very deep.

The whale fossils found in the Waitaki Valley are very important because they provide early records of the ancestors of many of today's whale species. The late Oligocene was a time when toothed and baleen whales underwent very rapid evolution, and some of these fossils have provided us with the 'missing links' between current species and older fossils.

Interested in finding out more or seeing exactly where these fossils come from? Pick up a copy of the Vanished World Fossil Trail brochure and travel the Vanished World Trail. This trail takes you along the Otago coast guiding you to easily accessible sites that help tell the story of the undersea world that once thrived in the Waitaki Valley area.



The Shag Point plesiosaur in *Southern Land*, *Southern People*



Fossilised shells in Duntroonian sandstone

