

# MOA OF WAITOMO

The first recorded collection of moa bones from caves in the Waitomo region was made by A S Thomson in 1849, who with the aid of Maori guides obtained material from two caves in the region. He, in turn, was followed by other explorers and collectors. However, it was only with the advent of organised cave exploration in the 1950's that the true extent of the area's moa bone deposits began to be realised. The area's largest single deposit of bones was discovered in 1982 in a cave less than four kilometres from Waitomo Village.

The carbon dating of a small number of bone deposits from caves around Waitomo indicates ages ranging from 1075 to 25,800 years old.

Caves provide an ideal environment for the preservation of bones. Moa frequently fell into caves down tomo (vertical shafts) or their bodies were washed in by streams. For these reasons caves have long provided a rich source of moa and other bones.

From findings in archaeological sites along the coast immediately west of Waitomo, evidence indicates extensive moa hunting in the region. As with the South Island these hunting activities would have extended inland, leading us to believe that moa hunting would have taken place in Waitomo itself. This has been reinforced by the discovery of a shell necklace from the moa hunter culture period found in a cave shelter in Waitomo.

## QUESTIONS AND ANSWERS ABOUT MOA

### *Did moa nest in caves?*

Yes. Both large amounts of egg shell and other evidence of nesting have been found in caves and under limestone overhangs in a number of localities including Waitomo. These include actual moa nests in small caves on the east coast of the North Island.

### *Was the moa the largest bird in the world?*

No, it was superseded in height and weight by the Elephant Bird of Madagascar and the giant Mihirungs of Australia.

### *Were moa found only in the South Island?*

No, they ranged throughout both the main islands of New Zealand and Stewart Island, from high in the mountains to sea level.

### *What did moa eat?*

Contrary to popular belief moa did not eat grass. They mainly ate woody twigs with some leaves, fruit, seeds of most shrubs and trees.

### *What colour were moa eggs?*

Moa egg colour varied; olive, blue, dark green, and white fragments have been found.

### *How many species were there?*

Currently 11 species are widely recognized - reduced from the 28 species recognized by Dr Oliver in the 1950's.

### *How many species of moa were there in Waitomo?*

The remains of seven species of moa have been found in the caves of Waitomo. The remaining four species have been found only in the South Island. **Greater Moa:** *Dinornis giganteus*, *Dinornis novaezelandiae*,

*Dinornis struthoides*. **Lesser Moa:** *Anomalopteryx didiformis*, *Eurapteryx geranoides*, *Eurapteryx curtus*, *Pachyornis mappini*.

### ***How old are moa bones?***

The majority of moa bones found so far date between 1,000 and 5,000 years old with the oldest cave deposits being between 35,000 and 40,000 years old. Some fossil moa bones have been found dating back at least 2 million years although it is believed that the moa ancestors arrived in New Zealand approximately 65 million years ago.

### ***When did the last moa become extinct?***

This is still a widely debated question. Midden material indicates that moa were still being hunted and eaten in many areas as recently as 400-500 years ago. Moa of the genus *Anomalopteryx* probably existed in the Nelson region until less than 200 years ago and the small bush moa of the genus *Megalopteryx* surviving in south Westland until late last century.

(Ref: Notornis '74).

### ***What caused the moa to become extinct?***

Modern research has proven that habitat destruction and predation by humans were the major factors in the moa extinction. Contrary to popular theories of extinction due to climatic change and the belief that only one family of moa *Euryapteryx* were in existence when the first humans arrived in New Zealand over 1,000 years ago, it has now been proved that 10 of New Zealand's 11 species of moa were extensively hunted by early Polynesians.

### ***Where do you find moa bones?***

While moa bones have been found in a wide range of locations including river deposits, under the sea and in a range of archaeological sites, by far the greatest quantities come from cave, sand dunes and swamps.

## **SUGGESTIONS FOR FURTHER READING:**

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- 1982 *No Moa, Some Thoughts on the Life and Death of NZ's most Spectacular Bird*  
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