

Earliest Known Abalone Discovered

May 18, 2008 — A tiny abalone specimen 5.9 mm in length and approximately 78 million years old (putting it in the middle Campanian Stage of the Late Cretaceous) has been documented from rocks in the Garapito Creek area of Topanga Canyon, Los Angeles County by Lindsey T. Groves and John M. Alderson of the Natural History Museum of Los Angeles County in the latest issue of the molluscan journal *The Veliger*.



1: dorsal, 2: oblique, 3: lateral, 4: ventral.

Fossil abalone of the Late Cretaceous Epoch are extremely rare, previously known from two species: one from San Diego County (approximately 70 million years old) and another from Puerto Rico (approximately 67 million years old). This newly documented specimen is poorly preserved but may in fact help prove that abalones originated in Southern California.

As of the publication of this paper Groves could not find any evidence of older fossil abalones from any of the major Cretaceous deposits worldwide. (There are large Cretaceous deposits in western Canada, Brazil, Australia and Africa, for instance — but abalones haven't been found there.) The fact that none have been found elsewhere, and two have been found in Southern California is compelling evidence.

The NHM collections comprise over 35 million specimens and although Groves manages one of the largest collections of mollusks (Malacology) in the nation and the world he depends on the Invertebrate Paleontology collection for research purposes. Because a vast portion of the Invertebrate Paleontology collection from the Cretaceous onward consists of mollusks, it is closely tied in closely with the living mollusk collection. “In order to understand what creatures were doing millions of years ago, we have to know what they are doing today — their ecology, biogeography, feeding habits, and life strategies” he said.

Groves has been Malacology Collections Manager at NHM for 20 years. He's particularly interested in paleoecology, biostratigraphy, and paleobiogeography of fossil mollusks and regularly leads Museum fossil-hunting expeditions to Silverado Canyon, about an hour southeast of Los Angeles.

About the Museum

The Natural History Museum of Los Angeles County serves more than one million families and visitors annually, and is a national leader in research, exhibitions and education. The Museum is L.A.'s second oldest cultural institution, the first to open its doors to the public in 1913, and has amassed one of the world's most extensive and valuable collections of natural and cultural history – more than 35 million objects, some as old as 4.5 billion years. Its mission is to inspire wonder, discovery and responsibility for our natural and cultural worlds.