

Peru geologists strive to preserve whale cemetery

July 12 2012, by Roberto Cortijo

In arid southern Peru, geologists are fighting time and the elements to preserve a precious find: a vast whale cemetery dating back millions of years.

The fossilized remains of roughly 15 of the majestic marine mammals alive three to 20 million years ago are currently on view in the Ocucaje desert some 310 kilometers (190 miles) south of the capital Lima.

Once submerged but now situated some 30 kilometers from the shore, the area has been shaken by [volcanic eruptions](#), killing off all life forms, according to experts from the country's geology and mining institute Ingemmet who have been working for four years at the site, now threatened by erosion.

"The [strong winds](#) throughout the year in the area are the worst enemy of the fossils," Cesar Chacaltana, who heads the team, told AFP during a tour of the site, which spans 45 square kilometers (17 square miles).

Now, plans are underway to create a paleontological park that would include finds from this sandswept stretch, which Chacaltana says could still contain an even larger [treasure trove](#).

"There is probably a greater number of fossils in the sand but it takes high-tech equipment to locate and recover them," he said.

"The bodies were preserved by the low level of oxygen in the substrate,

which delayed decay caused by bacteria."

Excavation work so far has yielded some impressive results.

In February, experts located the remains of a minke whale that is believed to be 3.6 million years old.

Armed with brushes and chisels, and braving intense heat, they unearthed the animal's head -- spanning 1.8 meters -- that had fossilized on a rock.

"It is a species known only in Peru," Chacaltana said, estimating that the whale weighed about 500 kilograms (1,100 pounds) and measured six meters in length.

-- One of largest [marine predators](#) --

The specimen, protected so as not to damage it, is due to be transferred to the local municipality of Ocucaje, he added. Work would then continue on the rest of the remains.

Chacaltana recalled how in 2008 researchers found remains of a sperm whale (*Livyatan melvillei*) that were 12 million years old. The animal is believed to have been between 16 and 20 meters long.

"The sperm whale is a prehistoric animal considered to be one of the largest known marine predators that had about 70 teeth of 36 centimeters each and fed on minke whales coming into the bay to mate," he said.

The remains of the skull, jaw and teeth of the animal, which together weighed more than a ton, are on display at the natural history museum at the National University of San Marcos in Lima.

A decade ago, Chacaltana came across the jaw and three-meter skull of a giant shark, considered a mega predator, that lived off the Peruvian coast.

While locals are being urged to tread carefully while walking in the excavation area, plans to create a paleontological park are taking shape.

Ingemmet head Susana Vilca told AFP that the government agency is coordinating with Ocucaje Mayor Paul Albites to develop a draft proposal to be presented to Congress.

In addition, she said, four experts were working on a geological map spanning 370 kilometers of the Ocucaje desert.

It would pinpoint, among other things, the location of the fossils and areas where it is safe for the public to walk, according to Chacaltana.

In an effort to attract tourists, Albites meanwhile announced plans to convert his town of 5,000 people into an open-air museum.

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