



TO CATCH RAIN

The raingage for Mt. Waialeale must be big. This one holds 900 inches of rain without overflowing.

inches, and total precipitations in single really rainy years have reached as much as 600 inches. It is one of the world's wettest spots.

To keep an accurate official record of this extraordinary rainfall, a huge raingage, bigger than a barrel, has been set up on the mountaintop. It is stoutly made of copper, and it will take care of 900 inches of rain without overflowing.

The gage is read only once a year, because it is such a nuisance to get to the summit of Waialeale. Part of the way is a ceaseless struggle with dense, wet, matted trees and shrubs, and the rest of it lies across an open stretch of low vegetation, with endless rivulets trickling between grass hummocks. And everywhere there is thick, sticky, seemingly bottomless mud. Getting stuck in the mud as a peril of mountain-climbing sounds a bit funny—but those who have had the experience on Waialeale are emphatic in their declarations that there isn't a bit of fun in it.

Earlier raingages on Waialeale were smaller, necessitating at first monthly, then quarterly ascents. The mountaineering meteorologists were not sorry, therefore, when these developed defects, and the huge, once-a-year gage was built to replace them.

At one time an effort was made to get data on evaporation rates on the summit. But the sheltered copper evaporation pans stood month after month without losing any water at all, so the

scientists gave it up as a bad job. In reading the raingage, it is simply assumed that evaporation is zero—though actually it probably does occur to the extent of some unimportantly small fraction of an inch a month.

Mt. Waialeale achieves its wetness partly through the simple fact that it thrusts its more than 5,000 feet of altitude directly into the path of the moisture-laden subtropical trade winds. Even more than this, however, it acts as a moisture trap for winds that blow near its base. Together with the slightly higher Mt. Kawaikini about a mile to the south, it is the focus of a whole nest of deep canyons, up which the

winds swoop, bringing with them condensed moisture from lower levels. Thus the summit receives a double portion of rain.

The extreme wetness of Waialeale receives dramatic emphasis from the almost desert-like conditions that prevail at a sea-level locality only fourteen miles distant. This spot, blocked off from the moisture-bearing winds by the mountains themselves, has an annual rainfall of only about eleven inches—just about that of the drier parts of Arizona. Probably nowhere in the world is there such a sudden contrast between rain-forest and desert.

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PALEONTOLOGY

Find Well-Preserved Sloths In Cave Resembling Stable

DISCOVERY of exceptionally well preserved ground sloth remains in a cave located by an Indian near Pierces' Ferry, Grand Canyon, is spurring scientists on in their quest for additional proof that man lived 10,000 years ago in what now is the United States. Hope is felt that remains of prehistoric man will be found. First indication that man lived on this continent in ancient times was uncovered four or five years ago in Gypsum Cave, near Las Vegas, when scientists uncovered ashes and arrows in association with ground sloths.

An Indian, Willis Evans, exploring for archaeological sites along the Colorado River at the behest of Dr. M. R. Harrington, scientific adviser to the National Park Service, came upon the ground sloth cave and another containing remains of an old Indian culture.

In the ground sloth cave, eight miles from Pierces' Ferry on the Arizona side, were found two ground sloth skulls, some hide and hair of the ancient animals, dried internal parts, and dung. No internal parts were found in the Gypsum Cave excavation. CCC workers removed remains to Boulder City, 80 miles distant.

Excavation of the sloth cave, which extends irregularly 200 feet into the wall of the canyon, is expected to start at once under the direction of the Park Service. The cave is around 800 feet above water level and 4,000 feet from the brim of the canyon.

The second cave contains Indian relics

and is believed to hold traces of prehistoric animals. It lies three quarters of a mile farther up the canyon, and will be opened later for investigation. Experts anticipate that additional caves will be discovered.

When Mr. Evans spotted the first cave he instantly recognized its value to science in adding new links to the record of the continent at the close of the ice age. Dr. Chester Stock, professor of paleontology, California Institute of Technology, Pasadena, Calif., was requested by the Park Service to inspect the prehistoric remains.

Dr. Stock said:

"This discovery is easily as important as the Gypsum Cave which threw new light upon the past, especially in view of the fact that from the remains just uncovered can be obtained additional information about animals that existed at the end of the ice age and into recent times. It is a remarkable preservation from which we can get valuable information about animal forms and appearances."

Dr. Stock viewed the caves with enthusiasm because of the possibility of finding remains of ancient man. Eustace L. Furlong, curator in vertebrate paleontology, California Institute of Technology, accompanied Dr. Stock.

The interior of the ground sloth cave, on discovery, resembled a stable. Man can stand erect in the caves. Some time ago CCC workers excavated a cave near Pierces' Ferry of Indian relics.

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