

Huge New Geyser in Yellowstone

Geology

A new geyser of great magnitude, whose volume of water discharge is greater than any other known in Yellowstone National Park since Excelsior Geyser stopped playing in 1888, has broken out in the Fairy Creek section of the Lower Geyser Basin of this great region of thermal phenomena.

The new geyser has been investigated by Dr. Arthur L. Day, director of the Geophysical Laboratory of the Carnegie Institution of Washington, and Dr. Eugene T. Allen, who has been field representative of the geophysical department of the Carnegie Institution here for the past two years.

This huge geyser has a crater of roughly circular form, with diameters of 100 and 120 feet. It erupts twice in 24 hours, and each eruption lasts three hours or longer. The geyser

continues to spurt at intervals of from 15 to 20 seconds during its period of eruption, bursting forth from a quiet surface with a loud explosion and throwing a column of water to an average height of 60 to 75 feet, with occasional spurts of 100 feet in height, from a crater eight feet in depth.

The outlet of the geyser crater is four feet wide and during the period of eruption a stream of water eight inches deep flows through it at the speed of 120 feet per minute, giving this geyser by far the greatest water discharge of any in Yellowstone Park. The outlet stream does not receive water from any source other than the geyser. The eruption ceases without warning, and the final outburst seems just as violent as the first. The crater then drains and with the exception of a small fissure ten feet long and three feet wide, elliptical in shape,

and several boiling mud springs along the north edge, is entirely dry.

The outer edge of the crater shows a top layer of siliceous sinter about two feet through and under this a wide layer of black sand and hardened clay. The main orifice or fissure through which the principal action comes is lined with sinter.

The action of this geyser is so violent, its eruptions of such magnitude and its intervals of eruption so regular that it bids well to become one of the park's major attractions. It is the largest geyser to be discovered in modern times in the park.

The geyser is yet unnamed and but two parties of explorers have visited it since its discovery. Superintendent Horace M. Albright, Dr. Day and Dr. Allen have made a study of the new phenomenon.

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Dog-Day Cicadas

Entomology

"Creeeeee-eee-eee-eee!" sings the dog-day cicada in the tall poplar. And "Crrreee-eee-eee-eee!" answers another from across the simmering fields.

"Six weeks till frost," prophesies the weather-wise oldest inhabitant; "The locusts are singing."

It may be six weeks, or more, or less, until frost. But a locust the creature is not. A locust is a kind of grasshopper, and the cicada is a true bug, that is, an insect with a long piercing beak instead of chewing jaws.

The dog-day cicada is a relatively long-lived insect. He exists as a grub or larva in the ground for two or three years, sucking the juices from the roots of plants. When he reaches maturity he tunnels to the surface of the ground, and some day, when there is no threat of rain in the air, he comes out, crawls up the trunk of a tree, and emerges from his shell as a fully formed winged insect.

The cover picture shows on a large scale one of these empty shells, where its former tenant left it clinging to the rough bark of a tree. Note especially the little pouch along the side, in which the insect's wing was packed away, tightly folded up. The really crucial affair in the cicada's emergence is the correct extrication, unfolding and drying of its wings.

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