

provement. It was feared earlier in the season that the mild winter, without the average amount of snow, would result in bad forage conditions for the park animals. Heavy precipitation during the early part of June, however, resulted, Superintendent Toll states, in better plant growth, with the result that the volume and density of the vegetation

on the summer ranges apparently is of sufficient amount to care for the animals on the summer range. Improvement of the lower slopes and valleys of the winter range also has been noted, but the higher slopes and ridges of the cold-weather feeding grounds still are in a critically denuded state and are causing park officials some concern.

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ZOOLOGY

Yellowstone Bears Pay No Attention to Tear Gas

TEAR GAS, the same chemical that has been used effectively by police and soldiers to quell mobs, is not a weapon to be used against bears.

Rangers Frank W. Childs and Robert H. "Gus" Wylie of Yellowstone Park attacked three black bears with tear gas guns, but the animals showed only startled surprise at the report of the powder explosion that propelled the tear gas at them. They refused to weep and went on with their eating.

The Yellowstone Park officials hoped that tear gas might provide a method of discouraging over-friendly bears and driving them away from camp sites without permanent injury to the bears. While bears are one of Yellowstone's great attractions for tourists, they frequently raid automobiles and tents in which food, particularly hams and bacon, are stored. Food must be hung high in the air between two trees to keep it safe from bears.



BEARS IGNORE TEAR GAS ATTACK

Tear gas that makes a strong man weep copiously has no effect on Yellowstone Park bears. Here Ranger Robert H. "Gus" Wylie is attempting to gas a black bear while Ranger Frank W. Childs snapped the camera to record the effect. The bear simply flinched at the report of the tear gas gun and then went on eating meat scraps. This bruin and two others experimentally attacked were unaffected by the same kind of tear gas that has been used to disperse mobs. Yellowstone Park officials are still looking for some harmless way of scaring off bears that rob auto tourists of food left in their cars.

Park Rangers Wylie and Childs, thought that they had found the solution to the problem in the use of tear gas. In fact, so sure were they that tear gas would stop a bear that they set out to try their experiments on a grizzly bear. Fortunately, the grizzly bears would not let the two rangers approach near enough to use the tear gas. Finally three black bears, ranging in age from two to five years, were selected as subjects for the experiment.

The first bear was fired upon at a distance of 25 feet. The ten-inch tear gas gun almost jumped from Ranger Wylie's hand. The gas sprayed the head and one side of the bear. The bear, startled by the loud report, loped slowly away. Bear number two received the charge full in the face at a distance of ten feet. At the detonation of the twelve-gauge shell the bear jumped, ran a short distance, and then quite unconcernedly returned to the meat scraps he had been eating.

A Third Trial

Bear number three was a five-year-old mother with two cubs. Some meat scraps were tossed to the ground. Five feet from the meat scraps stood Ranger Wylie with the tear gas gun, while Ranger Childs waited in readiness to photograph the results. The bear sniffed at the meat scraps and looked up inquiringly at Ranger Wylie. Boom went the tear gas gun and click went the camera. But the bear did not go; she simply flinched, glanced back at her cubs, and then settled down to enjoy the meat scraps.

"Boy," commented Ranger Wylie, "These bears can certainly take it. And to think that we were going to try it on a grizzly!"

A Puzzle

Just why the bears are not affected by the tear gas is a puzzle. Bears have very small eyes and their eyesight is so bad that they do not rely on it to the same extent as other animals. Their sense of smell is very keen, however.

The park officials are still searching for an effective method of bear control that will not harm the bears.

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The food gathering activities of oysters and other shellfish, working in mass, may alter the physical and chemical properties of the sea around them to a considerable degree, an oceanographic study has shown.