

Yosemite bears aren't eating as much human food as in decades past, research shows

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Black bears in Yosemite National Park aren't snacking as much on human food as they did decades ago, according to new research that traces changes in the diet of Yosemite bears over the last century.

Researchers analyzed samples of bear bones from museums and bear hair collected from the field to determine the ratio of human-to-wild-food that Yosemite bears consumed as far back as 1915.

Not surprisingly, they found that the proportion of human food rose significantly after the park started feeding bears in 1923 to keep the animals away from developed areas. Lighted feeding platforms were even used to entertain park visitors until 1940.

The bears also took advantage of a park fish hatchery, dipping into hatchery tanks for helpings of non-native trout.

The hatchery closed in 1956, and the last feeding station was shut down in 1971. But bears didn't lose their appetite for human food. They raided campgrounds and concessions. From 1975 to 1985, human food made up about a third of the diet of pilfering bears, according to the study, published in the March issue of *Frontiers in Ecology and the Environment*.

It wasn't until the park received funding to install bear-proof food lockers and to patrol campgrounds for problem bears that the proportion of human food dropped to 13 percent of their diets - what it was from

1915-19.

"What we found was that the diets of bears changed dramatically after 1999, when the park got funding to implement a proactive management strategy to keep human food off the landscape," said Jack Hopkins, lead author of the paper and a research fellow at the University of California, Santa Cruz who dealt with problem bears when he worked as a wildlife biologist in Yosemite.

Hopkins teamed with coauthor Paul Koch, a UC Santa Cruz professor of earth sciences, to analyze carbon and nitrogen stable isotopes derived from bone and hair samples from park bears. The samples were obtained from museum collections and through field work.

The researchers compared samples from bears that ate only wild food, from bears known to forage for human food and from human hair, including some from the Smithsonian Institution collected in 1940.

Thanks in part to the meat and corn-based products that people eat, isotope ratios differ between wild bear food and human food, creating a record of the [bears'](#) culinary habits.

Hopkins "searched far and wide to get the collection of samples we analyzed, and that collection made the study powerful enough to answer the question of how management practices affect bear diets," Koch said.

The research was funded through Yosemite's bear management program.

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