

WILDLIFE EXPOSURE TO HUMAN FOOD

A concern in many National Park units is the feeding of wildlife, and in Yosemite National Park human-bear interactions have been of particular concern. The Black Bear (*Ursus americanus*) is common in Yosemite and human interactions with them are frequent. In many cases, these interactions have not always been positive, as visitors will often leave food available to bears by leaving it unattended and there have been numerous documented instances of bears breaking into visitors' vehicles or rummaging through campsites to obtain food. A bear's ability to successfully survive in the wild is diminished when it becomes conditioned to human food, and bear "break-ins" to visitors' vehicles and campsites can cause significant damage to personal property as well as negatively affect the overall quality of visitor experience (Figure 1).

Introduction

In 2010, data to determine compliance rates for this indicator were collected between May 1st and October 31st at ten locations in Yosemite Valley, including five campgrounds and five parking lots. Among these ten locations, a total of 598 inspections were conducted, involving 72,474 vehicles and 51,326 campsites. Campground inspections were conducted after 10 p.m., when most visitors had finished eating dinner and food had been put away. Because food stored inside vehicles during daylight hours is legal, compliance checks on vehicles could only be performed after dark, so parking lot inspections were conducted throughout the night. The proposed standard for this draft indicator is that visitors will be in compliance no less than 95% of time, and results from the 2010 field season suggest that food storage compliance rates at six out of the ten inspection locations either met, or exceeded, the proposed standard.

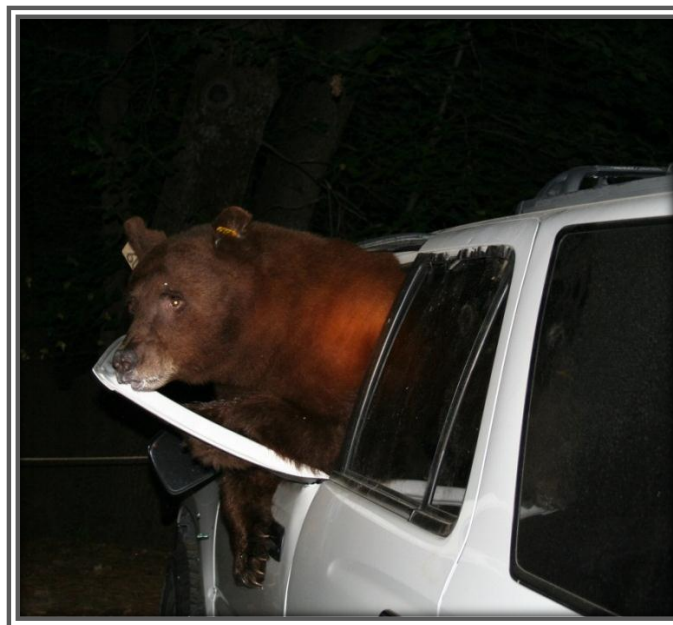


Figure 1 A Vehicle Broken Into by a Black Bear in Search of Food.

Findings and Highlights

Table 1 Wildlife Exposure to Human Food: Parameters, Plan/Application, Standard & Observed Condition

Parameter	Plan/Application	Standard	Observed Condition
Vehicle Compliance	In development as a potential indicator for the Merced River corridor	95% or greater compliance with food storage regulations for vehicles	<p>Ahwahnee Parking Lot: Vehicles inspected: 5076; Compliance Rate: 94%</p> <p>Camp 4 Parking Lot: Vehicles inspected: 17,780; Compliance Rate: 95%</p> <p>Curry Parking Lots: Vehicles inspected: 14,726; Compliance Rate: 95%</p> <p>Wilderness Lot: Vehicles inspected: 3690; Compliance Rate: 94%</p> <p>Yosemite Lodge Parking: Vehicles inspected: 31,202; Compliance Rate: 96%</p>
Campground Compliance	In development as a potential indicator for the Merced River corridor	95% or greater compliance with food storage regulations for campgrounds	<p>Camp 4 Campground: Campsites inspected: 9,870; Compliance Rate: 94%</p> <p>Housekeeping Camp: Campsites inspected: 15,704; Compliance Rate: 95%</p> <p>Lower Pines Campground: Campsites inspected: 5,424; Compliance Rate: 94%</p> <p>North Pines Campground: Campsites inspected: 4,844; Compliance Rate: 95%</p> <p>Upper Pines Campground: Campsites inspected: 15,484; Compliance Rate: 97%</p>

Conclusion & Future Implications

Bears can become conditioned to human food and are intelligent enough to pursue a food source to the detriment of both the animal and the visitor. Bears that are food conditioned have been known to obtain food or cause incidents even when the visitor is within compliance, i.e. situations in which bears bluff charge and chase people away from food, take food within arm’s reach, or break into vehicles containing no food. It is also not always possible to determine if visitors are actually in compliance as researchers are not able to look inside tents, backpacks, or vehicle trunks etc. for food which has been

improperly stored. Although wildlife staff found these research results informative from a management perspective, compliance rates, while improved in 2010, did not necessarily coincide with a reduction in the total number of bear incidents at all sites.

Known factors that have the potential to improve overall visitor compliance rates for this indicator include better educational signage and the installation of larger and easier to latch food lockers. The current bear lockers in Yosemite Valley can be difficult to close correctly and are often found open or improperly latched, allowing bears to obtain human food. Well researched and clearly stated food storage messaging on attractive, well placed, and engaging signage would be helpful for increasing compliance in both campgrounds and parking lots.

Results for 2010 have identified an increase in compliance, as compared to previous years, in all but one of the study locations. It is possible that this increase in compliance may be attributed to: improved educational messaging efforts, the retention of employees experienced in mitigating violations and educating visitors, and/or the employment of camp hosts assigned to patrol problem areas for violations in Camp 4 and Housekeeping Camp. One area for consideration in future research efforts is to attempt to identify and evaluate potential sources of mitigation for wildlife exposure to human food.