

Advisory to Appalachian Trail Clubs on Animal-Deterrent Food Storage Systems

Appalachian Trail Conservancy Stewardship Council, May 13, 2016

Trail visitors must be responsible for preventing animals from accessing their food during overnight stays. Absent an enforced requirement for the use of bear canisters (which, at present are only required at one overnight site on the Trail), experience indicates that successful storage is most successful when overnight sites are equipped with mechanisms or devices that assist visitors in this effort.

When animals find a location with easy, low-risk food resources, they will return to the site repeatedly. This disrupts their natural patterns, can cause populations to increase beyond what the normal environment supports, and increases their contact with humans. As responsible stewards, clubs should seek to maintain the trail environment in its natural state as much as possible. This advisory will serve as an overview of current food storage techniques suitable for overnight sites on the Appalachian Trail. Trail clubs considering changes in managing overnight sites and/or installing devices at any sites must consult with ATC and the relevant land managing agencies. Clubs should also be aware that land-managing partners might have their own procedures or orders in place, particularly in special areas such as designated Wilderness or Natural Areas.

Black bears are typically the animal that most food storage methods are intended to resist, but smaller mammals can be destructive as well, and—in rare cases—can spread diseases to humans through feces and urine.

The ideal food storage system would have the following attributes:

- Effective in preventing access by animals to unattended human food supplies
- Simple to operate
- Low physical, visual and aural impacts to the local environment
- Durable in the outdoor environment
- Low initial installation costs in backcountry settings
- Few maintenance requirements

Of course, no one system meets all of these criteria. Clubs, in consultation with land-managers, should assess available options, and choose those that best suit their resources, partner regulations and the needs of each overnight site. To assist in that effort, the following chart outlines advantages and disadvantages of five systems currently in use on the A.T. Clubs must work closely with all partners before installing any equipment.

Visitor education is the key component to all of the methods listed. Clubs should communicate to Trail visitors through as many channels as possible: signage, guidebooks, social media, ridgerunners, etc., regarding:

- What animals exist in the Trail environment
- Why it is important to keep animals away from human food
- Requirements (if any) of the land-managing agency for backcountry food storage
- Equipment and techniques available to visitors at overnight sites

Bear Deterrent Food Storage Methods for the Backcountry

Method	Advantages	Disadvantages	Notes
<p>Rope hangs</p>	<ul style="list-style-type: none"> • No manager-provided facilities are needed. • Lightweight 	<ul style="list-style-type: none"> • Campers must have knowledge, skills, and equipment to effectively use these. • Requires both time to do them correctly and the availability of appropriately sized and shaped trees (may be unavailable). • This method can lead to rope damage to trees and groundcover trampling. 	<p>Habituated bears in several locations have learned how to access campers' hung food (chewing through lines, pulling from above, sows sending cubs up tree or on shoulders).</p> <p>Considered only a delaying technique by some land managers.</p>
<p>Cable Systemss</p>	<ul style="list-style-type: none"> • Eliminates extensive tree damage and trampling associated with campers putting up their own bear bags. • If present, a much larger proportion of campers will hang their food, and do so far more successfully than if they set up their own hangs. 	<ul style="list-style-type: none"> • Can be expensive to install and maintain. • May break over time (the more complex they are the more frequently they break). • Trampling damage/ erosion under the cable system can be extensive. • Cables/lines can get tangled. • Difficult to access components for maintenance and repair. 	<p>May delay bears, but rodents and raccoons often access food with these systems.</p>
<p>Metal Pole w/Arms</p>	<ul style="list-style-type: none"> • Somewhat effective. • Requires little subsequent maintenance. • Relatively easy for campers to use. • Limits trampling impact to confined area. 	<ul style="list-style-type: none"> • Moderate cost and installation effort. • Habituated bears and other wildlife may learn to climb them. • Requires upper body strength. • May be difficult for campers to retrieve food. • Noise disturbance due to clanging poles and chains. 	<p>Considered a delaying tactic by some land managers.</p> <p>“Unnatural” appearance in backcountry setting.</p>

Method	Advantages	Disadvantages	Notes
Steel Boxes	<ul style="list-style-type: none"> • Highly effective from bears, rodents, and other wildlife. • Easy to use. • Concentrates trampling impact to confined area. • Low maintenance. 	<ul style="list-style-type: none"> • Higher up-front cost. • Heavy, bulky to transport. • Campers may leave trash and unwanted food in them. • May require regular trash monitoring by managers. • Capacity is finite. 	<ul style="list-style-type: none"> • Highly effective method if used properly. • Informational signs may dissuade trash or discarded food from being left in them. • “Unnatural” appearance in backcountry setting.
Bear Canister Approved by either NPS or USFS	<ul style="list-style-type: none"> • Easy, quick, convenient. • Can be used and accessed in any location. • Effective for all animals. • Multi-use (seat) • No cost to managers if visitors provide their own. 	<ul style="list-style-type: none"> • Expensive and bulky/heavier to carry. • May be difficult to fit all food and smellables into them, depending on number of days’ food. 	<ul style="list-style-type: none"> • Highly effective method if used properly. • Requires extensive education and outreach effort by managers. • Visitor compliance varies. • Compliance increases if required.