



## Bear Issues and Management

### Introduction

Populations of eastern black bear (*Ursus americanus*) were probably both wide ranging and abundant in pre-colonial Virginia including the area that is now Shenandoah National Park. Rapidly expanding human populations combined with over exploitation and resulting habitat changes severely impacted bear populations in eastern and central Virginia. By the early 1900s, bear populations were nearly eliminated from lands that are now within the park.

The park bear population expanded from an estimated population of 10 in 1944 to one bear per square mile (approximately 300 bears) by 1990. Since the 1960s, much of the park's hardwood forest has reached mast producing age. Intensive agricultural practices on lands adjacent to the park have increased the availability of high starch foods preferred by bears including apples, peaches, grapes, corn and honey. The mosaic of agricultural lands, woodlots and tree-lined streams surrounding the park created nearly ideal conditions for the bear population to expand and disperse.

Virginia Department of Game and Inland Fisheries staff biologists currently acknowledge a conservative estimate of 5000 bears statewide, approximately half of which are reputed to occur within the eight county area that includes the park. According to bears harvest statistics provided by Virginia Department of Game and Inland Fisheries, from 1994 to 2004 over 4,000 bear were legally harvested in the eight counties surrounding the park. From 2005 to 2008, an additional 1,800 have been harvested. During the 1990s, state biologists trapped 618 nuisance bears within the eight county area and relocated them to distant release sites throughout western and southwestern Virginia.



### Management Issues

There are a broad range of interests and issues associated with the park's bear population including but not limited to increased hunting opportunities on adjacent lands, market driven illegal pressure, increased opportunities to observe bears in the wild, and damage complaints. Bear related damage is quite diverse both within and adjacent to the park. Damage within the park includes auto accidents and minor property damage associated with the attraction to human foods in park campgrounds and picnic areas. Females with cubs occasionally bluff charge or otherwise intimidate park visitors. Some individual bears become habituated to the presence of people and refuse to leave the vicinity of occupied campsites (both frontcountry and backcountry).



*Check the teeth of a captured bear young bear.*

### Current Procedures

The principal objectives of bear management within the park include:

- To maintain the natural integrity, distribution and behavior of the bear population.
- To minimize adverse bear/human interactions.
- To provide opportunities for visitors to view bears in natural, wild settings.

These objectives are implemented in a variety of ways including the control of unnatural food sources within the park, education and enforcement of food storage and wildlife feeding regulations, aversive conditioning of human habituated bears, and the relocation of nuisance bears. A Bear Management Plan or Guideline is currently undergoing review and revision.



## Bear Issues and Management (continued...)

### Accomplishments

- 35 food storage lockers have been installed at the walk-in campsites in Big Meadows Campground, an area that has repeatedly been a source of bear/human conflict.
- Food storage or “bear poles” have been installed in the vicinity of the Byrd Nest shelters and around PATC huts in an attempt to reduce bear/human conflicts around high use campsites along the Appalachian Trail.
- Bear resistant dumpsters have been installed park wide.
- Within the past nine years, a total of 45 bears, including six sow/cub family groups have required capture and relocation responses within the park.
- Park visitor education in regards to bear management within the park includes articles in recent editions of the “Overlook”, displays at park kiosks, information posted within campgrounds and through Interpretive Ranger Programs.
- Aversive conditioning program initiated in spring 2008.

### References

- Demarest, David and Cody Murphy. June, 2008. Wildlife Aversive Conditioning and Hazing in Shenandoah National Park. National Park Service, Shenandoah National Park, Virginia.
- Garner, N. 1986. Seasonal movements, habitat selection, and food habits of black bears (*Ursus americanus*) in Shenandoah National Park, Virginia. Thesis, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.
- Kasbohm, J.W. 1994. Response of black bears to gypsy moth infestation in Shenandoah National Park, Virginia. Dissertation, Virginia Polytechnic Institute and State University, Blacksburg, Virginia.



*Big Meadows campground food storage lockers.*