

U.S. Fish & Wildlife Service

Canaan Valley *National Wildlife Refuge*



Tracking an enormous black bear one morning in the mid 1700s, George Casey Harness came to a spot, "on the western slope of the Alleghenies which overlooked a wide, well-watered, wooded and grassy valley. The breathtaking beauty of the wild valley so impressed young Harness that he involuntarily cried out, 'Behold! The Land of Canaan!'" This story is but one of the ways that the valley may have gotten its name.*

**Quoted from Jack Preble's book *Land of Canaan*, (1960, McClain Printing Company, p. 1)*

Balsam fir in fog
Ken Sturm/USFWS

Conserving the Nature of the Mountains

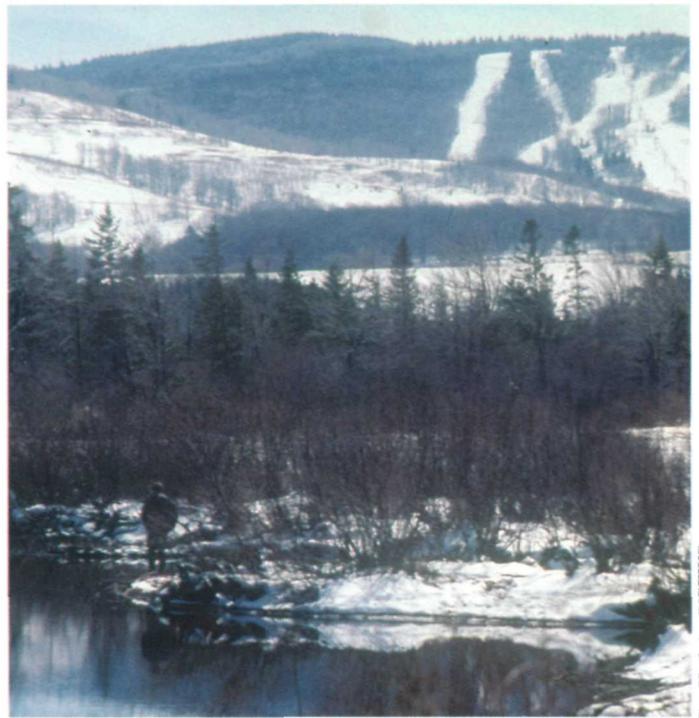
Welcome to Canaan Valley National Wildlife Refuge, the nation's 500th! The refuge works to preserve the unique wetlands and uplands of this high elevation, moist valley. You may enjoy the refuge by participating in wildlife-dependent recreation, including wildlife observation and photography, hunting, fishing, environmental education and interpretive programs.

The combination of wet soils, forests, shrub lands and open ground throughout the valley provides a diversity of wildlife habitat. In these habitats, animals, such as deer, raccoon, geese and squirrel are easy to see. Others, such as mink, bobcat and barred owls stay hidden most of the time. Beavers use trees to build dams, altering water levels to suit their needs. Woodcock treat us to their breeding display in spring. Elusive turkey and ruffed grouse provide a challenge for hunters. Along with native brook trout, you will also find other species of trout and bass in the river.



Beaver dam

On August 11, 1994, with the purchase of 86 acres, the refuge was established. It grew slowly at first. Then, with the purchase of about 12,000 acres in 2002, the refuge grew to 15,245 acres in size. There are 25,459 acres within the refuge acquisition boundary.



South Canaan Valley in the snow

History

During the last ice age 10,000-18,000 years ago, as the glaciers moved southward, northern species of plants and animals did also. The glaciers did not reach this area, and the northern plants and animals found refuge here. After the ice age, as the climate warmed, many northern plants and animals found new places to live high in the mountains where they could survive far south of what is now their normal range. Canaan Valley, the largest, high-elevation valley east of the Mississippi, is just such a place.

*Hermit thrush
nest on Cabin
Mt. XC ski trail*



Ken Sturm/USFWS

When early European explorers came to the area, game, fish and edible plants were plentiful in Canaan (pronounced Kah-nane') Valley. "Carpeted with delicious grasses and canopied with massive trees, cold streams teeming with speckled trout and enough wild game in the form of panthers, bears, elk, deer, otter and raccoon to last a man a lifetime



Chris Clower/USFWS

Valley view

of sport and subsistence, it was truly a paradise for man or beast.”* But the explorers also had a difficult time cutting their way through the dense tangled thickets of spruce and rhododendron, “where one could be hopelessly lost within shouting distance of his own camp.”†

*(Preble, 1960, p. 1-2.)

†(Preble, 1960, p. 2)

Dragonfly



Jim Hudgins/USFWS

In the late 1800s and early 1900s, while railroads delivered products to market, the area’s timber industry boomed. Forests of spruce, birch, cherry, beech and other trees were harvested, leaving branches and tree tops (slash) on the ground.

Without the shade, the soils, rich with decaying plants and slash began to dry. Fires began, ignited by lightning, people or sparks from trains. In some uplands, even the decaying plants burned, leaving inorganic soils exposed to the forces of erosion.

The logging and fires opened up what had been an impenetrable web. With the soils burned away, forests were slow to regenerate. The drier open areas grew into grasslands. Farming and grazing grew in importance. Today, the rugged and beautiful valley holds various wetlands, forests and grasslands.

Wetlands

There are relatively few places in West Virginia where ducks call, herons fly, and shorebirds probe the earth for food. Canaan Valley is such a place. Mallards, black ducks and wood ducks nest in the marshes. Solitary sandpipers and spotted sandpipers are found wherever a small pocket of wetland exists.

Jim Hudgins/USFWS



Sundew

Timid herons and snipe squawk in alarm and fly when encountered. Frogs and salamanders mate in the vernal pools. These are among the many animals you may find in Canaan Valley’s wetlands.

A patchwork of 23 wetland types, including bogs, shrub swamps and wet meadows, carpet the valley floor. At about 9,500 acres, this is the largest wetland complex in the state of West Virginia, and is a regionally significant wetland complex within the southern Appalachians. Currently, 5,370 acres of these wetlands are part of the refuge.

The ecological functions of wetlands provide valuable services to people. Wetlands absorb water and slow it down during heavy storms, reducing downstream flooding. This water retention helped reduce flooding just downstream of Canaan Valley’s wetlands in Davis in 1985. During times of drought, wetlands slowly release water. Along rivers, they buffer the shoreline, reducing the erosive effects of the water. They filter sediment, trash and pollutants. Without wetlands, we would need more water treatment plants, flood control projects, bank stabilization projects, and relief from natural disasters - all expensive propositions.

Aerial wetland



Dr: Erd Micheal



White-tail deer

Forests

Forests of beech, cherry, birch and maple cover the slopes of the mountains and add color to the fall. Scattered stands of spruce, balsam fir and hemlock remind us of the boreal forest that once dominated the valley. Squirrels, ruffed grouse, turkey and bear make their homes in these woodlands. Hermit thrush, ovenbirds and woodland warblers also find their place here. The world's largest diversity of salamanders find their niches in these and other southern Appalachian woodlands.



West Virginia flying squirrel

Canaan Valley's forests harbor threatened and endangered species. The endangered West Virginia northern flying squirrel and the threatened Cheat Mountain salamander are both found on the mountains, in areas with spruce forest cover.

Cheat Mountain salamander



Grasslands

Grasslands are important for the wildlife that they hold, particularly grassland birds. Savannah, field and grasshopper sparrows, bobolink and meadowlark are a few of the species using the refuge's grassland management areas. Grassland habitat is in decline nationwide, and in the east, along their migratory path. This has led to a decline in grassland bird populations. The U.S. Fish and Wildlife Service is obligated by the Migratory Bird Treaty Act to conserve these birds. Thus, at this refuge, and throughout the northeastern United States, the Service studies how to offer these birds high quality habitat.

Grasslands are also important during the winter months. They provide hunting areas for rough-legged hawks and migrating northern harriers. The short vegetation allows raptors access to the small mammals who also call grasslands their home.

Field at morning light



A Refuge for People Too!

We encourage wildlife-dependent forms of recreation. The refuge is open for nature observation, photography, hunting, fishing, environmental education and interpretive programs.

Parking and trail maps are available at all trail heads. You may use the trails for wildlife observation and photography. Please stay on the trails to minimize the disturbance to wildlife and plants.

The refuge has library resources for educators about wildlife and nature. Field study equipment is also available for educators. Educators may be classroom teachers or youth group (scout, etc.) leaders.

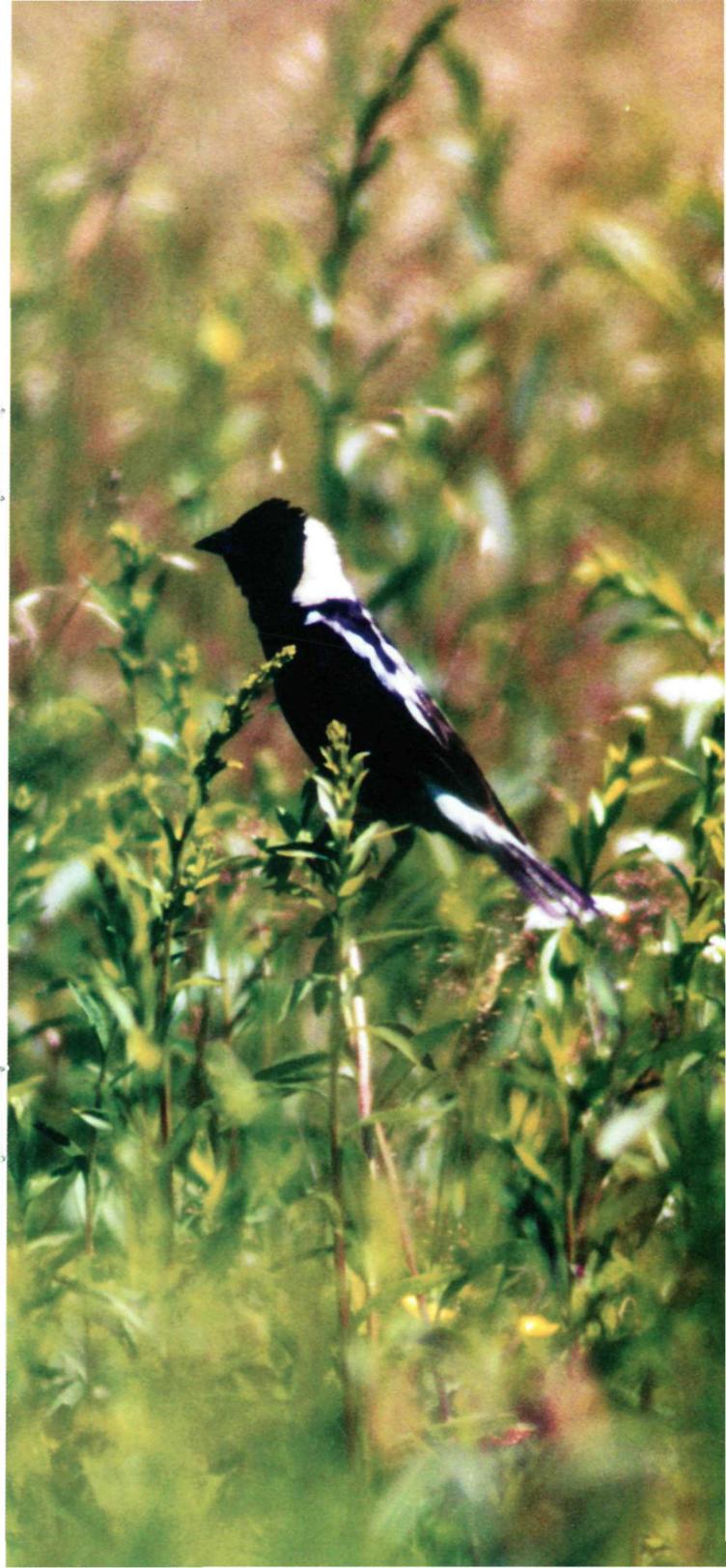
With the help of The Friends of the 500th, the refuge offers a regular schedule of programs and tours. Schedules are available at the visitor's center. Requests for special programs will be honored when possible, dependent on staff/volunteer availability.

The Friends of the 500th is a non-profit citizen's group that strengthens the refuge's educational and biological programs. The Friends invite visitors to join in supporting the important work of the refuge.



Cicada emerging

Winter tour



Want to Volunteer?

Volunteer opportunities are growing. Qualified volunteers are needed to lead refuge programs, assist with maintenance projects, staff the visitor center, help with special work days or with special events. There are also a limited number of opportunities for qualified volunteers to help with biological work.

Your Cooperation is Appreciated ...

The refuge is open from one hour before sunrise to one hour after sunset.

Permitted:

- Walking, cross-country skiing, and snowshoeing are allowed on designated routes. Please stay on these routes to minimize disturbance to wildlife.
- Horseback riding and bicycling to access wildlife-dependent recreation is allowed only on designated routes.
- Hunting is permitted in accordance with state and refuge regulations. Obtain a refuge hunt brochure for details. A refuge permit is required.
- Firearms are permitted only during refuge hunting seasons and must be unloaded and cased while in a vehicle.
- Dogs must be on a leash, attended and are restricted to designated routes except when used for hunting during refuge hunting seasons that allow the use of dogs.
- Fishing is subject to state regulations. Walking access is available from designated routes and parking areas.
- Please help keep the refuge clean. Littering is prohibited. Please take your trash with you.



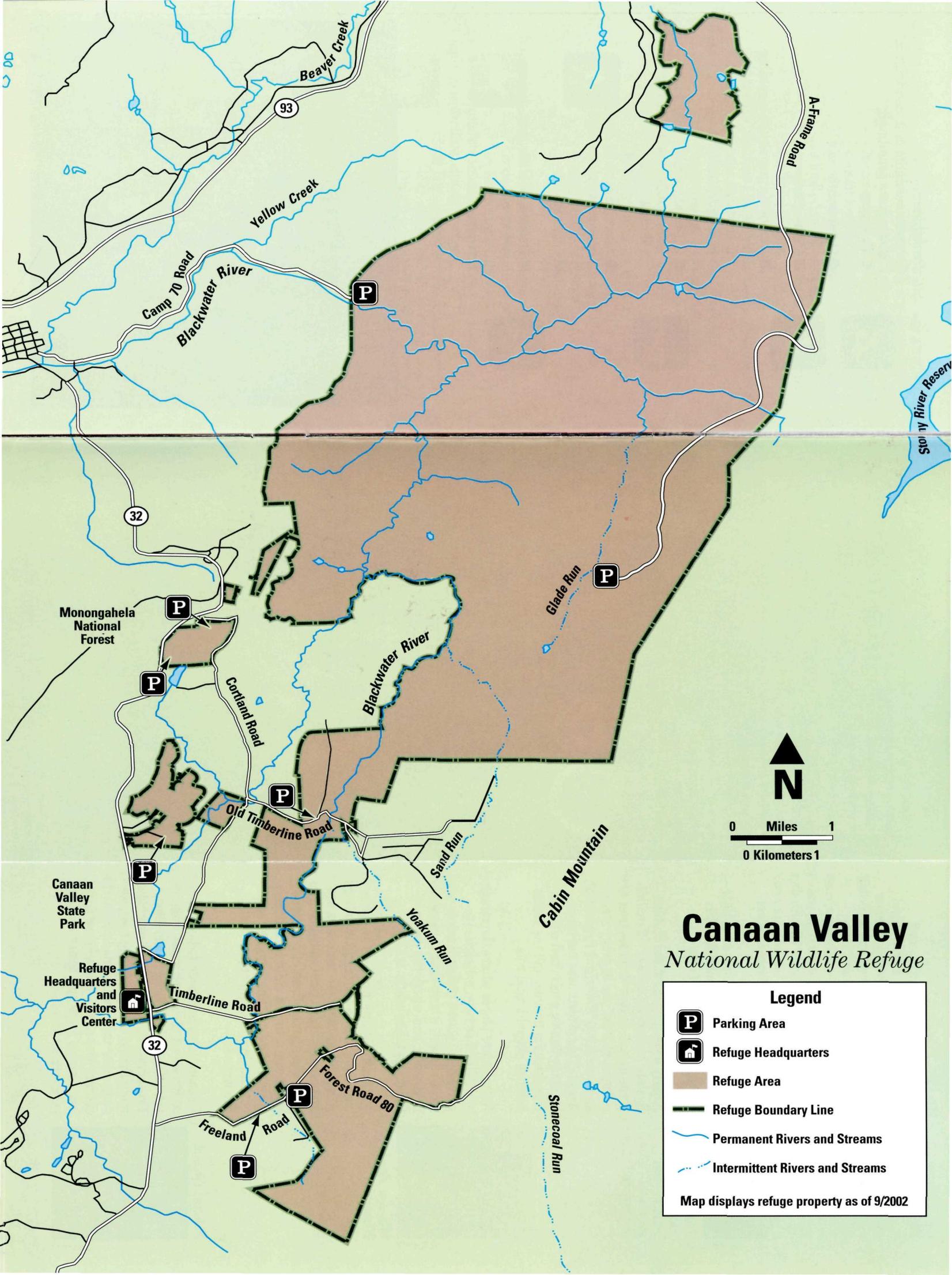
Prohibited:

To protect wildlife and visitors, the following are prohibited:

- Camping
- Open fires
- Cutting firewood
- Removing any object including plants and animals, except in accordance with hunting and fishing regulations.
- Off-road vehicles including snowmobiles and all terrain vehicles
- Abandoning wild or domestic animals on the refuge
- Jogging
- Driving on other than designated routes of travel
- No permanent structures such as tree stands, stairways or rope swings.

Tour on Freeland tract





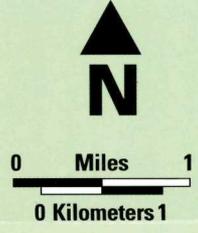
Canaan Valley

National Wildlife Refuge

Legend

- Parking Area
- Refuge Headquarters
- Refuge Area
- Refuge Boundary Line
- Permanent Rivers and Streams
- Intermittent Rivers and Streams

Map displays refuge property as of 9/2002



Our National Wildlife Refuges

USFWS



“The past gives roots to our vision—our promises—for the future.”

USFWS



Warden Paul Kroegel

Pelican Island

USFWS



In 1903, President Theodore Roosevelt ordered that a small shell-and-mangrove covered island in Florida’s Indian River be forever protected as a “preserve and breeding grounds for native birds.” Paul Kroegel, a sometime boat builder, cook and orange grower, was hired to watch over this 3-acre sanctuary. His mission was clear: *protect the island’s pelicans from poachers and plume hunters.*

With this simple promise of wildlife protection, the **National Wildlife Refuge System** was born.

Nearly a century later, the Refuge System has grown to over 82 million acres in size. It now includes over 500 refuges, at least one in every state, and over 3,000 Waterfowl Production Areas. This growth was nurtured by many hands; concerned citizens, conservation groups, and the states have all played a vital role.

Refuges are places where the music of wildlife has been rehearsed to perfection, where nature’s colors are most vibrant, where time is measured in seasons, and where the dance of the crane takes center stage.

National Wildlife Refuges are gifts to ourselves and to generations unborn ... simple gifts whose treasures are unwrapped every time someone lifts binoculars to the flash of feathered color, every time a child overturns a rock, and every time a hunter sets out the decoys or an angler casts the waters.

Canaan Valley’s mission today is much as President Roosevelt’s was when he established the Pelican Island Bird Preservation. While the job now takes more than one man and one boat, we remember the promise made when the century was new—*preserve wildlife and habitat for people today, and for generations to come.*

U.S. Fish & Wildlife Service

Canaan Valley
National Wildlife Refuge
HC 70, Box 200
Davis, WV 26260
(304) 866-3858
E-mail: fw5rw_cvnwr@fws.gov

Canaan Valley

National Wildlife Refuge

Federal Relay Service
for the deaf and hard-of-hearing
1 800/877 8339

U.S. Fish & Wildlife Service
1 800/344 WILD
<http://www.fws.gov>

September 2002



Common yellowthroat
Ken Sturm/USFWS