



# Trail Guide TO DINGMANS FALLS RAVINE

## The Delaware River Watershed

Dingmans Creek flows into the Delaware River and is part of its watershed. The Delaware River is one of the few free-flowing rivers in the eastern United States, and

provides 10% of the nation's population with drinking water. Since 1978, more than 37 miles of the river have been protected as a *Wild and Scenic River*.

## Dingmans Ravine and Silverthread Falls

Glaciers covered this area 11,000 years ago. When they began to melt, they gave the waterfalls and streams extra carving power.

The abrasive action of particles carried by flowing water for thousands of years has helped to carve the waterfalls of the ravine.

Silverthread Falls appears to have been chiseled by hand, but the forces of nature are the only sculptors here. Shale, the sedimentary rock beneath the falls, splits easily both vertically and horizontally. The shale has split at joint fractures, and falling water has flowed through the weak cracks to help create this 80-foot waterfall.

## Eastern Hemlock



The large evergreen trees of the ravine are Eastern hemlocks (*Tsuga canadensis*), the state tree of Pennsylvania. Thriving in the damp, cool and shady micro-climate of the ravine, hemlocks have a shallow root system with which they cling to the steep sides of the ravine and to its rocky floor.

The shallow roots, though, leave them vulnerable to fire, drought, erosion, wind, and heavy snows, as well as to trampling by humans. ***Please stay on the boardwalk trail!***

In addition, an insect from Asia, the *hemlock woolly adelgid*, is threatening Eastern hemlock trees in North America. Infestation greatly weakens and often kills hemlocks. Adelgids are widespread from Virginia to Massachusetts: in some areas, entire hemlock stands have been lost. Resource specialists are monitoring the presence of hemlock woolly adelgid in the recreation area, but the future of Eastern hemlocks in Delaware Water Gap National Recreation Area is uncertain.

## Dingmans Creek

While crossing the second footbridge, note the color of Dingmans Creek. Tannic acid from the bark of hemlock trees leaches into the soil and the creek, coloring the creek and making it slightly acidic. This is the same chemical used to "tan" hides, and in the 19th century there was a tannery upstream.

Tannin is an astringent which causes tissue to contract. "Bark tea" was an early American remedy for sore gums and diarrhea, and hemlock bark also helped to stop bleeding. Both Native and colonial Americans drank a tea made from the twigs and needles of the hemlock.

## Rhododendron



## Dingmans Falls

Rhododendron are plentiful in the ravine because they thrive in acidic soil. Although hybrid varieties of rhododendron bloom in May, you will have to wait until July to see the large, pinkish-white blooms of the native plant in this ravine.

Rhododendron leaves curl tightly under when it is cold outside, reducing the surface area exposed to cold and conserving heat and moisture. If food is scarce, whitetail deer may browse on rhododendron, however ***all parts of this plant and its sap are extremely poisonous for humans.***

Cascading over stair-step layers of shale, Dingmans Creek plunges 130 feet to create magnificent Dingmans Falls.

The many fallen hemlock trees create habitat for residents of the ravine, and as the trees decompose, they also replenish the soil. Despite the acidity of the soil and the creek, many fish, including native brook trout, live in Dingmans Creek and its deep pools.

The water power of Dingmans Creek attracted saw, grist and cider mills here in the 1800s, and the falls have been a tourist attraction for more than a century. From 1888 to its federal acquisition in 1975, Dingmans Falls was a private enterprise that charged admission to see the falls.

The Visitor Center at Dingmans Falls is open weekends and selected weekdays in summer: (570) 828-2253