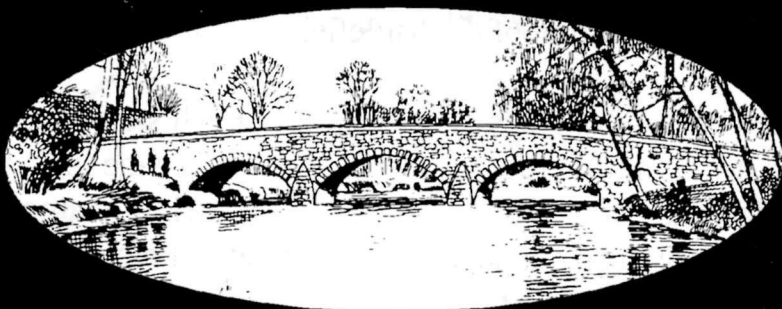


SNAVELY FORD TRAIL



Antietam National Battlefield



INTRODUCTION

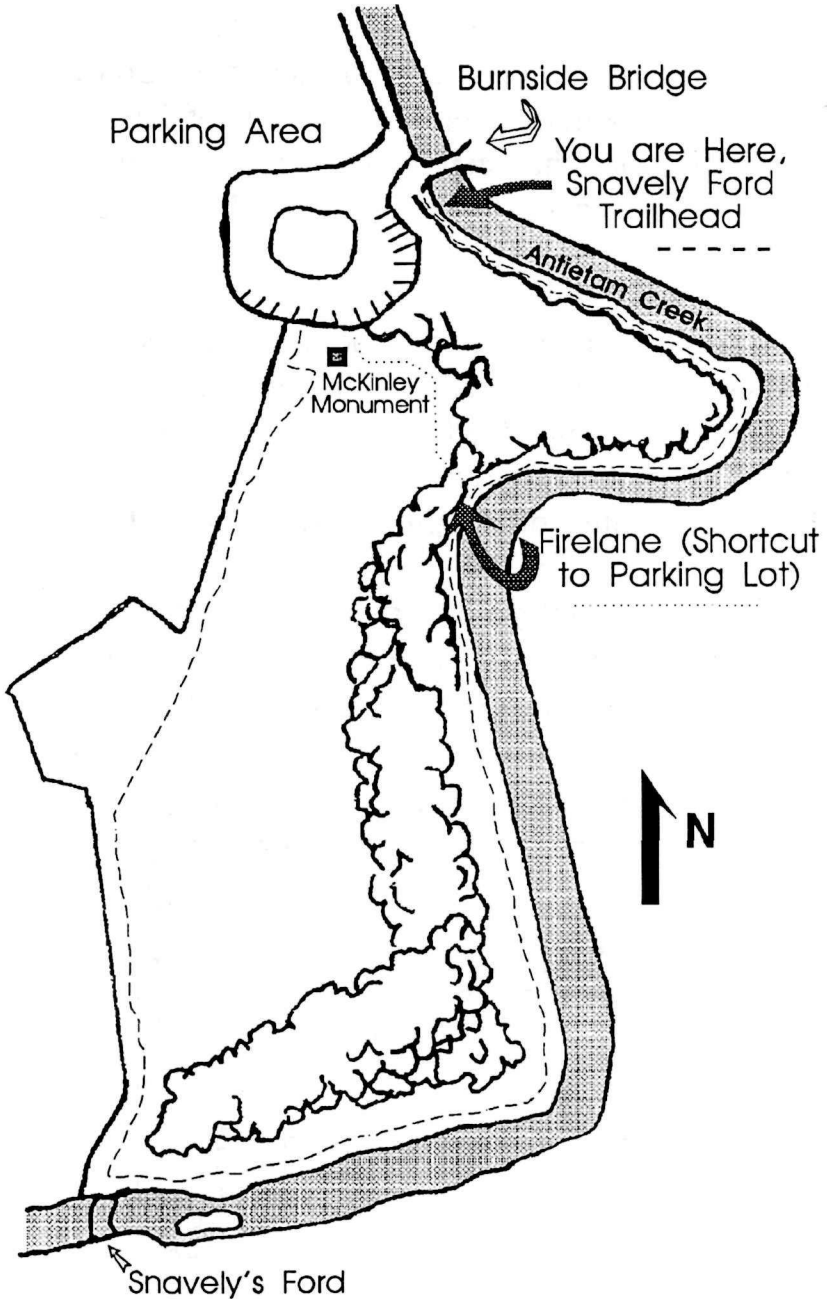
Welcome to Antietam National Battlefield and the Snavely Ford Trail. This trail is 2.5 miles long and usually takes about 90 minutes to walk. If you choose to take a shorter route, take the firelane at marker #5, which will bring you to the parking lot. Please be prepared for a moderate uphill climb at both the firelane and toward the end of the trail.

This trail has two stories. One story is about the final attack on the bloodiest day of the Civil War, while the other discusses some of the natural processes which take place in this section of the battlefield.

There are twelve stops along the trail. Each stop is identified by a numbered post. On the left page of this guidebook, you will read how this historical drama unfolds while the right page contains a natural history narrative.

Please enjoy your hike!

TRAIL MAP

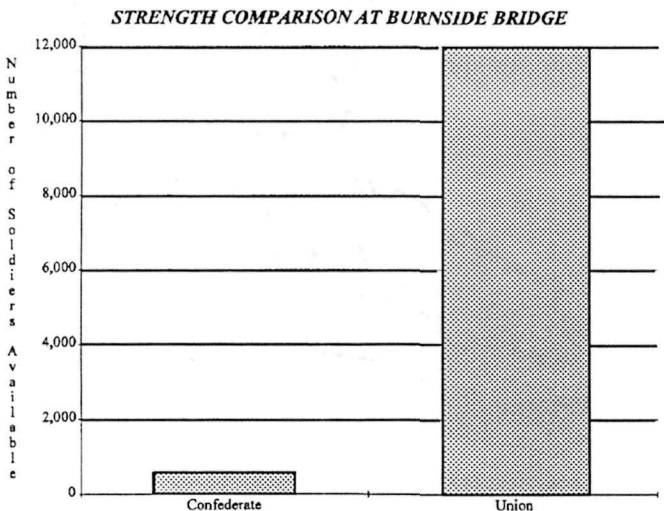


HISTORICAL

STOP 1. As Union Commander General George McClellan pushed his attack to the West Woods and the Confederate Center of the battlefield, the southern end of the Confederate line occupied the steep high ground above the bridge. The position proved to be the most defensible on the battlefield.

Confederate General Robert Toombs and his **Georgian Sharpshooters** numbered less than **600 men**. They had the task of defending the Rohrbach bridge, (known today as the Burnside Bridge) against Union General Ambrose Burnside's Ninth Corps, **approximately 12,000 men!**

Despite this advantage of manpower, Burnside only engaged less than a third of his men at the bridge. He held a third of his men in reserve while he sent another third downstream in an effort to move around the Confederate line.



NATURAL HISTORY

STOP 1. As you walk Snavely's Ford Trail, you are in a typical Eastern deciduous forest **ecosystem**. An ecosystem is a **collection of plants and animals interacting with each other and their environment**. It may be as small as a pool of water which forms after a rainstorm, or it may be as vast as an ocean, but it is defined by the specific plants and animals which live there.

The Eastern deciduous forest ecosystem is characterized by moderate temperatures with distinct seasonal changes and evenly distributed rainfall throughout the year. Along this trail, you will see many examples of the kinds of plants and animals which make up this forest community. You will see many of the ecological processes which enable this ecosystem to thrive.

Elements of an Ecosystem:

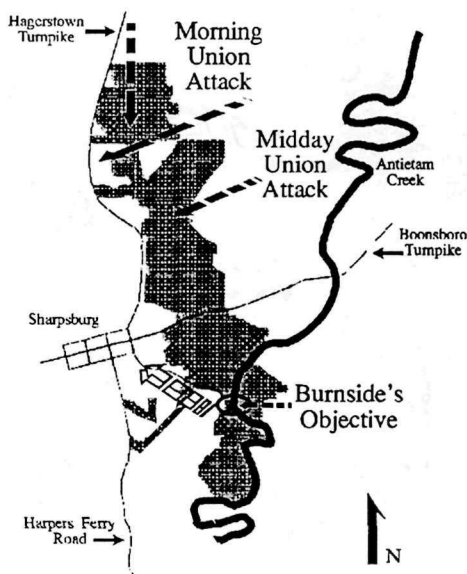


*PLANTS + ANIMALS
INTERACTING WITH EACH OTHER AND THEIR
ENVIRONMENT*

HISTORICAL

STOP 2. According to McClellan's battle plan, Burnside's objective was to gain possession of the bridge and force the right flank of the Confederate line toward the ridge running south of Sharpsburg. From this position, Burnside could then continue the assault by pressing the Confederate line toward Sharpsburg and thus support the earlier Union attacks on the Confederate left and center.

Despite the advantage of troop numbers, General Burnside was hampered by personal conflicts with General McClellan, and didn't begin the attack until 10:00 AM--4 hours later than planned. At first, Burnside's attack focused solely on crossing the bridge. However, these initial attempts failed and Union troops were driven back again and again by the Confederate sharpshooters. Toombs's men used this high ground to their full advantage.

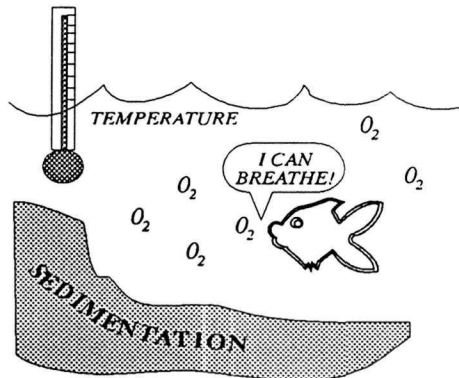


NATURAL HISTORY

STOP 2. Antietam Creek is a clear, fast moving stream which supports a variety of aquatic life including fish, insects, and plants. One of the Park's natural resource management objectives is to monitor and protect the water quality of this creek and its tributaries. This is one way to ensure that the waters are free of pollutants and excessive sediments--two of the greatest threats to freshwater streams.

Sedimentation is a process by which streams are clogged by erosion of soil from adjacent areas such as croplands. Other water quality concerns include stream temperature, dissolved oxygen content (the amount of oxygen dissolved in the water which fish need to breathe), and the amount of pollutants.

Unfortunately, ideal conditions are rare. A park goal is to help improve the quality of Antietam Creek through land-use planning and agricultural conservation practices within the park's boundary.



HISTORICAL

STOP 3. While Burnside continued his piecemeal assault of the bridge, he realized that he would need to extend the Union line southward in order to effectively carry out McClellan's plan. Consequently, he sent approximately 3,000 men downstream under the command of Brigadier General Isaac Rodman to cross the creek at a place known as Snavely's Ford.

Around 1:00 PM, a courier from McClellan's headquarters delivered a message to General Burnside ordering him to "take that bridge, at bayonet point if necessary." Instead of piecemeal attacks, Federal skirmishers now laid down heavy fire along the banks of Antietam Creek and gave cover to a concentrated Union assault, which was successful. At the same time, Rodman's division successfully located and crossed Snavely's Ford and proceeded to head toward the ridge line.

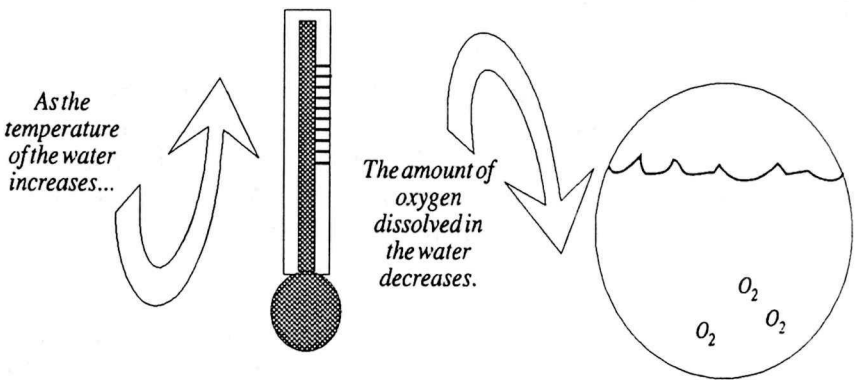
By this point in time, mounting casualties and low ammunition started to take its toll on General Toombs and his Georgian regiments. As a result, they were forced to retreat toward Sharpsburg.

NATURAL HISTORY

STOP 3. Antietam Creek begins as a small stream in Pennsylvania. It flows southward through Maryland and eventually joins the Potomac River below Sharpsburg. As you walk along this trail, you will notice that the flow of the water is not constant...it fluctuates back and forth from rapid to slow throughout its journey to the Potomac.

There are certain plants and animals which live in the fast moving portion of the stream. Trout, for example, prefer cool, fast currents. Cooler water contains higher levels of dissolved oxygen than warmer water. Trout need more oxygen than other species of fish such as bass, catfish and sunfish.

The Relationship Between Temperature and Dissolved Oxygen:



HISTORICAL

STOP 4. Although several thousand men were involved in the action at Burnside's Bridge, this trail guide focuses upon the three primary commanders already mentioned: Confederate General Robert Toombs, and Union Generals Ambrose Burnside and Isaac Rodman.

Who were these men? Where did they come from, and what did they do? This stop as well as the next two contain a brief biographical sketch of these three men.



Robert Augustus Toombs was born on July 2, 1810 in Wilkes County, Georgia. He graduated from Union College in Schenectady, New York and entered politics. He began his political career as a Georgia state legislator (1837 - 1843), and went on to serve in both houses of Federal Congress (1844 - 1861).

When Lincoln was elected President, Toombs felt that Georgia's future lay with the Confederacy. He resigned his Senate seat and became an ardent secessionist. He barely lost the Confederate Presidency to Jefferson Davis, and in fact, served as Davis's Secretary of State.

On July 19, 1861 he was appointed brigadier general. Prior to Antietam, he led his brigade on the Peninsula, and at Second Manassas. Despite an admirable defense of Burnside's Bridge during the Battle of Antietam, he was passed over for a military promotion. As a result, he angrily resigned his commission and spent the rest of the war criticizing the Davis Administration.

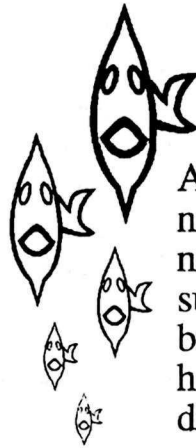
After the war, he fled the country to avoid arrest. He returned in 1867 in hopes of re-establishing his political career. However, he refused to apply for a pardon, and thus never held elected office again. He died December 15, 1885, in Washington, Georgia, and is buried there.

NATURAL HISTORY

STOP 4. Outside the park boundary, Antietam Creek is stocked with a variety of game fish. Among them, is the rainbow trout, an **exotic** species. In this case, exotic means that the species is not native to this habitat (not normally found here).

At one time, brook trout were the native game fish. However, over the course of time, the temperature of the creek has changed. It is higher now due to the discharge of warm water from sewage treatment plants located upstream. As a result, the water temperature is now too high for the brook trout to tolerate, and their numbers have diminished.

Over the years, the temperature of the water in Antietam Creek has increased.



As a result, the number of native species such as the brook trout have been drastically reduced.

HISTORICAL

STOP 5.



Ambrose Everett Burnside was born May 23, 1824 in Liberty, Indiana. He graduated from West Point in 1847 and served for six years in the regular army. In 1853, resigned his commission and moved to Bristol, Rhode Island.

Here, he manufactured a breech-loading rifle which he had invented while serving in the army. Unfortunately, without the expected large defense contract, Burnside went bankrupt in the late 1850's. Ironically, his creditors profited greatly from selling **55,000 Burnside Carbines** during the Civil War.

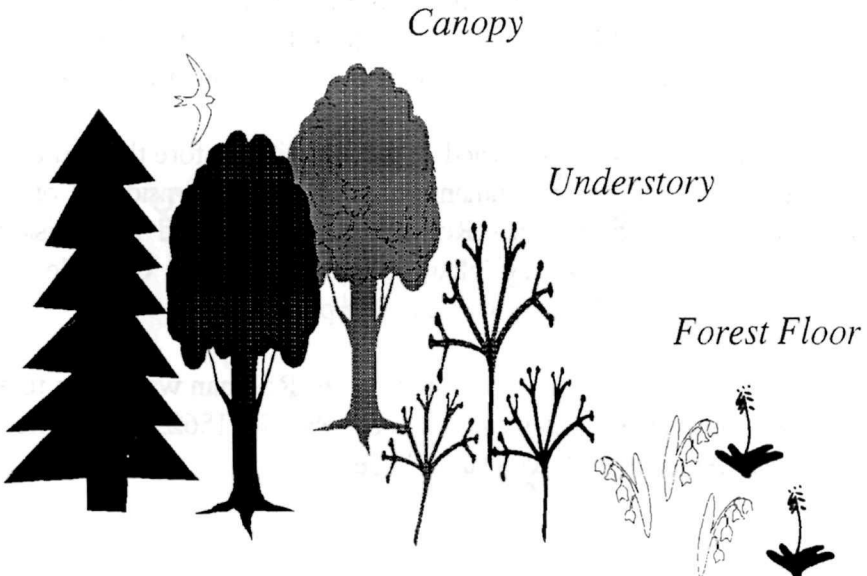
At the outbreak of the Civil War, Burnside organized the 1st Rhode Island Infantry. Success as a leader in early battles gained Lincoln's favor and prompted several promotions. Following the Battle of Antietam, Burnside was ordered to take command of the Army of the Potomac. On December 13, 1862 he suffered an overwhelming defeat at Fredericksburg. By March 1863, he was assigned to command the Department of the Ohio and successfully defended East Tennessee. By spring of 1864, he was once again in command of the 9th Corps, Army of the Potomac, but failed miserably at the Petersburg Crater. This defeat eventually led to his resignation on April 15, 1865.

After the war, Burnside enjoyed an active career in Rhode Island politics. He served as the state's governor from 1866 - 1868, and was elected to the U.S. Senate in 1874. He continued to serve in the Senate until his death on September 13, 1881. He is buried in Swan Point Cemetery, Providence, Rhode Island.

NATURAL HISTORY

STOP 5. The surrounding forest can be viewed as three distinct layers. The **top layer** of trees in a forest is called the **canopy**. The canopy around you contains large trees such as oak, yellow poplar, sycamore, and American beech. Smaller trees such as dogwood, hawthorn, and pawpaw form a **secondary layer** called the **understory**. The **third layer** consists of plants that live on the **forest floor**.

This layering effect creates different habitats for the plants and animals in this ecosystem. Plants and animals with different light, temperature, moisture, food, and shelter requirements will live at different levels in the forest. Some of the animals that live along the Snavely Ford Trail include: deer, racoons, opossum, squirrels, mice, woodchucks, and several species of birds.



HISTORICAL

STOP 6.



Isaac Peace Rodman was born on August 18, 1822 in South Kingston, Rhode Island. He received a basic education in the local schools and then went into business with his father. He became a prominent merchant and served on the town council. Eventually, he went on to serve in both branches of the Rhode Island state legislature.

Although he was a Quaker, Rodman entered the army at the beginning of the Civil War. On June 6, 1861, he accepted a captaincy with the 2nd Rhode Island. He resigned this position on October 25, 1861 in order to accept a promotion to colonel with the 4th Rhode Island.

By April 1862, Rodman was again promoted, this time to the rank of brigadier general. This came at the request of General Burnside. It was also at this time that Rodman was thought to have contracted typhoid fever. Consequently, he was sent home to Rhode Island to recuperate.

After several months, he returned to the army just before the battle of Antietam and was given command of a division in Burnside's Corps. It was here at Antietam that Rodman successfully led his division across Antietam Creek and charged uphill into the Confederate line held by Robert Toombs' Georgia Sharpshooters.

During this assault, he was shot in the chest. Rodman was taken to a battlefield hospital and survived until September 30, 1862. He is buried in a family cemetery in Peace Dale, Rhode Island.

NATURAL HISTORY

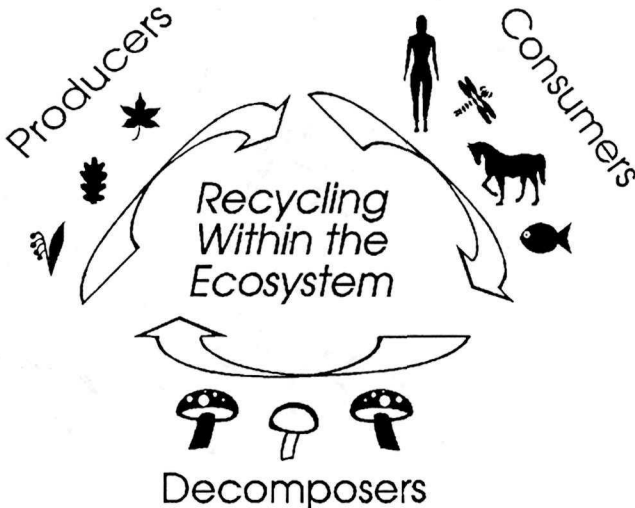
STOP 6. All ecosystems contain three broad categories of organisms: **Producers, Consumers, and Decomposers.**

All **green plants** are **producers**--they take light energy from the sun and minerals from the soil and convert them into food for other organisms.

All **animals** are **consumers**--they eat the food provided by the producers.

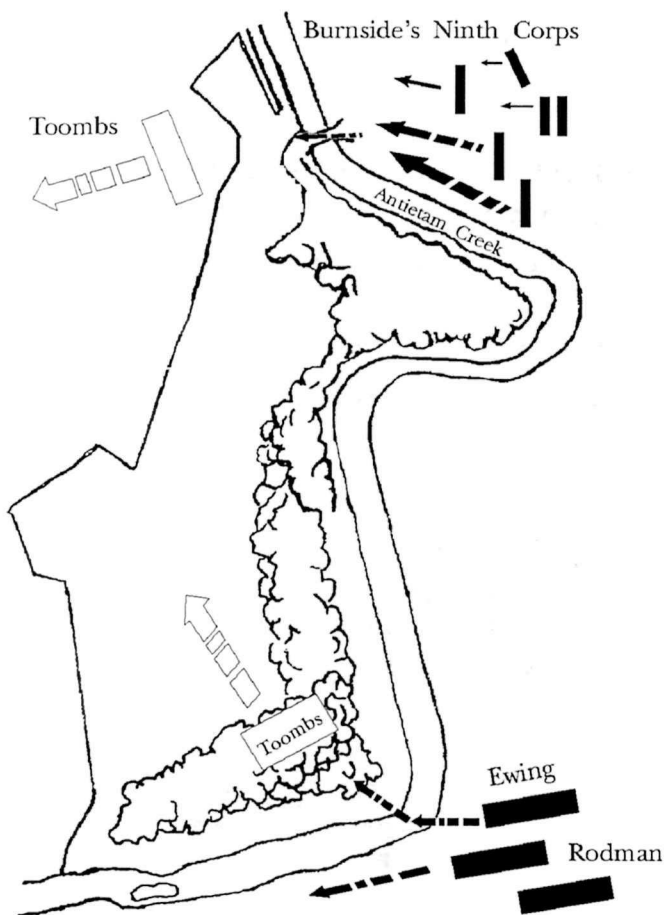
Decomposers are organisms such as **bacteria** and **fungi** that break down dead organisms into the basic minerals that green plants (the producers) need.

In this way, everything you see in this ecosystem is constantly changing and is recycled.



HISTORICAL

STOP 7. While marching toward Snavely's Ford, General Rodman's division was accompanied by Colonel Hugh Ewing's Brigade of Ohio regiments. It was at this bend of the Antietam that the Ohio units crossed. By using this route, Colonel Ewing had hoped to flank the Confederates and converge upon Sharpsburg with the other Union forces already fighting upstream.



NATURAL HISTORY

STOP 7. As you walk down this trail, how many examples of Producers, Consumers, and Decomposers can you find?



Producers?



Consumers? or

Decomposers?



HISTORICAL

STOP 8. While Rodman and his troops continued their march downstream, Colonel Ewing and his men pressed on toward the ridgeline above the creek.



"We crossed the ford of the Antietam under a shower of grape, and after being held under a trying fire from the enemy's batteries for some time, made...a charge. One of my aides, Lieutenant Furbay, the memory of whose gallantry and worth is written in the hearts of his comrades, was shot, by three balls, through the body. Another, Lieutenant Headington, had his horse killed under him. Lieutenant Duffield, who had been acting as my aide temporarily, was also killed, being twice shot. A soldier more conscientious in the discharge of every duty did not live.

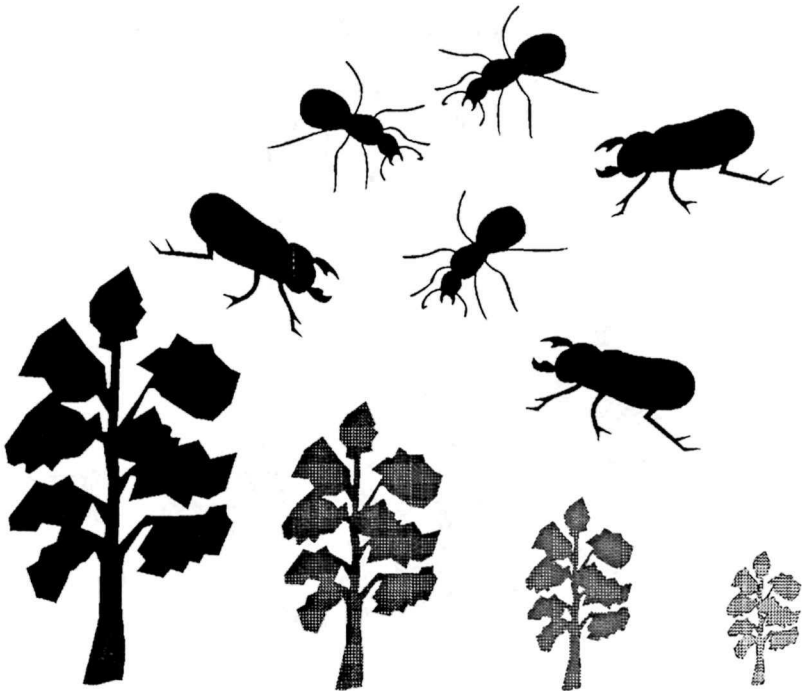
The troops of the brigade behaved with gallantry..."

HUGH EWING
Colonel, Commanding Brigade

NATURAL HISTORY

STOP 8. This hollowed-out tree trunk is an example of nutrient cycling, and the return of organic matter to the soil. Fungi, bacteria, and various insects such as termites commonly live in dead stumps, as well as living trees, and eventually decompose them to the basic building blocks of soil formation. If you look carefully, you may see termites at work hollowing out the base of this tree.

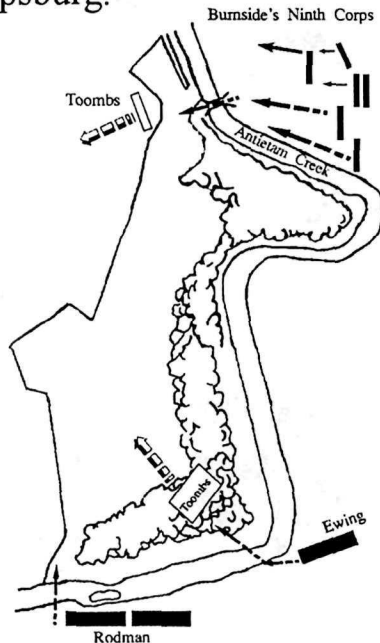
Insects Like Ants and Termites
Live in Both Dead and Live Trees
and Assist in Their Decomposition



HISTORICAL

STOP 9. Rodman's division finally made progress after being sent downstream that morning. General Burnside's lack of foresight, and failure to locate shallow crossing points along the Antietam only added to the confusion of this battle.

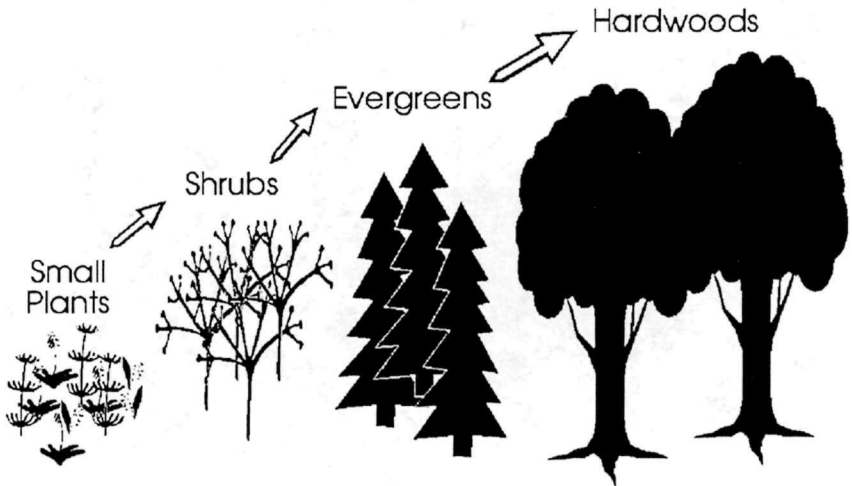
Burnside only knew of one crossing, called "Snavelly's Ford." As a result, General Isaac P. Rodman's division was eventually sent two-thirds of a mile downstream from the Rohrbach bridge to find the ford. However, Snavelly's Ford wasn't found at the prescribed location and Rodman's division was forced to continue the march until they reached this crossing. It was here, that Rodman's men crossed Antietam Creek and continued their climb toward the ridge south of Sharpsburg.



NATURAL HISTORY

STOP 9. As the trail moves away from the Creek, you will notice a change in the environment. The soil is not as rich nor as deep as the soil along the creek's banks, and the vegetation begins to change. The area of change is called a **transition zone**. This area contains several plant communities which represent different stages of a process called **ecological succession**. In this process, different types of plants replace each other over the course of time until a stable or climax vegetation is reached. In the Eastern deciduous forest, the typical pattern of succession goes from small plants to shrubs, followed by evergreens, and finally hardwood trees such as beech, hickory, and maple. As you look around you, you can actually see these different layers and zones of vegetation.

Patterns of Succession



HISTORICAL

STOP 10. Before they could rejoin the battle, Rodman's division faced a two-mile march. The portion of the trail you are now following crossed part of Rodman's route.

"The steepness of the hillside, the thickness of the wood, and the accurate range of the enemy's batteries made the passage through this defile a matter of considerable difficulty. Upon clearing the woods we lay waiting orders for a short time under a hill-side, which the enemy were shelling, the rest of the brigade having passed on while we were in the woods. From here the regiment was ordered...to cross the hill behind which it was lying (a plowed field), and to form in line in a corn field."

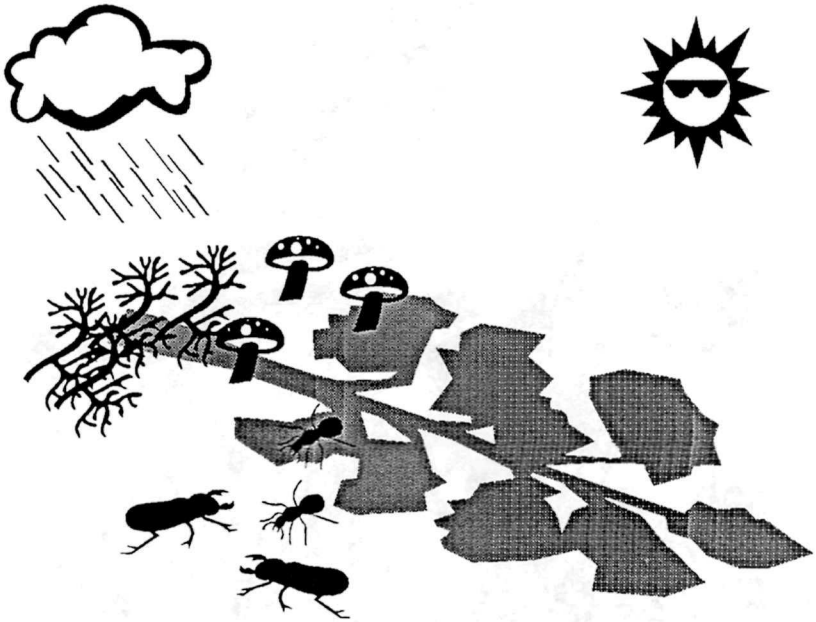
Lieutenant Colonel Joseph B. Curtis
Fourth Rhode Island Infantry



NATURAL HISTORY

STOP 10. A fallen tree plays an important role in an ecosystem. As the tree decays, the minerals and nutrients it contains are broken down and returned to the soil. This process is known as **decomposition**. It is accomplished over long periods of time (**sometimes several hundred years**) by the combined actions of several organisms such as mosses, lichens, and fungi, as well as many types of insects. Decomposition is also aided by wind, rain, and changes of season. In this way, all elements of the environment participate in this process. If you look carefully, you can see evidence of decomposition in this fallen tree.

Agents of Decomposition



HISTORICAL

STOP 11. Rodman's division marched onto the fields before you, toward the Harpers Ferry Road. As one young Confederate soldier noted, "The first thing we saw appear was the gilt eagle that surmounted the pole, then the top of the pole, and next the flutter of the stars and stripes."

As Union forces pressed their attack on the Confederate flanks, valuable time was lost as Union ammunition supplies began to run low. Confusion ensued, and as a result, the Union's advance on Sharpsburg faltered.

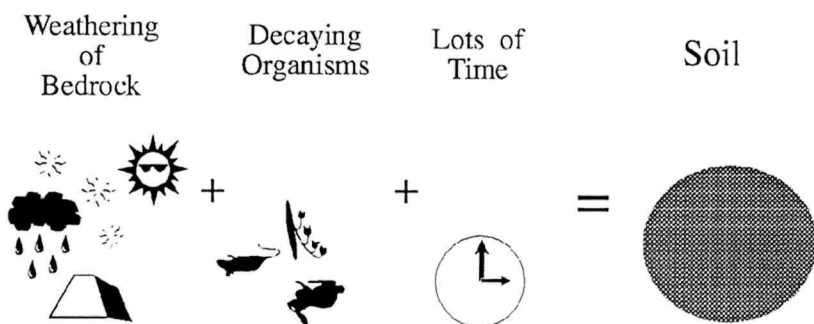


NATURAL HISTORY

STOP 11. Soil is a small layer on the earth's surface in which plants grow. It is formed by the continuous breakdown of rock and the decay of living organisms over the course of time. In the Eastern deciduous forest, it takes about 150 years to form just one inch of soil! It is the storehouse for nutrients and minerals which plants and animals need to live.

Soils on steep slopes require special conservation practices to prevent erosion. During your hike, the slope (the steepness) of the trail has varied from 1% to greater than 15%. As you walked up this portion of the trail, you may have noticed several wooden poles placed diagonally into the ground. They are called water bars and they are used to slow the speed of rainwater as it travels down the trail. By slowing the rate at which water moves down the slope, less soil is dislodged. Consequently, this helps to significantly reduce the amount of soil erosion that can take place on these steep slopes.

The Soil Formation Equation



HISTORICAL

STOP 12. Burnside's entire Ninth Corps appeared on the field ready to fight. The Confederate forces, outnumbered by Union forces, were pressed back toward Sharpsburg. During the conflict, General Rodman's troops advanced against the Confederate line. Amid the chaos, General Rodman was mortally wounded.

Between 3:00 and 4:00 PM that afternoon, Confederate troops marching on the Harpers Ferry Road appeared like a cloud on the horizon. It was A. P. Hill's division arriving after an exhaustive seventeen mile march from Harpers Ferry. Despite their exhaustion, Hill's division attacked Burnside's forces and pushed the Union Army back to the bluff above Antietam Creek and the Rohrbach bridge. Shortly afterward, the fighting ceased, and the Battle of Antietam ended.

On the following day, neither side renewed the attack. Under guise of campfire, Lee and his army quietly slipped across the Potomac and back into Virginia.

Although the battle was a tactical draw, it was considered a strategic Union victory which enabled President Lincoln to issue the Emancipation Proclamation.

NATURAL HISTORY

STOP 12. This area represents another kind of transition zone. Here you will see a change from trees to grasses. This change is the result of continuous human intervention for agricultural purposes. If this area was allowed to revert to forest, the same pattern of succession would take place as that seen along Snavely's Ford.

We hope you have enjoyed this hike. Please return this brochure to the box labeled "Snavely Ford Trail Guide" located at this stop.

If you would like to learn more about the Battle of Antietam or the natural history of the area, visit the Antietam National Battlefield Visitor Center. The Visitor Center houses a bookstore, small museum, and a theater which presents a film and slide show hourly. During the summer, several ranger-conducted programs are presented daily.

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Acknowledgement

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