

Article

# The Search for Scat— Surveying Appalachian Cottontail in Fort Necessity National Battlefield

[Fort Necessity National Battlefield](#)

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*March 12, 2025*

Deep in the snowy forest of Pennsylvania, biologists trek through the trees in search of something very small. Beautiful scenery surrounds them, but they must keep their focus on the ground. At last, they finally find what they are looking for— rabbit poop!



At Fort Necessity National Battlefield (NB), researchers aimed to discover if Appalachian cottontail (*Sylvilagus obscurus*) were present in the park. Although little is known about their distribution or range, the Appalachian cottontail is listed as a species of greatest conservation need by the [Pennsylvania Game Commission](#) (PAGC). According to Matt Marshall, Program Manager at the [Eastern Rivers and Mountains Inventory & Monitoring Network](#), their habitat is likely restricted to pockets of forests at higher elevations within the Appalachian Mountains. This limits their ability to relocate when faced with threats such as habitat loss. It is vital to conserve this species and its habitat to maintain balanced forest ecosystems.



*The Appalachian cottontail (Sylvilagus obscurus) is a species native to the forests and meadows of Pennsylvania.*



*Researchers found rabbit pellets in the snow to take back to the laboratory.*

*NPS/Nikki Flood*

An inventory was conducted by park staff to find out if the Appalachian cottontail inhabited the park, with the goal to conserve their habitat and protect the species if present. This project was in collaboration with the National Park Service's [Inventory and Monitoring Division](#), PAGC, and [Pennsylvania State University](#) (PSU). With the help of field technicians Nikki Flood and Scott Stollery, the team collected 33 fecal pellet samples, marked their locations, and submitted them to the PSU laboratory for DNA analysis to identify the species. This method was chosen

because it is a simple and efficient way to verify animals' presence without having to capture or trap them.

One challenge described by Brenda Wasler— natural resource manager for the [National Parks of Western Pennsylvania](#), was collecting the correct scat, as rabbits often use deer trails to confuse predators. These clever rabbits led researchers on a wild goose chase when genetic analysis showed some poop belonged to deer! Biologists also had to differentiate between the scat of the Appalachian cottontail and Eastern cottontail (*Sylvilagus floridanus*), a similar but more common species with a larger range.



*The Appalachian cottontail leaves behind a clue for researchers through its tracks in the snow.*

*NPS/Nikki Flood*

Once genetic analysis was complete, six pellet samples were confirmed as the Appalachian cottontail and it was added to the park's official species list. These six samples were found in five different habitat types, indicating some range of the rabbits within the park. Additionally, five samples were confirmed as Eastern cottontail, showing that the two rabbits share some

habitats.

Knowing that Appalachian cottontails are present in Fort Necessity NB, park managers can now work to protect them during forest restoration projects like invasive plant removal, native tree planting, and deer population management. This inventory opens the door for more studies on the Appalachian cottontail, allowing park staff to track this species through long-term monitoring.

*Our knowledge is never really ever complete. There are always things that can be discovered. Then, with that knowledge, how do we change our behavior to protect and enhance the environment?*

—Brenda Wasler