

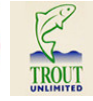


# Hike and Learn

## Teaching Points for the Trout Adventure Trail

TroutAdventureTrail.org

A proud partnership of Trout Unlimited, the US Forest Service, and Boy Scouts of America



### I

## INTRODUCTION

The Trout Adventure Trail is a hands-on education experience during enjoyable hikes on the Appalachian and Benton MacKaye trails in the Chattahoochee National Forest. The length of the hikes will depend on the age, physical ability, attention-span, and goals of the hikers. A scout group, other organization, or family may have different goals for a hike. The educational component for the Trout Adventure Trail informally and subtly complements the hiking experience and should be *fun*. Detailed materials are planned for this website, but for the time being the following information shows the scope and richness of what can be learned on a hike in the wilderness.

## SCOPE AND FORM OF EDUCATIONAL TOPICS

The educational scope is directed at conservation with an underlying emphasis of clean water and stream fauna, including trout, but the scope will also include ancillary topics such as hiking, map reading, safety in the outdoors, leave no trace, photography, forest habitat, forestry, and outdoor careers.

Materials under development will be age-appropriate for pre-teen (Level 1) and teen-to-young adult (Level 2). Educational emphasis may range from historical to practical to scientific topics to the extent that they support the goals and hold the interest of participants. Some of the information will be approved for the Georgia schools educational curricula, and approved material will be designated as such. The website also provides information to assist participants and responsible adults in finding and traveling to the trails and parking areas and in logistically planning a suitable trail experience.

The educational component may include activities, such as map-making, photography, species identification, interactive Q and A, hands on activities and the like. Material may be reviewed on line and/or downloaded for use in teaching on the trail. For example, a discussion of trout habitat on Stover Creek near Three Forks is found at [Trout Need Trees Too](#) – an educational presentation of the USDA Forest Service.

## NON-EXCLUSIVE LIST OF EXAMPLES OF POTENTIAL SUBJECTS

**1. *Trout habitat:*** Trout need cold, clean water to survive. One subject in this topic area can be the range of tolerance for trout. For Level 1 participants, having the hikers place a hand or foot in Long Creek or Stover Creek can emphasize “cold” water. A thermometer can be used to measure the temperature to make sure it is in the acceptable range. The importance of the riparian trees and plants to keeping the water cold enough and clean enough may be discussed.

For Level 2 participants, the discussion can include the fact that tolerance to water temperature varies with species of trout, which can cause some species to dominate when waters approach upper temperature limits. This could lead to a discussion of how non-native species dominate native species (see point 2 and point 3). Materials are under development for further information on this topic.



**2. *Invasive or non-native species:*** A discussion of exotic invaders from the adelgid to non-native trout species can be a topic for Level 1 and Level 2. With regard to Level 1 and Level 2, identifying *hemlock woolly adelgid* and describing the potential harm to the trees and the cascading impact on other plant species, insects, mammals and birds, and the water cleanliness and fish would be appropriate. The experience on the Trout Adventure Trail features the efforts of the Forest Service to control the adelgid chemically and via the introduction of a predator beetle that consumes adelgids. Private organizations and volunteers have joined the fight against the hemlock woolly adelgid. The photo at left shows a volunteer chemically treating Hemlocks near Three Forks in 2012. Trees treated by the US Forest Service and volunteers are marked by numbered tags so the Forest Service can keep track of which trees have been treated and when treatment took place for future study and followup treatments. Over

time hikers should be able to observe the difference between treated and untreated trees.

Teaching points for this topic may include the dangers of introducing exotic species and how the lack of natural predators can be so destructive. Another point would be stewardship by the forest service and volunteers to preserve our forests and streams for the next generation. An interesting exercise would be to have young participants learn from adult leaders or parents about a place the adult used to go to that is not the same now as it was before due to natural destruction, development, fire, or some other cause. What does such a loss mean to the adult and to those who cannot enjoy the place in the same way? An ancillary topic would be the role of rangers, biologists, firefighters, and volunteers in making sure special places are preserved for future generations. Materials are under development for further information on this topic.



**3. Native Trout versus Trout introduced here by man:** Level 1 participants learn about the *brook trout*, a species their grandparents called “Specks”. Brook Trout are the only native trout species in the Appalachian streams. When and how were rainbow and Brown trout introduced? How and why are we now trying to keep some streams purely for native brook trout? The waterfall on Long Creek is a natural barrier. The spillway at Stover Creek is a man-made barrier accomplishing the same result: brook trout above and rainbows and browns below.

For Level 2 participants, we can cover why brook trout are at a competitive disadvantage to brown and rainbow trout and what that means for brook trout survival. What are the advantages and disadvantages of having Rainbow and Brown trout in some of our waters. Can all three species coexist? Why are the government and some private businesses in the business of raising and stocking non-native fish? What are the benefits and disadvantages of stocking brook trout, a native species? Materials are under development for further information on these topics. For more information on restoring brook trout habitat near Three Forks, see [Trout Need Trees Too](#) – an educational presentation of the USDA Forest Service.



**4. Trout as a Predator and as a Prey:** What do trout eat and how do they avoid being eaten? Trout in tiny mountain streams have certain survival instincts and behavior that is intriguing for all ages. Where do trout stay in a stream? What do they eat and how do they find food? What steps do trout take to avoid eagles, kingfishers, herons, otters, and their worst predator: man? See [Natural History of Brook Trout](#). Additional materials are under development for further information on this topic.

**5. Social History of the Three Forks Area:** Who lived here before America was discovered and how was this land used before it became part of the National Forest? Why is it protected and what protections are in place for this area? Materials are under development for further information on this topic.

**6. Natural History of the area:** Covers the geological, flora, and fauna history and current status of the southern reach of the Appalachian Mountains. Materials are under development for further information on this topic.

**7. What is a Watershed?:** Explanation of a watershed. The location of the Trout Adventure Trail is a perfect area to demonstrate how springs, rills, runoff, brooks, and streams gather and flow to the Toccoa River and eventually the ocean. Aspects of this material can be prepared for both Levels of participants. Materials are under development for further information on this topic.

**8. Projects to Help Trout:** Man-made stream structures can enhance habitat for trout. This is an intriguing topic with observational opportunities of structures placed by Trout Unlimited and the US Forest Service in the streams along the trail. A placard acknowledging stream restoration efforts is located at Three Forks. Shown in the photo is a US Forest Service and Trout Unlimited work project on Stover Creek. Materials are under development for further information on this topic.



**9. Nature's wonders:** Remarkable natural sights along the trail that may be observed, photographed, and enjoyed.



**10. Trail Lore:** How were the Appalachian Trails formed? Who made them and how did they do it? For information on these topics, see [Appalachian Trail](#) (published by Wikipedia). How do you follow a trail? How do you plan a successful hike (as a teaching experience)? Let the kids help plan the hike or at least review the alternatives with them before the trip. Discuss potential routes, what type of terrain, distances, and experiences might be encountered, and then they will recognize the reality when they actually hike the trail. For example, if the route crosses streams a certain number of times, the young hiker can keep track and mark progress. Most of all, the young hiker will only get a feel for scale of distance and altitude change when they participate in the planning and refer to a map. Materials are under development for further information on these topics.



**11. Leave No Trace:** Leave no trace is a fundamental conservation ethic for all who interact with the outdoors. These materials provide teaching opportunities on this important subject. For more information, see [Leave No Trace Seven Principles](#).

Adults can develop exercises that will intrigue the participants. Hopefully they will not even realize this is an educational as opposed to a recreational exercise. For example, one principle in being considerate to others is to “Let nature’s sounds prevail. Avoid loud voices and noises.” For younger hikers, ask them if they would like the chance to see or hear birds and animals on the hike. If so, they need to be quiet so the animals will not run or fly away. Discuss using a “library voice” or “church manners” while on the trail. An interesting game for elementary aged kids is to see how long they can go without saying a word to anyone (except in an emergency). They can tap each other on the shoulder and use “sign language” to point something out ... but not talk.

## **IDEAS FOR SCOUT LEADERS AND PARENTS OF SCOUTS**

For scouts, there are opportunities for rank advancement or merit badge accomplishment depending on the length of the hike and observations and activities, and the route selected may afford both learning and achievement opportunity for hikers. For example, scouts seeking second-class rank will need to plan their hike and travel at least 5 miles for a qualifying hike. Likewise, the Hiking Merit Badge requires qualifying hikes to be certain lengths. You may not want to plan a 9-mile hike if an additional mile would meet a requirement for a merit badge. For more information, see [Advancements and Awards](#).