



Ohio River Foundation's
2015 Youth Conservation Team
Daniel Boone National Forest

What is a Youth Conservation Team?

The Ohio River Foundation's Youth Conservation Team (YCT) program is an opportunity for high school students to work on conservation projects that benefit both the environment and their community. Crews consisting of six high school students led by a Crew Leader are hired for 3-6 weeks during the summer to complete projects ranging from erosion mitigation work and invasive plant removal, to tree and vegetation planting and river cleanups. The teams work in various locations in the Ohio River Watershed, with agencies and organizations that the Ohio River Foundation partners with, including park districts, National Forests, and National Wildlife Refuges. For summer 2015, there were YCT programs in Eastern Kentucky (Daniel Boone National Forest), Southern Indiana (Big Oak National Wildlife Refuge), and Southwest Ohio (Hamilton County and Cincinnati Parks).

What are the program details?

The crews work six hours per day, four days per week and have an Education Day one day a week. The work varies and depends on what the park, National Forest, etc. needs completed at their location. It can range from working on wildlife projects or working on trail stabilization, to fixing erosion problem areas or planting vegetation. The Education Days are a great way for the students to learn about topics that are important and relevant to both the environment and their communities. Educators, scientists and professionals from various backgrounds, including wildlife biologists, hydrologists and botanists, lead the Education Days. The educational component helps to shape the value of the work for the students, as well as open their eyes to opportunities in natural resources. It gives them an idea of the work being done, and work that still needs to be done, to protect watersheds and natural resources.

Why does it matter?

This program is unique in that it empowers local youth to learn, develop team work skills, and spend hours outdoors, while actively helping to improve their community, the surrounding watershed and the natural resources in their area. The principle of leaving a positive mark on the natural world is instilled in the high school students simply by the nature of the program.

Accomplishments of the 2015 Daniel Boone National Forest YCT:

This year's Daniel Boone National Forest YCT completed 11 conservation projects. The majority of time was spent removing invasive plants, but the crew also assisted with the building of a staircase for a trail, took part in a river cleanup, and seeded invasive removal areas with native grass seed. In just five weeks the crew:

- Removed 10,600 ft² of densely growing invasive grass and shrubs
- Removed 48,500 ft² of less dense/ more spread out/ invasive grasses
- Removed invasive plants from 6.3 miles of roadside
- Transported 16 - 2"x6" boards that were 12'-14' in length over 2.25 miles for a trail staircase
- Helped to assemble and install 4 support beams for a trail staircase
- Removed 42 tires and 6 trash bags full of trash from 4 miles of the Red River
- Seeded 15,600 ft² of invasive removal areas with the cover crop, annual ryegrass.

Summary of Conservation Practices	
Type of Conservation Practice	Number Completed
Invasive Plant Removal	7
River Cleanup	1
Trail Improvement	1
Covercrop Seed Planting	2
Total	11



Invasive Plant Removal

One of the major goals at Daniel Boone National Forest was to work on removing invasive plants. The crew spent much time working in a clearing that was completely overgrown with the invasive *Miscanthus sinensis*, or Chinese silvergrass. This grass can grow to be 5 to 10 feet in height and generally grows in large clumps along roadsides, in disturbed sites and where it can gain access to full sun. In order to effectively prevent the grass from growing back, the whole rhizome system needs to be removed. This was done by digging up the plants using shovels and mattocks. In the pictures below, it is clear how densely the Chinese silvergrass was growing in this particular field, where the crew was able to remove 10,600 ft² of the grass. In other areas, the plants were still quite large, but they were much more spread out and thus slightly easier to work with, allowing for a much larger area of plant removal.



Before



After





Before



After

The crew removed Chinese silvergrass from along 6.3 miles of roadways, and from a total of three clearings. Other invasive plants that were removed from these areas included autumn olive, multiflora rose and Japanese stiltgrass. These invasive plants outcompete native species for vital resources such as sunlight, water and space.



Above, invasive multiflora rose.

Native Seed Planting

After large areas of invasive grasses were cleared, the crew went back in and disturbed the soil, then seeded the areas with annual ryegrass seed, a cover crop species, with hopes of establishing a native community and preventing the reestablishment of the Chinese silvergrass.

River Cleanup

The crew was able to spend a day helping Forest Service staff and interns clean up a 4-mile stretch of the Red River. The group was able to remove 42 tires, a TV, part of a dryer, part of a stove, and many trash bags full of small trash. Johnboats and canoes were used to travel down the river and collect the trash. Helping to keep waterways clean and free of debris makes them more enjoyable for people, and also creates a healthier habitat for wildlife.



Trail Improvement

The crew spent several days assisting with a trail project. They dug postholes, carried lumber to the site, and constructed 4 posts to support a new staircase. Maintaining safe and usable trails is key in keeping foot traffic to designated areas, which helps to reduce erosion and protect wildlife and plants.



Crewmembers carried a total of sixteen 2"x6"s to the work site, which was over 2.25 miles away from the trailhead.



The crew dug four postholes, one for each of the assembled posts.

Education Days

Each week, the crew participated in an Education Day led by Forest Service staff. The crew gained insight about the importance of their work while learning about ecology and natural resources in their community.



Forest Service botanist David Taylor taught the crew about tree identification as well as forest measurements.



One of the Education Days centered on wildlife and management. Wildlife biologist Christy Wampler taught about macroinvertebrates and mammals.



To the left, crewmembers take a soil core sample while forest soil scientist Claudia Cotton explains different types of soils and their importance.



Many thanks to everyone who helped in making the second YCT at Daniel Boone National Forest a success!!

Program Funding and Support:

National Forest Foundation
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Daniel Boone National Forest Staff:

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Christy Wampler, Wildlife Biologist
Claudia Cotton, Forest Soil Scientist