



# Reporting Our Progress in Caring for the Land and Serving People



## Central Appalachian Spruce Restoration Initiative (CASRI) Assists in Collecting Soils Soil Resource Program FY2012 Accomplishments Monongahela National Forest, Eastern Region

**State:** West Virginia

**Congressional District:** 1<sup>st</sup>, 2<sup>nd</sup>, and 3<sup>rd</sup>

**Accomplishments:**

- New inventory, and updates to older soil maps for the soil resource program; ecological inventory of 12,500 acres.
- Education for CASRI on red spruce ecosystem restoration and its relationship with the soil resource.
- Providing data for the USFS Climate Change Framework initiative, for carbon sequestration potential in high-elevation red spruce ecosystems in the East.

**Forest Service Contribution:** \$45,000

**Partner Contribution:** \$25,000

**Project Costs:** \$70,000

**External Partners:**

Members of the Central Appalachian Red Spruce Initiative – Multiple external partners, including TNC, USFWS, WVDNR, WVU, WVDOF, private entities, and others.

**Internal Partners:**

USDA NRCS Soil Sciences Division.

Soil survey information is being used by land managers to better understand historic forest habitat conditions and present population dynamics of specialized and habitat-sensitive animals, including the West Virginia Northern Flying Squirrel (*Glaucomys sabrinus fuscus*). The information is used to help target areas most suited to spruce forest conservation and restoration.

CASRI partners participated in a soils field day on Cheat Mountain and throughout the Upper Greenbrier watershed to see a specific soil that forms under conifer dominated canopies. The soil, known as a Spodosol, can be an indicator of the historic range of spruce/hemlock ecosystems and helps to pinpoint the best areas to conduct spruce restoration. Due to the nature of the spruce ecosystem, the characteristics of Spodosols, and the cool, high-elevation conditions in which these soils form, potentials for storing carbon may be among the highest in the country.



*Stephanie Connolly of the Monongahela National Forest describes characteristics of a relic Spodosol soil in a mixed conifer-hardwood stand at 3,700 ft. in the red spruce management area. Members of CASRI discuss the relevance of the findings for future restoration projects.*