

Tracking Those Other Forest Products

“The roots of American ginseng have been harvested from the hardwood forests of eastern United States, along-side timber, since the mid-1700s. Very little is known about this non-timber commodity relative to timber, although significant volumes of ginseng root have been harvested from the same forests along with timber.”

Timber is certainly the best-known forest product, but since before the time of European settlement, people have harvested other plants from the forests for a wide range of purposes.

The U.S. Forest Service National Forest Inventory and Analysis (FIA) program has assessed timber product output (TPO) for more than 60 years by surveying the primary producers of industrial roundwood in each state on a three- to five-year cycle. TPO assessments track which tree species are cut, where logs originate, and the types of products that result. In the South, the Forest Service Southern Research Station FIA program tracks TPO for the 13 southern states.

Recognizing the importance of non-timber forest products – medicinal herbs as well as other edible and ornamental products, for example – FIA decided to develop a non-timber product output (NTPO) assessment system to provide information on this segment of the forest products industry. Jim Chamberlain, a research forest products technologist with the Forest Service Southern Research Station, began working with researchers from the Virginia Tech College of Natural Resources and Environment to develop the protocols needed to systematically monitor non-timber forest products. Focusing on medicinal forest products in Central Appalachia, they started in Virginia with American ginseng as a first case. The collaborators recently published an article on the relationship between hardwood timber harvest and the collection of American ginseng.

This study provides a starting point for developing a system which can periodically report growth and harvest data on all medicinal non-timber forest products. Findings from

data analysis will be integrated into a geographic information system to provide spatial representations of various aspects of the medicinal forest products segment.

Meanwhile, the system is already providing valuable insights into harvests of medicinal forest products in Virginia. “One of our first challenges was to identify the local buyers of these products,” says Chamberlain. “We focused first on buyers of American ginseng root, with the idea that they would also buy other medicinal forest products.”



Photo by Jim Chamberlain



Results from the collaborative bore this out. Surveys showed that ginseng buyers also bought more than 26,000 pounds of slippery elm bark, black cohosh root, wild yam root, goldenseal, bloodroot, trillium, false unicorn, pink lady slipper, true unicorn root, blue cohosh, and Virginia snakeroot.

“Through this effort, we’re now able to identify the FIA inventory units from which these products originate,” says Chamberlain.

“In the future, we’ll expand the work to quantify volumes of other medicinal forest products harvested in similar habitat. The long-term goal is to create a system we can use to regularly track and more thoroughly value non-timber forest product outputs across the nation.”

Adapted from FIA National Program newsletter, reprinted with permission from CompassLive, the online science magazine of the USDA Forest Service Southern Research Station. For more about forest science in the South, sign up for weekly updates from CompassLive at www.srs.fs.usda.gov/compass/.

“American ginseng root has been commercially harvested from eastern hardwood forests for more than 300 years. In the early 1700s, a Jesuit priest living near Montreal, Canada learned of a plant (*Panax ginseng* C.A. Mey) used in Chinese medicine that might be growing in Canadian forests. Soon after American ginseng (*Panax quinquefolius* L.) was found in nearby forests, a vibrant trade developed between the two countries. Commercial harvest began migrating south by the mid-1700s ... From the time of the American Revolutionary War (1775-1783) and the turn of the 20th century, the United States exported an estimated 20 million pounds of dried ginseng root to China.”

— Excerpt from “Understanding the Relationships between American Ginseng Harvest and Hardwood Forests Inventory and Timber Harvest to Improve Co-Management of the Forests of Eastern United States,” by James L. Chamberlain, Stephen Prisley, and Michael McGuffin (2013): *Journal of Sustainable Forestry*, DOI:10.1080/10549811.2013.798828

If you would like to read the full article on the relationship between hardwood timber harvest and the collection of American ginseng, visit www.srs.fs.usda.gov/pubs/43651

Headquartered in Asheville, NC, the Southern Research Station is comprised of more than 120 scientists and several hundred support staff who conduct natural resource research in 20 locations across 13 southern states (Virginia to Texas). The Station’s mission is “...to create the science and technology needed to sustain and enhance southern forest ecosystems and the benefits they provide.” Learn more about the Southern Research Station at: www.srs.fs.usda.gov