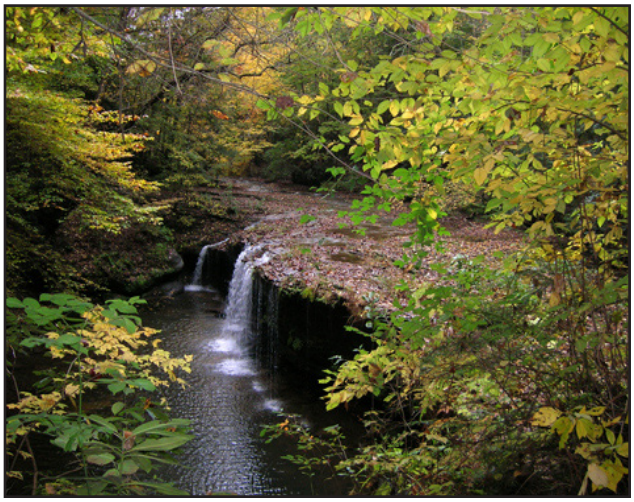
UK COOPERATIVE EXTENSION SERVICE
UNIVERSITY OF KENTUCKY — COLLEGE OF AGRICULTURE

Wildcrafting Non-timber Forest Products — Environmental Issues



Introduction

Wildcrafting, or the collecting of plant products from forests, meadows, and other natural habitats, has been a common practice in Kentucky for generations. Plant materials other than timber that are harvested from the forest are generally referred to as non-timber forest products (NTFPs) or special(ty) forest products.

Wood lot owners may choose to harvest NTFPs as a means of providing temporary income while waiting for their timber stand to mature or as a means of supplementing their income. NTFPs can provide a means to diversify and expand an existing woodland enterprise.

Whether collecting for personal use or for commercial sales, wildcrafting has the potential of adversely impacting our native plant populations. While the effects of collecting NTFPs are not always as obvious as, for example, harvesting timber in logging operations, some wildcrafting activities can cause subtle but lasting damage to the forest ecology.

Over-harvesting, especially of whole plants, can have a devastating effect on a species. Examples abound of plant populations that have declined as a result of the large scale digging of whole plants. Plants with perennial roots that are highly prized, such as ginseng, seem particularly vulnerable. Unfortunately little is actually known about the long-term ecological impact of other types of wildcrafting activities. For example, some scientists are concerned that even the apparently innocuous harvesting of various mushroom species will ultimately affect the productivity of future mushroom populations. Similarly, the large-scale collection of plant seeds or berries could hamper a plant's reproductive ability. When the harvest rate exceeds the species' ability to regenerate, the result could be a lasting decline in population. In addition, the loss of a species can disrupt the complex biological interrelationships existing in the forest, putting other plant or animal species at risk.

In light of these environmental concerns, collectors need to act responsibly by practicing what is commonly referred to as "ethical wildcrafting" or "sustainable wildcrafting." Sustainable wildcrafting does not just mean collecting plant material without depleting the population or doing damage to the habitat. It also entails countering every act of harvest with an act toward sustaining and promoting the plant population.

This profile discusses some of the ways wildcrafters can sustainably collect plant material so as not to jeopardize the future of Kentucky's rich natural resources. Other profiles in this series include an overview of wildcrafting NTFPs and a discussion of various legal issues that pertain to wildcrafting.

CENTER FOR CROP DIVERSIFICATION

Sustainable Wildcrafting

Sustainable wildcrafters attempt to ensure the long term preservation of the forest ecosystem by making every effort to minimize the negative impacts of collecting. Obviously, even the most diligent and conscientious wildcrafter can not altogether avoid disturbing the environment to some degree. However, practicing sustainable methods is one way to help encourage the longevity of the harvested species.

Do not collect endangered species

Before collecting, learn which plants can be ethically gathered and which are considered endangered, threatened, rare, or at risk in Kentucky. Do not collect or disturb plants that are on the U.S. Fish and Wildlife Service Threatened and Endangered Species list, the Kentucky State Endangered or Threatened Plant List, the Kentucky State Nature Preserves Commission Rare Plant list, as well as plants on the United Plant Savers national "at risk" list. Additionally, plants that may not be on any list, but are in danger of being over-harvested locally should be avoided.

Know your plant material

Beyond the understandable need for accurate plant identification, it is important to be familiar with other characteristics of the plants being collected. Knowing the length of time it takes for the plant to reach a harvestable size, how the plant reproduces, and how easy (or difficult) it is for the plant to reestablish itself should influence harvest decisions. Avoid collecting plants that are slow growing and slow to propagate. Choose, instead, to collect species that are prolific and can easily reestablish themselves. Some plants are very sensitive to disturbances and should be avoided. Additionally, collectors should harvest plants when it will be the least damaging to the long-term survival of the population. For example, digging plants only after they are mature and have produced seeds can potentially have less of a negative impact on the populations of some species, such as ginseng.

For obvious reasons, be absolutely sure you do not collect harmful plants or poisonous mushrooms. The ability to accurately identify these plant/mushroom species is critical to avoiding the accidental collection of injurious plant or fungal materials.

Minimal impact

Sustainable wildcrafting means collecting plant material in a way that makes as little of a negative impact on the native population as possible. Collect only from growing sites where plants are plentiful, healthy, and thriving. Instead of digging up (and killing) the entire plant, collect only renewable portions, such as flowers, berries, and branches. If it is necessary to harvest the entire plant, take steps to encourage re-growth or reproduction. For example, Kentucky state regulations require that seeds adhering to ginseng plants dug during the season be removed and planted within 50 feet of the collection site. In the case of other species, planting root pieces, crowns, rhizomes, seeds, etc. may help the planting to continue to flourish. This is where knowledge of how the plant propagates will be useful.

"Minimal impact" also means taking precautions to prevent damage to other non-target plants in the area. Some sensitive plants, such as trillium and lady slipper orchids, can be damaged when the area around them is disturbed, even though they are not the plants being collected. As a general practice, avoid disturbing the soil and forest duff with excessive digging, raking, or foot traffic. Be sure that the removal of plants from a growing site will not result in erosion or other damage to the area. Many of the "Leave No Trace" principles are applicable to wildcrafters.

Steer clear of areas that have obviously been harvested by other wildcrafters. Evidence of digging or clipped plants can be telltale indicators of human activity.

Leave more than you take

Always leave more plant material than you take so that you do not over-harvest an area. Sustainable wildcrafters leave some of the largest and best of the plants in the site so that the population can remain strong. Good environmental stewardship also entails not harvesting all mature plants, but leaving some for the future. Avoid harvesting areas with only a limited number of plants so these may flourish undisturbed.

Collect only what you can use or sell

Harvest only enough plant material for the market you have established. Collecting more than you can possibly market is an unnecessary waste of good natural resources. Also, be sure that the materials you collect are at the plant stage that is marketable. For example, many restaurants do not want small chanterelles with less than a 1-inch cap. Leaving these immature mushrooms an additional few weeks makes them more marketable. It also gives them time to produce spores and, therefore, repopulate the area.

Consider cultivation

Some forest plants can be cultivated either in a wooded location, at the edge of the woodlot, or under artificial shade. A few examples include cohosh, goldenseal, ginseng, ramps, wild yams, American bittersweet, and bloodroot. A number of mushrooms, both native and exotic, can be cultivated on logs or stumps in Kentucky. Cultivation is a way to meet the market demand without endangering or reducing current native populations.

Selected Resources

On the Web

- Kentucky Rare Plant Database (Kentucky State Nature Preserves Commission, 2006) http://eppcapp.ky.gov/nprareplants/index.aspx
- Leave No Trace Principles (Leave No Trace Center for Outdoor Ethics) http://lnt.org/learn/7-principles
- PLANTS Database (USDA-NCRS, 2012) http://plants.usda.gov/
- Species at-Risk (United Plant Savers) http://www.unitedplantsavers.org/content.php/121-species-at-risk
- Threatened and Endangered Species (Kentucky Department of Fish and Wildlife Resources, 2006) http://fw.ky.gov/More/Pages/Kentucky%27s-Threatened-and-Endangered-Species.aspx
- Threatened and Endangered Species in Kentucky (U.S. Fish and Wildlife Service, 2011) http://www.fws.gov/frankfort/pdf/ky_te_list_dec_11.pdf
- Threatened and Endangered Species in Kentucky Organized by County (US Fish and Wildlife Service, 2002) http://www.fws.gov/frankfort/pdf/KY_te_list_by_county.pdf
- Wildcrafting for the Practicing Herbalist (Northeast School of Botanical Medicine) http://7song.com/files/Wildcrafting%20Herbalist.pdf

Books in Print

- *Mushrooms of West Virginia and the Central Appalachians*. William C. Roddy. 2003. University Press of Kentucky: Lexington, KY. 536 pp.
- *Rare Wildflowers of Kentucky*. Thomas G. Barnes with Deborah White and Marc Evans. 2008. University Press of Kentucky: Lexington, KY. 220 pp.
- *Trees and Shrubs of Kentucky*. Mary E. Wharton and Roger W. Barbour. 1994. University Press of Kentucky: Lexington, KY. 592 pp.
- *Wildflowers and Ferns of Kentucky*. Thomas G. Barnes and S. Wilson Francis. 2004. University Press of Kentucky: Lexington, KY. 352 pp.

Reviewed by Thomas Barnes, Extension Wildlife Specialist (Issued 2008, Revised 2012)
Photos by National Forest Service (Daniel Boone National Forest, pg. 1); Matt Barton, University of Kentucky (Robinson Forest, pg. 2); and Thomas Barnes, University of Kentucky (Kentucky Lady Slipper, pg. 3)
June 2012