

## Laurel Knob, NC

By Josh Kelly ©2007

Laurel Knob is part of the Burke-McDowell Tract, a 7,500 acre property that became the first piece of Eastern National Forest in 1912. The Burke-McDowell Tract, though logged intensively beginning in 1907 (Ashe and Rhodes, 1911), still contained substantial acreages of old-growth forest at the time it became National Forest. During the mid 1990s Rob Messick spent several weeks doing field reconnaissance that determined over 4,900 acres on Mackey Mountain and Chestnut Wood Mountain are primary forest, making this piece of the Burke-McDowell Tract the third largest block of contiguous old-growth in Nantahala-Pisgah National Forest.

In the summer of 2005 Rob and Tom Kenney decided to explore another area of the Burke-McDowell Tract, a nameless tributary of Curtis Creek beginning near the summit of Laurel Knob. Above a waterfall, the two found a rich cove forest with an impressive array of tulip poplars, including one over 15 feet in circumference. On the winter solstice of that same year, David Clarke and I decided to see what Rob and Tom had found and ventured up the same creek. Despite slippery conditions produced by an ice storm a few days prior, we ended up hiking up the unnamed stream past several more cascades, and found the largest known poplar on Pisgah National Forest. It is 18.2 feet in girth at breast height, and has a columnar form up over 70' to its first branch, and tops out at 122' tall. We continued on up the hollow past another beautiful grove of tulip poplar and red oak to the Snook's Nose Trail, and from there to the top of Green Knob. On our return we descended down the headwaters of Big Camp Rock Branch, and found impressive old-growth forest there as well.

In the summer of 2006 I made mapping the primary forest in the Laurel Knob area a priority of my job as field director of the Southern Appalachian Forest Coalition's Old-Growth Protection Campaign. In five field days my colleagues and I mapped 891 acres of contiguous primary forest at Laurel Knob, and cored 18 trees to document the age classes present in the canopy.

The major geographic feature of the sight is the ridge trending south from Green Knob to Snook's Nose. The west side of the ridge is very steep with thin soils and dominated by fire adapted trees like Table Mountain pine and pitch pine with a shrub layer of mountain laurel (*Kalmia latifolia*) and various rhododendrons, including the globally rare Carolina rhododendron (*Rhododendron caroliniana*). On the east side of the ridge are several east and southeast flowing drainages, and the most protected of these drainages support groves of large, old trees. Almost all convex slopes support fire adapted communities or stands dominated by chestnut oak.

Waterfalls are also major features of the site, and are the physical impediments that prevented the logging of the commercially valuable old-growth stands at Laurel Knob. Little Camp Creek and Big Camp Rock Branch and its tributaries all have numerous cascades, some of which proved to be impassible for logging.

There are many forest communities present in the 891 acre expanse of old-growth in the Laurel Knob area including Dry Oak-Pine Forest, Pine-Oak/Heath, Chestnut Oak Forest, Rich Cove Forest, Acidic Cove Forest, High Elevation Red Oak Forest, Northern Hardwoods Forest, and Carolina Hemlock Bluff. The dry forest types are the most extensive and occur on all convex, and some concave slopes, depending on aspect. The mesic forest types contain most of the large diameter trees at the sight, which tend to be tulip poplars. However, northern red oak, chestnut oak, hemlock, buckeye, and one sugar maple also reach fairly large diameters at Laurel Knob.

**Table 1: Tree Core Data from Laurel Knob**

<b>Tree Species</b>	<b>DBH</b>	<b>Age</b>
tulip poplar	105 cm	377+ years
yellow buckeye	91 cm	287+ years
chestnut oak	65 cm	232 years in 23 cm - hollow
chestnut oak	89 cm	225+ years
tulip poplar	86 cm	193+ years
chestnut oak	84 cm	185+ years
tulip poplar	69 cm	176 years
Hemlock	89 cm	170 years
chestnut oak	81 cm	145 years in 27cm – hollow
tulip poplar	87 cm	136 years in 15 cm – hollow
tulip poplar	97 cm	128 + years
chestnut oak	72 cm	128 years in 22 cm – hollow
Northern red oak	86 cm	119 years
chestnut oak	71 cm	104 years in 17 cm – hollow
tulip poplar	102 cm	102 years in 20 cm – hollow
fraser magnolia	64 cm	88 years
tulip poplar	79 cm	64 years in 18 cm - hollow
silverbell	55 cm	68 years

Laurel Knob is notable for having the highest known concentration of large and old poplars in Pisgah National Forest. What is particularly impressive about this collection of poplars is that they occur on slopes much steeper than those of other notable poplar sites, such as Joyce Kilmer Memorial Forest. Like Joyce Kilmer, the Burke-McDowell Tract is noteworthy in terms of both human and natural history, and the entire tract and many adjacent ones deserve recognition and permanent protection. The section of the Blue Ridge Escarpment from the Pinnacle south to the boundary of private land, east to NC 80 and north across the Blue Ridge Parkway to the South Toe River would make an appropriate memorial forest to one of the people most responsible for the acquisition of this area as public land: William Willard Ashe. If this vision became a reality, over 8,000 acres of old-growth forest would receive permanent protection and one of the unsung heroes of conservation in the Southeast would gain greater recognition.



Large poplar (*Liriodendron tulipifera*) on Big Camp Rock Branch slopes  
Photo © Dan Entmacher



Nice Poplar on Little Camp Creek  
Photo © Josh Kelly



Tall, Strait Poplar (*Liriodendron tulipifera*) Photo © Josh Kelly



18.2' cbh x 122' tall poplar Photo © Josh Kelly



Poplar Grove at 4000' on Laurel Knob Photo © Josh Kelly



Rob Messick with the largest known tulip poplar on Pisgah National Forest  
Photo © Tom Kenney