

# Winter Key to Common Trees of the Smokies

(Starting at #1 decide which description is the most true and follow to the number indicated)

- 1A If the tree is **evergreen** go to... 32  
1B If the tree is **deciduous** (not evergreen) go to ... 2
- 2A If the leaf scars are **opposite** go to... 3  
2B If the leaf scars are **alternate** go to... 8
- 3A If buds obviously scaled go to... 4  
3B If buds are naked (without scales) or scales imbricate (few and overlapping) go to... 6
- 4A Large terminal buds and leaf scars, twigs stout- BUCKEYE  
4B Buds not as above twigs red or brownish ... 5
- 5A Buds red and rounded, twigs may be red as well - RED MAPLE  
5B Buds brownish and pointed -SUGAR MAPLE
- 6A Terminal bud brown pubescent (slightly hairy), lateral buds much smaller, twigs grayish or greenish ... ASH  
6B Buds green or reddish, narrow and pointed... 7
- 7A New growth on twigs greenish and curving upward, reddish fruits may be present, round ¼" + flower buds may be present, bark resembling reptile skin... DOGWOOD  
7B Terminal bud red to black, bark with vertical striping, on stems under 3" thick; greenish with striping... STRIPED MAPLE
- 8A Buds have more than 3 tight bud scales... 9  
8B Buds are naked (without scales) or scales are imbricate (4 or fewer and overlapping)... 23  
8C If buds are not obvious ... 19
- 9A Shrub-like (small and multiple stems) ... 10  
9B Not shrub-like (one central trunk) ... 11
- 10A Small roundish green buds (aromatic twigs when scraped) ... SPICEBUSH  
10B Pointed and scaly buds ... OILNUT or BUFFALO NUT
- 11A Cluster of several terminal buds ... OAKS ... 36  
11B True terminal bud is present. (has no branch scar) ... go to 12  
11C True terminal bud is not present, or has (false) pseudo terminal bud. ... go to 16
- 12A Buds pointed... 13  
12B Buds more rounded ... 15
- 13A Buds yellowish brown and slender (like little cigars) ½" or longer, smooth grey bark, leaves often persistent... BEECH  
13C Twigs glabrous red-brown, bark ringed on young branches but flaky on mature trees, scraped twigs bitter odor or tasting... BLACK CHERRY  
13D Not as above, and has 3 bundle scars ... 14
- 14A Twigs brown, bark blocky, only a few overlapping bud scales ... BLACK GUM  
14B Bark with horizontal markings (lenticels) buds may be on spur shoots, catkins may be present, scraped twigs with wintergreen odor or taste... BIRCH  
14C Buds greenish brown, many tight bud scales, twigs may have corky wings, spiky ball fruits may be present... SWEET GUM
- 15A Leaf scars large (>¼"), buds yellowish, twigs grayish, bark gray... HICKORIES - 38  
15B Leaf scars small(<¼"), twigs greenish, bark brownish... SASSAFRASS
- 16A Buds and leaf scars very small, less than 1/8" ... 17  
16B Buds larger than 1/8" ... 22
- 17A Bark smooth and grayish... 18  
17B Bark rough.. scaly or furrowed 19
- 18A Trunk muscular looking (with tendons), bud scales with dark margins, some leaves may persist ... MUSCLEWOOD or IRONWOOD  
18B Small roundish green buds (aromatic twigs when scraped) ... SPICEBUSH  
18C Buds slender, bud scales may be hairy on margins SERVICEBERRY
- 19A With reddish or red green twigs and reddish buds... 20  
19B Twigs brown or gray, buds brown to black... 21
- 20A Twigs zig zag, and with prominent lenticels, buds if present rounded and reddish... REDBUD  
20B Twigs reddish or greenish, buds small & dome shaped, single bundle scar, fruit clusters may be persistent. ... SOURWOOD
- 21A Paired spines present, buds absent or sunken... BLACK LOCUST  
21B Buds brownish and may be hairy, twigs may be hairy, sometimes with corky wings on twigs... ELMS -39
- 22A Bark with horizontal markings (lenticels) buds pointed and may be on spur shoots, catkins may be present... BIRCHES  
22B Buds rounded but pointed, reddish to green tipped, twigs striped, as are young stems and reddish sprouts reddish, bark on mature tree flaky brownish with black and blue markings... SILVERBELL
- 23A Terminal bud feathery and or pubescent (slightly hairy)... 24  
23B Terminal bud or pseudo terminal bud smooth or absent... 25
- 24A Terminal bud feathery and yellow to orange ... 26  
24B Leaf scar almost ½" with 3 bundle scars the lower a smile... WALNUT  
24C Hairy but not as above... see other options - 37 CHESTNUT, WHITE PEPPER BUSH, CUCUMBER TREE, WITCH HAZEL
- 25A Terminal bud valvate (elongated with two long clasping scales) ... 27  
25B Not as above ... 28
- 26A Sulfur yellow feathery terminal bud, shield like leaf scar ... BITTERNUT HICKORY  
26B Orangish terminal bud, scraped twig may smell peppery, 5 raised bundle scars... PAW PAW
- 27A Terminal bud pointed and longer than 1", smooth gray bark... MAGNOLIA (Frasier, or Umbrella)  
27B Terminal bud like a duckbill, light brown seed clusters may be persistent, trunk very straight... TULIP TREE  
27C Terminal bud close to ½" long, silver to greenish and furry... CUCUMBER MAGNOLIA
- 28A Buds reddish or reddish brown... 29  
28B Not as above... 30
- 29A False terminal bud ¼" long, ¼" wide, and sitting at angle, multiple sprouts may be present at base of tree... BASSWOOD  
29B Twigs reddish or greenish, buds small & dome shaped, single bundle scar, fruit clusters may be persistent. ... SOURWOOD  
29C Buds ovoid & pointed, twigs striped, sprouts reddish and striped, bark on mature tree flaky brownish with black and bluish markings... SILVERBELL  
29D Twigs glabrous red-brown with lenticels, scraped twigs bitter odor and or taste... BLACK CHERRY
- 30A Bark peeling with smooth white, grey and green patterns, leaf scar encircles buds, wet habitat... SYCAMORE  
30B Buds brownish and may be hairy, twigs may be hairy, sometimes with corky wings on twigs... ELMS -39  
30C Not like either of above... 31
- 31A Bud scales imbricate (overlapping) or almost valvate, large leaf scars with multiple bundle scars... HICKORIES... 36  
31B Twigs red-brown glabrous, brittle jointed, wet habitats ... WILLOW  
31C Twigs green, roundish terminal bud with small lateral buds and small leaf scars... SASSAFRASS

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(Starting at #1 decide which description is the most true and follow to the number indicated)

- 32A If tree has needles go to... 33 (CONIFERS)  
 32B If tree has leaves not needles go to... 35

## CONIFERS

- 33A if it has five needles in a group it is a WHITE PINE  
 33B If it has needles 1/2" or shorter in length it is a HEMLOCK  
 33C If needles are not as above go to ...34

- 34A If needles are in groups of 3 it is a PITCH PINE  
 34B If needles are in groups of 2 with small cones and needles that are twisted it is a VIRGINIA or SCRUB PINE  
 34C If needles are in groups of 2 (maybe some in 3s) with 2" flexible needles it is SHORT LEAF PINE  
 34D If needles are in groups of 2 and has large bristly cones it is a TABLE MOUNTAIN PINE

- 35A If it has prickles on the leaf margin it is a HOLLY  
 35B If leaves are light green and shorter than 3" it is a MOUNTAIN LAUREL  
 35C If leaves are dark green and longer than 3" it is a RHODODENDRON

## GROUPS AND OTHER OPTIONS

- 36 - OAKS  
 -Red Oaks - Northern Red, Black; Bark with gray ridgetops and black valleys.  
 -White Oaks - Grayish flaky bark

- 37 - Terminal bud pubescent (slightly hairy) or waxy  
 CHESTNUT -buds brownish, sprouting from old roots, leaves may persist  
 WHITE PEPPER BUSH - shrub, red flaking bark, peppercorn fruit cluster may persist  
 CUCUMBER TREE- gray to silver green buds with slight pubescence or waxy coating.  
 WITCH HAZEL- light brown feathery buds, yellow strap-like flowers in fall, fruit may be present resembling 1/2 split open nut

## 38 - HICKORIES

- Shagbark - bark peeling out in large strips  
 -Mockernut - Terminal buds roundish and large almost 1/2"  
 -Pignut - Terminal buds roundish but 1/4" size  
 -Bitternut - Terminal bud sulfur yellow & feathery

## 39 - ELMS

- American Elm  
 -Winged Elm  
 -Slippery Elm

