Identification of Common Indiana Conifers

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A number of native and introduced species of coniferous trees have been planted throughout Indiana for forestry uses. The conifers are frequently called "evergreens" or "softwoods." However, these names are not entirely descriptive since some conifers are deciduous and the wood of several species would be classified as hard. The name "conifer" refers to the type of fruit borne by the tree, usually a woody cone; however, the junipers and yews vary in having small berry-like fruits.

The leaves of conifers may be needle-like, such as the pines, or they may be scale-like or awl-shaped, such as the junipers and northern white cedar. Most conifers have persistent leaves which remain green for two or more years before they are shed. Bald cypress and the larches, being deciduous, lose all their leaves in the autumn.

Characteristics used in the identification of conifers include types of leaves, needle length and arrangement, and twig and bud characteristics. Cones, when available, are valuable aids owing to differences in size and form.

The following key to identification is constructed so that a series of alternative choices must be made from pairs of descriptions. After a choice has been made, the number on the right hand margin indicates the next pair of descriptions until the name of the tree is ultimately reached.

References

1. Leaves needle-like (linear) .................................................. 2
2. Needles borne singly on the branchlets .................................. 13
3. Needles in clusters of 2-5 ...................................................... 3
4. Needles in clusters of 10 or more on short spurs on old growth 4
   and singly on new growth, deciduous ................................ Larches
5. Needles in clusters of 5 ....................................................... 5
6. Needles flexible, soft; buds brown ......................................... Red Pine*
7. Needles in clusters of 3 ...................................................... 6
8. Needles stiff, sharp pointed; buds conspicuous, white .......... Austrian Pine*
9. Needles in clusters of 2 or 3 ............................................... 7
10. Needles 6-9 inches long, pale green, slender, slightly stiff ... Loblolly Pine
11. Needles in 2's and in 2's and 3's ........................................ 8
12. Needles in 2's and in 2's and 3's ....................................... 9
13. Needles in 2's (rarely in 3's), 1½-3 inches long, stout, twisted, 10
    arranged sparsely and irregularly on branchlets, twigs with 11
    purplish bloom .............................................................. Virginia Pine
14. Needles in 2's and 3's, 3-5 inches long, slender, flexible, 12
    not twisted, somewhat tufted at ends of branchlets .......... Shortleaf Pine
15. Needles 1-1½ inches long, stout, divergent; buds thickly 13
    covered with gum, cones incurved, pointing toward ends of 14
    branchlets ................................................................. Jack Pine
16. Needles 1½-3 inches long, twisted, buds sharp pointed, slightly 15
    resinous, cones symmetrical, pointing toward base of 16
    branchlets ................................................................. Scotch Pine*
17. Leaves both awl-shaped and scale-like; fruit dark, blueberry-like 17
18. Leaves scale-like in fan-shaped sprays; cones ½ inch long .... Junipers
19. Needles flat in cross-section ............................................. 18
20. Branchlets slender; needles 1/3-1 inch long ....................... Spruce
21. Branchlets stout; needles 1 inch or more in length .......... 19
22. Leaves soft, feathery; light yellow-green above, deciduous .. Bald Cypress
23. Leaves dark yellow-green above, persistent ..................... 20
24. Needles flat, blunt, with two white lines on lower surface . Hemlock
25. Needles flat, sharp pointed, green on both surfaces ........ Yew
26. Buds blunt, often resinous, cones erect .......................... Firs
27. Buds sharp pointed, many scaled, cones pendent ............... Douglas Fir

*These pines have “regular” growth; that is, they produce one whorl of lateral branches each year. The other pines have “irregular” growth; that is, they produce two or three whorls of lateral branches each year and have a more “ragged” appearance.

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Northern White Cedar

Juniper

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Cooperative Extension Work in Agriculture and Home Economics, State of Indiana, Purdue University and U.S. Department of Agriculture cooperating. H. A. Wadsworth, Director, West Lafayette, IN. Issued in furtherance of the Acts of May 8 and June 30, 1914. The Cooperative Extension Service of Purdue University is an affirmative action/equal opportunity institution.