## forestry & natural environmental forestry resources

## 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

Harlow, William M. and Ellwood S. Harrar. *Text-book of Dendrology*, 5th ed. McGraw-Hill Book Company, New York. 1969.

Deam, Charles C. and T. E. Shaw. *Trees of Indiana*. Department of Conservation, Indiana Publication 13a. 1953.



Norway Spruce



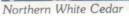
White Pine



Hemlock

1.	Leaves needle-like (linear)
2.	Needles borne singly on the branchlets
3.	Needles in clusters of 2-5
4	Needles in clusters of 5
5	Needles in clusters of 2, 4-6 inches long
6	Needles flexible, soft; buds brown
7	. Needles in clusters of 3
8	Needles 6-9 inches long, pale green, slender, slightly stiff Loblolly Pine Needles 3-5 inches long, dark yellow green, stout, standing stiffly at right angles to branchlets Pitch Pine
9	. Needles in 2's and in 2's and 3's
10	Needles in 2's (rarely in 3's), 1½-3 inches long, stout, twisted, arranged sparsely and irregularly on branchlets, twigs with purplish bloom
11	Needles 1-1½ inches long, stout, divergent; buds thickly covered with gum, cones incurved, pointing toward ends of branchlets
12 12	Leaves both awl-shaped and scale-like; fruit dark, blueberry-like
13	8. Needles angular in cross-section (either triangular or square); branchlets with peg-like projections Spruce 8. Needles flat in cross-section
14	I. Branchlets slender; needles 1/3-1 inch long
15	5. Leaves soft, feathery; light yellow-green above, deciduous
16	5. Needles flat, blunt, with two white lines on lower surface
1'	7. Buds blunt, often resinous, cones erect
66	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" ppearance.







Juniper

RR 12/85 (4M)