TAXONOMIC CLASSIFICATION OF UPPER PENINSULA TREES & SHRUBS

The "science" of biological classification is called "taxonomy". All living things have been classified into a system accepted world-wide. The names for individuals are latinized and there is only one name for each species. For plants, the classification is largely based on flowers or reproductive organs of the plant. There are various levels of groupings, beginning with general characteristics and becoming increasingly specific. These groupings are listed below. Sometimes, intermediate classifications are used when a particular group of plants make it necessary.

"Species" is the basic unit of taxonomy. Sometimes, variance has been observed within a species and designations such as "variety" or "subspecies" or "forma" might be used. A species, by definition, consists of ". . . a group of similar interbreeding individuals sharing a common morphology, physiology, and reproductive process . . . there is generally a sterility barrier between species, or at lest reduced fertility in interspecific hybrids." [Society of American Foresters, 1998] Incidentally, the "specie" is incorrect. "Species" is the correct singular and plural form of the word.

The use of "scientific" or "latin" names is important only when looking at use and distribution of a species across geography. "Populus tremuloides" can be recognized world-wide, but in Michigan it is known as popple, aspen, or quaking aspen. Many trees have multiple names that can be confusing when it becomes important to know exactly which tree you're talking about.

TAXONOMIC CLASSIFICATIONS *Example: white pine*

Kingdom Plant
Division Spermatophyta
Class Gymnospermae
Order Coniferales
Family Pinaceae
Genus Pinus
Species strobus

TAXONOMY OF TREES IN THE U.P.

Kingdom: **Plant** (duh!)
Division: **Spermatophyta** *(seed-bearing plants*)
Class: **Gymnospermae** *(all the softwoods/conifers)*
Order: **Coniferales** *(all the softwoods/conifers)*
- Family: **Pinaceae** *(pines, spruces, firs, tamarack)*
- Family: **Cupressaceae** *(cedar)*
- Family: **Taxaceae** *(yew)*

Class: **Angiospermae** *(all the hardwoods/broad-leaf trees)*
(Note: from this point on, taxonomic classification varies among manuals)
Subclass: **Dicotyledonae** *(2 "leaves" in the seed, not parallel-veined)*
Super Order: **Amentiferae** *(has catkins)*
Order: **Salicales**
Family: **Salicaceae** *(willows, aspens)*
Order: **Juglandales**
Family: **Juglandaceae** *(butternut, walnut)*
Order: **Fagales**
Family: **Fagaceae** *(oaks, beech)*
Family: **Betulaceae** *(birches, alder, hazel)*
Super Order: **Apetalae** *(flowers without petals)*
Order: **Urticales**
Family: **Ulmaceae** *(elms)*
Sub-subclass: **Polypetalae** *(flowers with separated petals)*
Order: **Rosiflorae**
Family: **Fabaceae** *(locusts)*
Family: **Rosaceae** *(cherries, Juneberries, apples, etc.)*
Family: **Hamamelidaceae** *(witch-hazel)*
Order: **Sapindales**
Family: **Aceraceae** *(maples)*
Family: **Hippocastanaceae** *(horse-chestnut)*
Order: **Rhamnales**
Family: **Rhamnaceae** *(buckthorns)*
Order: **Malvales**
Family: **Tiliaceae** *(basswood)*
Order 21. **Myrtiflorae**
Family: **Thymelaeaceae** *(leatherwood)*
Family: **Elaeagnaceae**
Order 22: **Umbelliflorae**
Family: **Cornaceae** *(dogwood)*
Sub-subclass: **Sympetalae** *(flowers with joined petals)*
Order: **Contortae**
Family: **Oleaceae** *(ashes)*
Order: **Rubiales**
Family: **Caprifoliaceae** *(viburnums, elderberry)*

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