

## Taxonomic Units

```
    Kingdom

      Division
         Class
             Order
                 Family
                     Genus ←
                        Species ←
                            Variety or subspecies ←
                                Cultivar ←
                                      Forma
```

### Plant Nomenclature

- Binomial System
  - Two part name for each species:
    - · Generic term- always capitalized and italicized (in written work)
    - Specific epithet- <u>always</u> lower case and italicized (in written work)
    - Underline entire name when handwritten

## Why two name system?

- Avoids confusion in common names
- International in use
- Descriptive and shows
   relationship to other plants



Perennial hibiscus or swamp mallow= Hibiscus moscheutos

## Whose name is it anyway?

- Linnaeus- "Father of Taxonomy"
  - System for naming organisms
- Third portion of name indicates person whom named plant
  - i.e Linnaeus = L.
  - Camellia japonica (L.),
     Japanese camellia



## Genus (Genera-plural)

- Group of plants that are similar
- Group of plants with reproductive (flowers & fruits) similarities
- For example: Maples = Acer

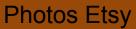


maple

Acer rubrum, red maple

Acer buergerianum, trident maple and Acer rubrum, red maple





and



The Tree center

### Species

(Species-plural or singular; sp.-singular and spp.-Plural)



- Related individuals w/in genus resemble one another; genetic variation prevalent
- Able to breed among themselves, but not with members of another

Chionanthus virginicus, fringetree

## Common species of oak (Quercus)

Quercus macrocarpa, bur oak Quercus palustris, pin oak

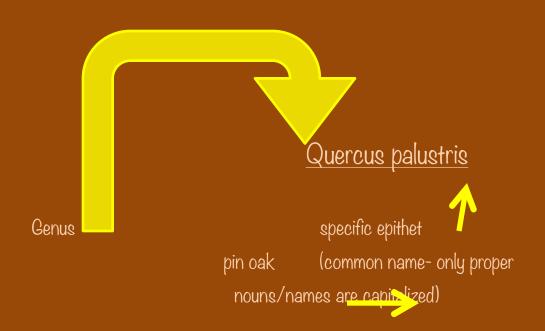
Quercus rubra, red oak







## Proper writing of species



#### Variety or subspecies



- Variation within species distinctive, but not enough to make it a new species
- Natural then propagated by humans
- Self-perpetuating

Acer saccharum subsp. floridanum



# Examples of Variation

- Size (dwarf)
- Habit (weeping
- Leaf color (variegation)
- Flower color or petal count (single vs. double)



Prunus subhirtella var. pendula

## Cercis canadensis var. alba white flowering Eastern redbud



## Picea glauca var. conica Dwarf Alberta spruce



### Cultivar

- -Group of plants with very distinct characteristics that are retained in sexual or asexual reproduction
- -Occurs naturally, then propagated
- -\*Most important unit in horticulture\*
- -Always in single quotes

## Carpinus betulus 'Fastigiata', upright European hornbeam

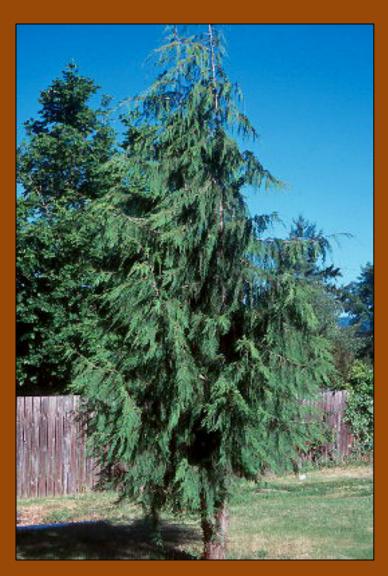


## Cornus florida var. rubra 'Cherokee Chief' Cherokee Chief red-flowering dogwood



**Photo- Weston Nurseries** 

### Additional important nomenclature



• Intergeneric hybrid-cross between 2 genera

For example:

X Cupressocyparis leylandii, Leyland cypress  Interspecific hybrid-controlled (or chance) hybridization between two related species

Prunus x domestica, Pluot plum

cross of P. dor



- Trademark
  - no taxonomic validity (must use with cultivar name)
  - protects discoverer
  - requires royalties be paid, licensing
  - All about \$\$\$\$

Place a ™ behind name get sole rights to that name forever

Place a ® behind name name becomes a registered trademark, with the Office of Patent and Trademarks, in D.C.; expires and must be renewed