Plant Morphology; Tips and Techniques for Proper Plant ID
Presenter: Ted Szczawinski NJ Licensed Tree Expert #340

Plant ID involves observing and touching plants

Morphology at Germination, Juvenility, Maturation or Senescence, throw out the freaks this is nature and odd things happen

MAD Horse & MAD CAP for Ornamentals and Shrubs
And Trees, if they have opposite buds
These are narrowed down by identifying compound (simple, pinnate or palmate), simple leaves that are lobed or un-lobed

Positioning of Buds
Opposite Buds
Alternates Buds
Whorled Buds

Pine, in pairs at fascicles 2, 3's & 5's
Spruce, Sharp, Square, Short, Scent (diamond shape)
Fir, flat cones with or without bracts upright or draping?
Taxis fruit is an aril
Hemlock size of cone is key

Bare twigs broken down by characteristics
Pith, Buds, Petiole Scars, Bud Positioning (alternate/opposite), **Vascular Bundles, Bark, Lenticels, Terminal Bud position** (centered/straight or off centered zigzag twig growth, **Stout versus Slender, Flower Bud Versus Vegetative Bud, Fragrance** (none or malodorous)

Twig fragrance
Sassafras
Magnolia
Tulip (duck's back bud)
Black birch

Architecture and Form: Shrub Prostrate to 18', Ornamental 20' to 40', Shade Tree 45'- over 100'

Genus, Species and Family note the levels of classification, USDA Plants Database

Male & female plant & flowers: males lack fruit however will have flower with limited parts

Quick lists with similarities and traits, thorns, nuts, pomes, etc. within family. Ex: Fagaceae Oaks, Chestnut, Beech

Location or site: upland or wet site for native plant ID

Native, Volunteer or Planted
Morphology - Germination Juvenile Maturation Senescence, throw out the freaks this is nature and odd things happen

Need a good ID book, inexpensive easy to use (Trees of NJ, example of mistakes and name changes do occur, plant science is dynamic not static)

Dichotomous Key (Yes/No or True/False)

You must try and trust your instincts, teams work well, join me for a walk.

Arboretums with tags be leery, humans make mistakes, do research list characteristics of why it is or is not a specific plant, not because some said it isn't. Ted's personal story of ID of Idesia polycarpa and Evodia danielli as examples

Share samples and pictures of plants

Magnolia, star vs. saucer, bud dissection as an example

Be judicious in your process!