

2012 Macomb County Science Olympiad Specimen List for Forestry

| Change | Family/Scientific Name | Common Name | Page-E | Important Associations/Uses/Other Information |
|-------------|-----------------------------|--------------------------|-------------|--|
| | Ginkgoaceae | (Ginkgo Family) | 271E | |
| | <i>Ginkgo biloba</i> | Ginkgo | 271E | only survivor from an ancient family; non-native; dioecious; fruit foul-smelling, so only males are sold; fruit thought to have medicinal qualities |
| | Pinaceae | (Pine Family) | 276E | |
| add - state | <i>Picea pungens</i> | Colorado Blue Spruce | 276NIB | native to western North America; ornamental; used for Christmas trees |
| | <i>Abies balsamea</i> | Balsam Fir | 277E | resin from bark once used for sealing canoes; fragrant |
| | <i>Larix laricina</i> | Tamarack (Eastern Larch) | 281E | deciduous; roots used to bind canoes |
| add - state | <i>Picea abies</i> | Norway Spruce | 282E | native to Europe; timber, paper; ornamental; Christmas tree |
| | <i>Picea glauca</i> | White Spruce | 283E | "Skunk Spruce"; paper; ornamental; Christmas tree |
| | <i>Picea mariana</i> | Black Spruce | 284E | fire to open cones; long fibers good for making paper; sap source of spruce gum |
| remove - st | <i>Picea rubens</i> | Red Spruce | 285E | |
| | <i>Pinus banksiana</i> | Jack Pine | 286E | middle-aged stands provide nesting habitat for endangered Kirtland's warbler |
| remove - st | <i>Pinus echinata</i> | Shortleaf Pine | 287E | |
| remove - st | <i>Pinus palustris</i> | Longleaf Pine | 291E | |
| | <i>Pinus resinosa</i> | Red Pine | 293E | needs fire to germinate |
| remove - st | <i>Pinus rigida</i> | Pitch Pine | 294E | |
| | <i>Pinus strobus</i> | Eastern White Pine | 296E | state tree; important in history of Michigan lumber industry |
| remove - st | <i>Pinus taeda</i> | Loblolly Pine | 297E | |
| add - state | <i>Pinus sylvestris</i> | Scotch Pine (Scots Pine) | 297E | |
| remove - st | <i>Pinus virginiana</i> | Virginia Pine | 298E | |
| | <i>Tsuga canadensis</i> | Eastern Hemlock | 299E | shade tolerant; bark once used for tanning |
| | Cupressaceae | (Cypress Family) | 305E | |
| | <i>Juniperus virginiana</i> | Eastern Redcedar | 310E | often a first successional species after fire in fields or prairies; cones used to flavor gin; aromatic; used for storage spaces; dioecious; alternate host for cedar-apple rust and cedar-hawthorn rust; fruit important for wildlife, especially birds; often browsed by deer; wood used for fence posts, furniture, interior paneling, pencils; oil used for fragrance; not fire tolerant |

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| | Cupressaceae | (Cypress Family) | 305E | |
| | <i>Thuja occidentalis</i> | Northern White-cedar | 312E | favorite winter food and shelter for deer; once used for canoe frames, now used for posts, shingles, fishing floats and lures, telephone poles, railroad ties because does not rot quickly in contact with soil and moisture; not fire tolerant; leaves aromatic; |
| | Palmae /Arecaceae | (Palm Family) | 314E | |
| remove - st | <i>Sabal palmetto</i> | Cabbage Palmetto | 314E | |
| | Salicaceae | (Willow Family) | 319 E | |
| | <i>Populus balsamifera</i> | Balsam Poplar | 321E | spicy fragrance; source of Balm-of-Gilead, which is used as an expectorant |
| | <i>Populus deltoides</i> | Eastern Cottonwood | 322E | |
| | <i>Populus grandidentata</i> | Bigtooth (Largetooth) Aspen | 323E | dioecious; |
| | <i>Populus tremuloides</i> | Quaking Aspen | 326E | Most widely distributed tree in NA and Michigan; reproduces asexually by suckering, producing clone trees - one stand is largest single organism in the world |
| add - state | <i>Salix amygdaloides</i> | Peachleaf Willow | 328E | all willows (inner bark) contain some level of salicin/salicylic acid, a precursor to aspirin; used for headaches, reducing fevers, anti-inflammatory; also have anti-parastic properties, used as dewormers |
| add - state | <i>Salix babylonica</i> | Weeping Willow | 329E | |
| remove - st | <i>Salix bebbiana</i> | Bebb Willow | 330E | |
| add - state | <i>Salix exigua</i> | Sandbar Willow | 333E | |
| | <i>Salix nigra</i> | Black Willow | 335E | |
| | Juglandaceae | (Walnut Family) | 344E | |
| | <i>Carya cordiformis</i> | Bitternut Hickory | 345E | wood used to smoke meat; oil from nuts once used for lamp oil |
| | <i>Carya glabra</i> | Pignut Hickory | 347E | once used for broom handles and wagon wheels; |
| remove - st | <i>Carya illinoensis</i> | Pecan | 348E | |
| | <i>Carya ovata</i> | Shagbark Hickory | 352E | wood used for tool handles, wagon sheels, skis |
| add - state | <i>Carya tomentosa</i> | Mockernut Hickory | 355E | |
| | <i>Juglans cinerea</i> | Butternut | 356E | wood used for carving; sap can be boiled for syrup; produces yellow dye |
| | <i>Juglans nigra</i> | Black Walnut | 358E | wood used for furniture and cabinets; seeds edible; produces juglone, natural herbicide |

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| | Betulaceae | (Birch Family) | 360E | |
| add - state | <i>Corylus americana</i> | American Hazelnut | 360NIB | nuts edible; twigs once used for dowsing rods; wood used to make drawing charcoal for artists |
| | <i>Betula alleghaniensis</i> | Yellow Birch | 364E | crushed fresh twigs smell wintergreen; wood used for furniture, veneers; good for tinder; once used for birch beer, tea; birches (like willows) contain salicin/salicylic acid |
| remove - st | <i>Betula lenta</i> | Sweet Birch | 365E | crushed fresh twigs smell wintergreen; can be tapped for sap, used to make birch beer |
| remove - st | <i>Betula occidentalis</i> | Water Birch | 367E | |
| | <i>Betula papyrifera</i> | Paper Birch | 368E | used by NAs for canoes, baskets, water containers, tinder |
| remove - st | <i>Betula populifolia</i> | Gray Birch | 370E | |
| | <i>Carpinus caroliniana</i> | American Hornbeam | 372E | also known as musclewood and ironwood; used for tool handles |
| | <i>Ostrya virginiana</i> | Eastern Hophornbeam | 374E | once used to make tool handles, rakes, levers, sled runners, wooden dishes and tent stakes; also known as ironwood |
| | Fagaceae | (Beech Family) | 375E | |
| add - state | <i>Quercus prinoides</i> | Dwarf Chinkapin Oak | 375NIB | |
| | <i>Castanea dentata</i> | American Chestnut | 377E | seeds edible; nearly wiped out by chestnut blight; state endangered; Native Americans used tea from leaves for whooping cough |
| | <i>Fagus grandifolia</i> | American Beech | 380E | beechnuts edible, important for wildlife; wood use for furniture, flooring; shade tolerant; wood is good fuel |
| | <i>Quercus alba</i> | White Oak | 382E | wood used for furniture, flooring, whiskey barrels, crates; acorns of most oaks ground for flour (after repeated washings) by Native Americans |
| | <i>Quercus bicolor</i> | Swamp White Oak | 384E | wood used for furniture |
| add - state | <i>Quercus coccinea</i> | Scarlet Oak | 385E | all oaks important source of food for wildlife; number one host plant for lepidopterans (butterflies and moths); acorns (mast) eaten by many insects, birds, mammals |
| add - state | <i>Quercus ellipsoidalis</i> | Northern Pin Oak | 387E | tannins from oaks provided chemicals once used in tanning leather |
| remove - st | <i>Quercus falcata</i> | Southern Red Oak | 388E | |
| remove - st | <i>Quercus imbricaria</i> | Shingle Oak | 391E | |
| | <i>Quercus macrocarpa</i> | Bur Oak | 395E | fire tolerant |

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| | Fagaceae | (Beech Family) | 375E | |
| | <i>Quercus muhlenbergii</i> | Chinkapin Oak | 399E | |
| | <i>Quercus palustris</i> | Pin Oak | 403E | most oaks host wide variety of insects and galls (see http://edis.ifas.ufl.edu/in022 and http://www.ces.ncsu.edu/depts/ent/notes/O&T/trees/note05/note05.html) |
| remove - st | <i>Quercus prinus</i> | Chestnut Oak | 405E | |
| | <i>Quercus rubra</i> | Northern Red Oak | 407E | wood used for furniture, flooring |
| add - state | <i>Quercus shumardii</i> | Shumard Oak | 408E | Michigan species of special concern |
| | <i>Quercus velutina</i> | Black Oak | 410E | bark used for tanning |
| remove - st | <i>Quercus virginiana</i> | Live Oak | 410E | |
| | Ulmaceae | (Elm Family) | 412E | |
| | <i>Celtis occidentalis</i> | Hackberry | 414E | fruit eaten by birds; tolerant of city air pollution; Iroquois used bark for canoes |
| | <i>Ulmus americana</i> | American Elm | 419E | almost eliminated by Dutch elm disease carried by European bark beetle; larval host for mourning cloak, question mark and comma butterflies |
| add - state | <i>Ulmus pumila</i> | Siberian Elm | 422E | |
| | <i>Ulmus rubra</i> | Slippery Elm | 423E | inner bark fragrant, mucilaginous, once chewed to quench thirst and for sore throats; said to taste like licorice |
| | Moraceae | (Mulberry Family) | 428E | |
| | <i>Maclura pomifera</i> | Osage-orange | 429E | fruit not eaten by wildlife; shrikes may use thorns to impale prey; introduced from southern states; used as living "barbed wire" fence, for bows and billyclubs |
| remove - st | <i>Morus alba</i> | White Mulberry | 430E | |
| | <i>Morus rubra</i> | Red Mulberry | 432E | fruit used for jellies, jams, wildlife; state threatened; raw fruit should not be eaten by humans |
| | Magnoliaceae | (Magnolia Family) | 434E | |
| | <i>Liriodendron tulipifera</i> | Yellow-poplar (Tuliptree) | 436E | Native American made dugout canoes from trunks; used for paneling, trim, veneers, hat blocks, honey |
| remove - st | <i>Magnolia grandiflora</i> | Southern Magnolia | 440E | |
| remove - st | <i>Magnolia macrophylla</i> | Bigleaf Magnolia | 441E | |
| | Annonaceae | (Custard Apple Family) | 446E | |
| | <i>Asimina triloba</i> | Pawpaw | 446E | fruit edible, banana-like flavor |

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| | Lauraceae | (Laurel Family) | 448E | |
| | <i>Sassafras albidum</i> | Sassafras | 450E | crushed leaves and twigs have spicy fragrance; roots once brewed into tea, used for root beer; may have medicinal properties, but also considered carcinogenic |
| | Hamamelidaceae | (Witch-Hazel Family) | 452E | |
| | <i>Hamamelis virginiana</i> | Witch-hazel | 452E | once used for dowsing; used as astringent, aromatic |
| | <i>Liquidambar styraciflua</i> | Sweetgum | 453E | |
| | Platanaceae | (Sycamore Family) | 455E | |
| | <i>Platanus occidentalis</i> | Sycamore | 456E | Native American made dugout canoes from trunks; used for butcher blocks |
| | Rosaceae | (Rose Family) | 458E | |
| add - state | <i>Crataegus spp.</i> | Hawthorn species | 458NIB | fruits of some species make good jelly, decent tea; eaten by wildlife; honey; ornamental; thickets of these small trees are good wildlife habitat; shrikes may use thorns to impale prey |
| remove - st | <i>Amelanchier alnifolia</i> | Western Serviceberry | 459E | |
| add - state | <i>Amelanchier arborea</i> | Downy Serviceberry | 460E | edible fruit, important for wildlife; names: "Shadbush" = when shad (fish) run on east coast; "Serviceberry" = traditionally, when ground is thawed enough for burials; see also below |
| remove - st | <i>Crataegus pruinosa</i> | Frosted Hawthorn | 480E | hybridize readily; fruit edible; stock can be used for pear and apple grafts; used a ornamental in landscapes; shrikes impale prey on thorns |
| remove - st | <i>Prunus americana</i> | American Plum | 493E | |
| | <i>Prunus pensylvanica</i> | Pin Cherry | 504E | grows quickly after fires; important pioneer species; fruit edible, good for wildlife |
| | <i>Prunus serotina</i> | Black Cherry | 506E | wood used for furniture; fruit edible but bitter, best in jellies; used as cough medicine; larval host plant for black swallowtail butterfly and > 200 other species of butterflies and moths; susceptible to black knot fungus |
| | <i>Prunus virginiana</i> | Common Chokecherry | 508E | almost entire plant contains cyanide; fruits astringent, can be made into jelly |
| | <i>Sorbus americana</i> | American Mountain-ash | 510E | fruit good for wildlife; inner bark fragrant, astringent, antiseptic; Native Americans used tea from fruit for scurvy |

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| | Leguminosae | (Legume Family) | 513E | |
| remove - st | <i>Acacia farnesiana</i> | Huisache (Sweet Acacia) | 513E | |
| | <i>Cercis canadensis</i> | Eastern Redbud | 518E | flowers appear before leaves; no nitrogen-fixing bacteria root nodules; flower buds edible |
| | <i>Gleditsia triacanthos</i> | Honeylocust | 523E | |
| | <i>Gymnocladus dioicus</i> | Kentucky Coffeetree | 524E | |
| remove - st | <i>Prosopis glandulosa</i> | Honey Mesquite | 525E | |
| | <i>Robinia pseudoacacia</i> | Black Locust | 526E | once used to build ships; has nitrogen-fixing bacteria in root nodules; originally from Appalachian area; clonal; used for fence posts, railroad ties, tool handles; ornamental; except for flowers, all parts toxic to humans; good for honey |
| | Rutaceae | (Rue or Citrus Family) | 534E | |
| add-Div B | <i>Ptelea trifoliata</i> | Common Hoptree (Wafer-ash) | 534E | leaves have citrus smell when crushed; seeds once used for brewing beer as substitute for hops; |
| add-Div C | <i>Zanthoxylum americanum</i> | Common Prickly-ash (Toothache-tree) | 535E | crushed leaves and twigs have citrus smell; once used for treatment of toothache |
| remove - st | <i>Zanthoxylum clava-herculis</i> | Hercules-club (Toothache-tree) | 536E | |
| | Simaroubaceae | (Quassia Family) | 539 E | |
| | <i>Ailanthus altissima</i> | Ailanthus (Tree of Heaven) | 539 E | non-native; considered a "weed" tree; leaves smell acrid when crushed; tolerant of air pollution; allelopathic |
| | Euphorbiaceae | (Spurge Family) | 543E | |
| remove - st | <i>Aleurites moluccana</i> | Kukui | 543NIB | |
| | Anacardiaceae | (Cashew Family) | 545E | |
| add - state | <i>Toxicodendron radicans</i> | Poison Ivy | 545NIB | |
| remove - st | <i>Rhus glabra</i> | Smooth Sumac | 548E | |
| add - state | <i>Rhus typhina</i> | Staghorn Sumac | 551E | soaked seeds produce "lemonade"; fruit important for wintering birds; used for maple sugaring spiles |
| add-Div C | <i>Toxicodendron vernix</i> | Poison Sumac | 552E | oils cause severe skin rash |
| | Aquifoliaceae | (Holly Family) | 557E | |
| | <i>Ilex opaca</i> | American Holly | 564E | evergreen leaves; fruits toxic to humans, eaten by birds |
| remove - st | <i>Ilex vomitoria</i> | Yaupon | 565E | |

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| | Aceraceae | (Maple Family) | 570E | |
| add - state | <i>Acer pensylvanicum</i> | Striped Maple | 570NIB | |
| | <i>Acer negundo</i> | Boxelder | 572E | |
| | <i>Acer rubrum</i> | Red Maple | 577E | young trees, twigs, foliage eaten by deer; used for furniture ("soft maple"; can be used for syrup; bark once used for black ink and dyes |
| | <i>Acer saccharinum</i> | Silver Maple | 578E | "soft maple" |
| | <i>Acer saccharum</i> | Sugar Maple | 579E | source of maple syrup and sugar; wood used in furniture, flooring ("hard maple") |
| | Hippocastanaceae | (Buckeye Family) | 582E | |
| | <i>Aesculus glabra</i> | Ohio Buckeye | 583E | flowers, rest smell foul when crushed |
| add - state | <i>Aesculus hippocastanum</i> | Horsechestnut | 585E | non-native |
| add-Div both | <i>Rhamnus frangula</i> | Glossy Buckthorn | 595E | |
| | Tiliaceae | (Basswood Family) | 597E | |
| | <i>Tilia americana</i> | American Basswood | 597E | wood used for carving, crates, comb honey frames, berry baskets, yard sticks; bees produce high-quality honey from nectar; inner bark once used to weave mats, rope, baskets; steeped blossoms produce mild sedative; source of excelsior for taxidermy |
| | Cornaceae | (Dogwood Family) | 613E | |
| add - state | <i>Cornus alternifolia</i> | Alternate-leaf Dogwood | 613E | |
| add - state | <i>Cornus foemina</i> | Gray Dogwood | 613NIB | grows in thickets, good for wildlife shelter, nesting birds; a larval food plant for cecropia moth |
| | <i>Cornus florida</i> | Flowering Dogwood | 615E | wood used for spools, pulleys, mallet handles and heads, weaving shuttles; ornamental; fruit for wildlife; produces a chemical once used to treat malaria as a substitute for quinine |
| add - state | <i>Cornus stolonifera</i> | Red-osier Dogwood | 617E | erosion control; fruit for wildlife; ornamental; deer use as twigs as winter forage; used for basketry and hide drying frames by Native Americans |
| | <i>Nyssa sylvatica</i> | Black Tupelo (Blackgum) | 620E | bees that collect nectar produce Tupelo honey |
| | Ebenaceae | (Ebony Family) | 634E | |
| remove - st | <i>Diospyros virginiana</i> | Common Persimmon | 635E | |

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| | Oleaceae | (Olive Family) | 644E | |
| | <i>Fraxinus americana</i> | White Ash | 647E | wood used to make tennis raquets, baseball bats, snowshoes, hockey sticks; Native Americans used for canoe paddles, snowshoe frames, sleds; good place to look for morel mushrooms |
| add - state | <i>Fraxinus nigra</i> | Black Ash | 650E | Native Americans used for basketry and oars |
| add - state | <i>Fraxinus pennsylvanica</i> | Green Ash | 651E | |
| | Bignoniaceae | (Bignonia Family) | 663E | |
| remove - st | <i>Catalpa bignonioides</i> | Southern Catalpa | 663E | |
| | <i>Catalpa speciosa</i> | Northern Catalpa | 664E | non-native; wood once used for fence rails and posts |
| | Caprifoliaceae | (Honeysuckle Family) | 669E | |
| remove - st | <i>Sambucus canadensis</i> | American Elder (Elderberry) | 669E | |
| add - state | <i>Viburnum lentago</i> | Nannyberry | 671E | edible berry |
| | Vitaceae | (Grape Family) | NIB | |
| add - state | <i>Parthenocissus quinquefolia</i> | Virginia Creeper | NIB | berry toxic to humans, edible for birds; erosion control |