May the Trees be with You

City of Davis Green Gardening Series
April 25, 2018
Outline

• What is a tree?
• Examples around town
• Benefits
• How to pick a tree for your yard
• Tree care
Tree?

• No scientific definition exists to separate trees and shrubs.

• Generally accepted definition
  – A woody plant having one erect perennial stem (trunk) at least three inches in diameter at a point 4-1/2 feet above the ground; and
  – A definitely formed crown of foliage; and
  – A mature height of at least 13 feet
Common Trees in Davis

- Oak
  - Valley, cork, white
- Sycamore
  - California, London plane
- Pines
  - Canary Island, Ironwood
- Elm
  - English, American
- Ash
  - Modesto, Oregon
- Hackberry, Pistachio, Myrtle, Walnut
Valley Oak – *Quercus lobata*
California sycamore– *Platanus racemosa*
Canary Island pine – *Pinus canariensis*
English elm – *Ulmus procera*
Modesto ash – *Fraxinus velutina*
Chinese hackberry – *Celtis sinensis*
Benefits for Humans

- Solar Shading
- Oxygen production and Carbon sequestration
- Aesthetic enjoyment
- Food
• Urban forests in the U.S. capture 28.2 million tons of C annually. Total current storage capacity of 708 million tons.

• In a comparison study looking at health issues between a community with 18% canopy cover with one having 23% =
  • 20% less adult obesity (21% less child)
  • 20% less type 2 diabetes
  • 11% less childhood asthma

* Source: Sacramento Tree Foundation
Benefits for Wildlife

• Food
  – Direct and indirect foraging opportunity

• Cover
  – Nesting
  – Roosting
  – Aestivation/ hibernation
  – Migration
Food for Wildlife

• Direct forage
  – Leaves, twigs, saplings and fruits are eaten by many species of wildlife

• Indirect forage
  – Insects are attracted to the leaves, flowers, sap, epiphytes/parasites (ex. mistletoe, moss, fungus) and fruits.
  – Epiphytes/parasites are eaten
  – Fallen fruits and nuts attract small rodents and other prey items
Cover for Wildlife

• Live trees provide structure and cover for many species.
  – Canopy
  – Epiphytes/ parasites
  – Trunk
  – Roots
  – Leaf litter

• Snags and fallen trees
  – Cavities
  – Deadwood
Live Trees

- Stick nests in canopy
- Crevices and cavities in trunk and limbs
- Burrows in roots
- Leaf litter
Snags and Fallen Trees

- Food caching
- Nest cavities
- Ground cover
Migration
Choosing the Right Tree

• Consult an arborist or local urban forest agency (see handout)
• Select and plant a tree with full awareness of mature size:
  ✓ Is there space for roots?
  ✓ Canopy?
  ✓ Utility lines!?
• Why do you want the tree?
  • Example – If the tree is to help with solar shading/energy costs, chose deciduous trees and plant on the south side of the house. Evergreens on north and sides
Caring for a Tree

Watering
Most trees that are native or near-native (i.e. drought tolerant) should only require water during establishment and heat waves.

• 10 gal indirect watering a week during year 1
• Mature trees need deep-root watering throughout the root zone (not base!) during heat waves
• Apply a 4” layer of mulch (nature’s weed-n-feed) under tree to help retain soil moisture.
Caring for a Tree

Pruning

Pruning is generally not necessary for tree health.

- Pruning in first 5 years may be helpful to build more stable structure
- Pruning after 5 years should only be done to remove or correct hazards or slow certain pests/diseases
- Dead wood is great habitat where allowable

![A Look at Pruning Diagram](image-url)
Always Check Before You Cut

• Avoid tree pruning or removal during the breeding season (Feb-Aug)
• Consider having a wildlife biologist or seasoned bird watcher survey the tree for nests prior to disturbance.
• Even a thorough survey can miss a nest. Be prepared to seek care for displaced or injured wildlife.
Tree Trivia!

• True of false? The oldest, tallest and biggest tree species in the world all occur in California.
  – True!

• What species is the oldest known living individual tree?
  – Great Basin bristlecone (*Pinus longaeva*)
  – 5,067 years (not the oldest living organism but...)

• What species is the tallest?
  – Coast redwood (*Sequoia sempervirens*)
  – 380 feet

• What species is the biggest in the world?
  – Giant sequoia (*Sequoiadendron giganteum*)
  – 80’ DBH, 275 feet tall (not the thickest species...)

Questions?

John McNerney
Wildlife Resource Specialist
jmcnnerney@cityofdavis.org

Julia Jones
Urban Forestry Supervisor
jjones@cityofdavis.org

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