



## NATIVE LANDSCAPES FOR BIRDS

### ***Plant Knowledge***

1

#### **Why Native Plants?**

- Evolved with wildlife
- Adapted to climate (rainfall/temps)
  - Save water!
- Adapted to soils
- Reduced maintenance
  - No pesticides
  - Less need for lawn equipment
- Create sense of place
- Some non-native plants may be toxic to birds: e.g. Nandina berries

2

#### **Common Name vs. Scientific Name**

- Different plants may have the same common name and/or several common names that can vary from region to region
- To ensure you buy the plant you want, look for the scientific (botanical) name, **not** common one

***Unless you know the scientific name, you won't know which 'Butterfly Bush' you are getting – native or non-native invasive!***

3

---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---



---

## Symbol Key

---

Sun Requirements	Water Requirements
 Shade	 Very Low
 Part Sun	 Low
 Full Sun	 Medium
	 High

4

## Outline

---

- Canopy/Shade Trees
  - Small/Ornamental Trees
  - Shrubs
  - Flowering Plants
  - Grasses and Sedges
  - Groundcovers
  - Vines
- 
- 
- 
- 
- 
- 
- 

5

## Canopy/Shade Trees

---

Typically grow greater than 25' and form a single trunk with greater than 6" diameter

---



---



---



---



---



---



---

6

## Canopy/Shade Trees – Value to Birds

- Nesting habitat if foliage is dense enough; nest building materials
- Snags (upright dead wood) for cavity nesting
- Shelter for birds and other wildlife
- Leaf litter to support and provide shelter for ground foraging birds (and invertebrates that birds may eat)
- Food: seeds, nuts, fruit, invertebrates, foliage, sap, pollen, larval hosts, small vertebrates
- Support for vines

7

---



---



---



---



---



---



---



---

## Ash, White *Fraxinus americana*

High



- Cavity nesting: woodpeckers, owls
- Fall winged seeds: cardinals, finches
- Supports many insects
- Larval host: Eastern Tiger Swallowtail, Mourning Cloak




---



---



---



---



---



---



---



---

8

---



---



---



---



---



---



---



---

## Cedar, Eastern Red *Juniperus virginiana*

Low



- Evergreen shelter
- Nesting material
- Fall/winter blue berries: Cedar Waxwing, American Robin
- Larval host: Hairstreak Butterflies



9

**Elm, Cedar**  
*Ulmus crassifolia*

- Good for nesting
- Winter seeds: finches, chickadees, native sparrows
- Spring buds: small birds
- Larval host: Question Mark, Comma, Mourning Cloak

S. & A. Wasowski wildflower.org

Steve Schwartzman  
wildflower.org

Peggy Romph wildflower.org

10

**Hackberry**  
*Celtis laevigata*

Sugarberry

• Good for cavity nesting  
• Fall fleshy fruit high in carbs, fat, protein  
• Supports many insects  
• Larval host: several butterflies and moths

Donald Everts

Carl Fabre wildflower.org

Norman G. Flagg wildflower.org

Sally and Andy Wasowski wildflower.org

11

# Birds Enjoying Hackberry

12

## Oak, Blackjack

### *Quercus marilandica*



Meg Inglis

- Good for nesting
  - Fall/winter acorns
  - Supports many insects
  - Larval host: Horace's Duskywing, White M Hairstreak

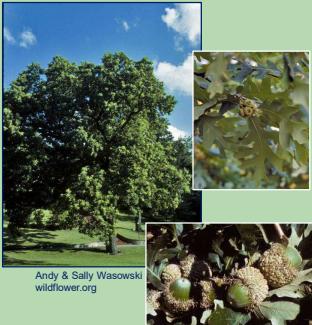


wildflower.org

13

## **Oak, Bur**

### *Quercus macrocarpa*



Andy & Sally Wasowski  
wildflower.org

- Good for nesting
  - Fall/winter large acorns
  - Supports many insects
  - Larval host: Horace's Duskywing, White M Hairstreak

14

## Oak, Chinkapin

### *Quercus muehlenbergii*



Fig. 1. The study area.



Fig. 1. Leaf damage by *Phylloxera* on grapevines.



*Figure 1.* Leaf of *Populus tremuloides*.

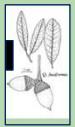
15

**Oak, Escarpment Live***Quercus fusiformis*

S &amp; A Wasowski wildflower.org



Joseph A. Marcus



Flora of North America



Norman G. Flagg wildflower.org

- Semi-evergreen shelter
- Good for cavity nesting
- Fall/winter acorns
- Supports many insects
- Larval host: many species

16

**Escarpment Live Oak**

Juvenile Summer Tanager



Hermit Thrush

---

---

---

---

---

---

---

---

---

---

17

**Oak, Post***Quercus stellata*

Edith Bettinger wildflower.org



Sally and Andy Waesche



Norman G. Flagg wildflower.org

- Good for nesting
- Provides shelter
- Fall/winter acorns
- Supports many insects
- Larval host: Horace's Duskywing, Northern Hairstreak

---

---

---

---

---

---

---

---

---

---

18

**Oak, Shumard***Quercus shumardii*

S &amp; A Wasowski wildflower.org



S &amp; A Wasowski wildflower.org



S &amp; A Wasowski wildflower.org

- Good for nesting
- Provides shelter
- Fall/winter acorns
- Supports many insects
- Larval host: Horace's Duskywing

---



---



---



---



---



---



---



---



---



---

19

**Pecan***Carya illinoiensis*

S &amp; A Wasowski wildflower.org



Norman G. Flagg wildflower.org



R. W. Smith wildflower.org

- Leaf litter
- Nest building materials
- Fall/winter thin shelled nuts
- Supports many insects
- Larval host: many species

---



---



---



---



---



---



---



---



---



---

20

**Shade Tree Review**

1. Which shade tree provides fleshy fruit high in carbs, fat and protein in the fall?
2. What shade tree is the number 1 supporter of butterfly and moth larvae?

---



---



---



---



---



---



---



---



---

21

## Small/Ornamental Trees

Typically grow 10' to 25'  
Single or multi-trunked

---



---



---



---



---



---



---



---

22

## Small/Ornamental Trees Value to Birds

- Nesting habitat if foliage is dense enough; nest building materials
- Potential thickets for shelter
- Shelter for understory movement and from weather
- Fledgling perches
- Nectar for birds and insects
- Food: seeds, nuts, fruit, invertebrates, foliage, pollen, larval hosts
- Support for vines

---



---



---



---



---



---



---



---

23

## Desert Willow

*Chilopsis linearis*



- Nesting materials for native bees
- Spring/summer nectar: hummingbirds, insects
- Fall/winter seeds: doves
- Larval host: White-winged Moth



Kathy Sauder



Pam Williams, wildflower.org

---



---



---



---



---



---



---



---

24

## Dogwood, Roughleaf

*Cornus drummondii*



- Thicket nesting; shelter
  - Spring/early summer nectar
  - Fall white berries: 40 bird species
  - Supports many insects
  - Larval host: Spring Azure



R. W. Smith  
wildflower.org



Kathy Saucier

25

## Holly, Possumhaw

### *Ilex decidua*



- Spring nectar: pollinators
  - Supports other insects
  - Late winter red berries
  - Larval host: Dusky Blue  
Groundstreak, Paw-paw Sphinx  
Moth



Sandra Fountain



Benny Simpson wildflower.org



Unknown NPSOT

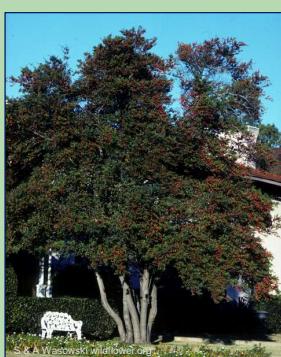
26

## Holly, Yaupon

### *Ilex vomitoria*



- Evergreen nesting, shelter
  - Spring nectar: pollinators
  - Supports other insects
  - Late winter red berries: vireos, waxwings, bluebirds, sparrows
  - Larval host: Henry's Elfin



S & A Wasowski wildflower.org



*Crataegus* (Hawthorn) berries.

27

## Yaupon Holly



## Northern Mockingbird



## Tufted Titmouse

28

# Hoptree

*Ptelea trifoliata*



## Wafer Ash

- Spring nectar: pollinators
  - Supports other insects
  - Fall seeds
  - Larval host: Eastern Tiger and Giant Swallowtails



29

## **Plum, Mexican**

*Prunus mexicana*



1

- Early spring nectar: pollinators
  - Supports other insects
  - Winter fruit: woodpeckers, vireos, thrushes, sparrows, orioles
  - Larval host: Tiger Swallowtail, Cecropia Moth



30

## **Redbud, Eastern**

*Cercis canadensis* var. *canadensis*



- Early spring nectar: pollinators
  - Supports other insects
  - Fall seeds: goldfinches, quail
  - Nesting materials and substrate: native bees, bumblebees
  - Larval host: Henry's Elfin, Elfin butterflies



Julie Makin wildflower.org

Julie Molden wildflower.com

31

## Rusty Blackhaw

### *Viburnum rufidulum*



- Early spring nectar: pollinators
  - Supports other insects
  - Winter blue or black berries: thrushes, flickers, tanagers
  - Larval host: Spring Azure



A close-up photograph of several bright red autumn leaves, likely from a dogwood tree, showing their serrated edges and veins.

Seedy Fountain

Yellow Sassafras

32

## **Sumac, Smooth**

*Rhus glabra*



- Summer nectar: pollinators
  - Supports many insects
  - Nesting materials: native bees
  - Winter red berries: 30 bird species
  - Larval host: Red Banded and Banded Hairstreaks



*Figure 1*

2000-2001

33

## Sumac



34

## Texas Persimmon

*Diospyros texana*



- Semi-evergreen cover
  - Spring nectar: bees, wasps, butterflies, other invertebrates
  - Late summer/early fall fruit: bluebirds, waxwings, warblers
  - Larval host: Gray Hairstreak, Henry's Elfin



Shelly Mai



© 2007 & Andy Wasowski wildflower.org



### **Cardinal with**



三

35

## **Birds like Persimmons**



### Northern Cardinal

36

37

# Cedar Waxwings Eat Lots of Berries

38

# Ornamental Tree Review

39

## Shrubs

Typically multi-trunked, 3' to 10'  
Woody stems persist through winter

---



---



---



---



---



---



---

40

## Shrubs – Value to Birds

- Nesting habitat if dense enough; nest building materials
- Thickets for shelter and cover
- Shelter for understory movement and from weather
- Fledgling perches
- Nectar for birds and insects
- Food: seeds, nuts, fruit, invertebrates, foliage, pollen, larval hosts
- Support for vines

---



---



---



---



---



---



---

41

## American Beautyberry

*Callicarpa americana*



- Early summer nectar: butterflies
- Long lasting fall/winter purple berries: mockingbirds, orioles, cardinals, others
- If berries remain till winter: Cedar Waxwings, Orange-crowned Warblers, towhees




---



---



---



---



---



---



---

42

**Autumn Sage**  
*Salvia greggii*

Benny Simpson - wildflower.org

James Horner

Page 2 Lee - wildflower.org

- Spring through fall nectar: hummingbirds, pollinators
- Supports many insects
- Praying mantises lurk to catch butterflies

Cherry Sage

Low

43

**Buttonbush**  
*Cephalanthus occidentalis*

- Summer/early fall nectar: hummingbirds, pollinators
- Winter balls of seeds: ducks, waterbirds, 25 species of birds
- Larval host: Titan and Hydrangea Sphinx moths

Randy K. Pensabene

Jane T. Tilman

Carolyn Penhollow  
wildflower.org

44

45

## **Flame Acanthus**



#### Black-chinned Hummingbird

46

## **Skunkbush Sumac**

### *Rhus aromatica*



## Rhus aromatica



Rhus  
trilobata



## Fragrant Sumac



- Sandy, gravelly, other well-drained
  - Red fruit on female plants
  - Reddish/orange fall foliage
  - Excellent food and habitat for birds and mammals
  - Prune for shape if desired

47

47

## Texas Lantana

### *Lantana urticoides*



wildflower.org



- Spring/fall nectar:  
hummingbirds, pollinators
  - Late summer/fall round, fleshy  
dark berries: mockingbirds,  
kinglets, robins, cardinals

48

## Texas Lantana Berry Eaters



Ruby-crowned Kinglet



Rose-breasted Grosbeak

---



---



---



---



---



---

49

## Shrubs Review

1. Which evergreen shrub with small prickly leaves provides good shelter for nesting birds?
2. This large arching shrub has magenta berries for migrating birds in the fall.
3. This shrub blooms white in the fall, attracting many pollinators as food for birds.

---



---



---



---



---



---

50

## Flowering Plants

**Perennials:** have a life-cycle of more than 2 years; may be herbaceous or woody-stemmed

**Biennials:** grow vegetatively 1st year, flower and fruit 2nd year before dying

**Annuals:** live only one growing season

---



---



---



---



---



---

51

## Flowering Plants – Value to Birds

- Ground level nesting and shelter for some birds
- Nectar
- Food: seeds, fruit, invertebrates, foliage, pollen, larval hosts

---



---



---



---



---



---



---



---

52

## Black-eyed Susan

*Rudbeckia hirta*



Kathy Saville



Joseph A. Marcus wildflower.org



Lee Photo wildflower.org

- Fall nectar source: insects, bees, butterflies
- Winter seeds: goldfinches
- Larval host: Gorgone Checkerspot, Bordered Patch

---



---



---



---



---



---



---



---

53

## Canada Goldenrod

*Solidago canadensis*

Tall Goldenrod



Harry Rose Flickr Creative Commons



James G. Holmes



Andrea Rockstein Flickr Creative Commons

- Shelter for birds
- Fall nectar source
- Visited by at least 380 insect species
- Winter seeds: chickadees, woodpeckers
- Larval host: 115 species of Lepidoptera

---



---



---



---



---



---



---



---

54

**Ground Level Winter Shelter**

Calliope Hummingbird

55

---

---

---

---

---

---

---

**Heart-leaf Skullcap***Scutellaria ovata*

R. W. Smith wildflower.org

- Spring nectar source: hummingbirds, butterflies
- Gray green fall/winter foliage: shelter for some birds, invertebrates



R. W. Smith wildflower.org



Randy K. Pensabene

---

---

---

---

---

---

---

56

**Horsemint***Monarda citriodora*

Joseph A. Marcus wildflower.org

- Spring/summer nectar: hummingbirds and insects
- Special value to native bees
- Fall seeds: seed-eating birds



W.D. and Dolphia Bradford wildflower.org

---

---

---

---

---

---

---

57

**Mexican Hat**  
*Ratibida columnifera*

Prairie Coneflower

Low Sun

- Summer/winter nectar: bees, butterflies, other insects
- Winter seeds
- Special value to native bees

Benny Simpson Wildflower.org

W.D. and Dolphia Bransford wildflower.org

Joseph A. Marcos wildflower.org

James G. Holmes

James G. Holmes

58

**Purple Coneflower**  
*Echinacea purpurea*

- Summer nectar
- Fall seeds: song and gamebirds

Lee Page Wildflower.org

Joseph A. Marcus wildflower.org

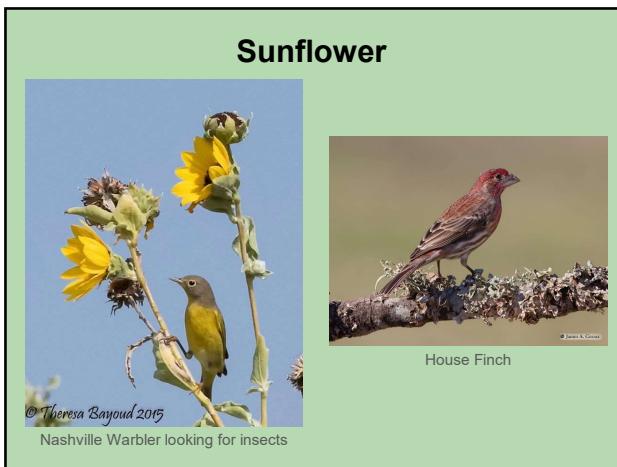
S & A Wiesowski wildflower.org

15

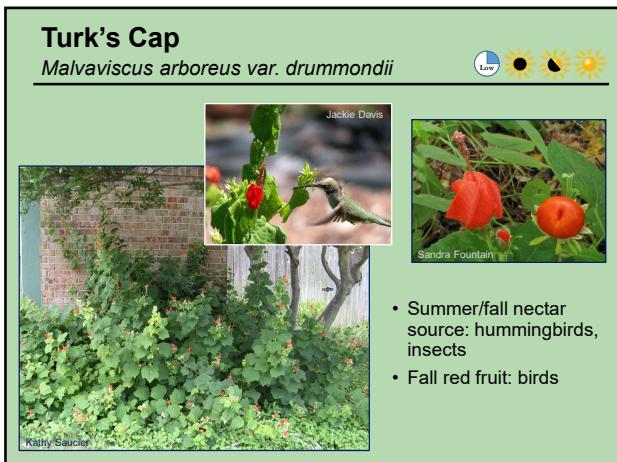
19

59

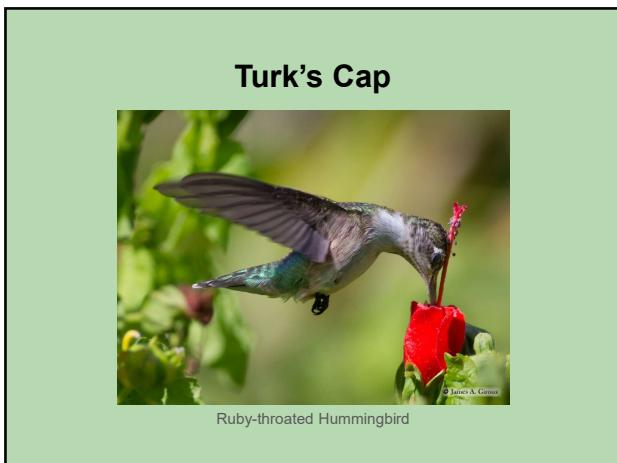
60



61



62



63

## Flowering Plants Review

1. Which flowering plant is a good fall nectar source providing invertebrates for birds?
2. Which flowering plant blooms spring through fall, providing nectar for hummingbirds and pollinators, and comes in several colors?
3. Which flowering plant is a fall/winter source of seeds?

---

---

---

---

---

---

64

## Grasses and Sedges

Grasses: plants with jointed stems, slender sheathing leaves, and flowers in spikelets

Sedges: grasslike plants with triangular stems

---

---

---

---

---

---

65

## Grasses and Sedges Value to Birds

- Ground level nesting
- Nest building materials
- Ground level shelter for some birds
- Food: grass seeds, sedge achenes, larval hosts

---

---

---

---

---

---

66

## Blue Grama

*Bouteloua gracilis*



- Ground level shelter
  - Nest building material
  - Supports insects
  - Winter seeds: seed-eating birds
  - Larval host: skippers



Elinor Crank wildflower.org

67

# **Bushy Bluestem**

*Andropogon glomeratus*



- Ground level shelter
  - Nest building material
  - Supports insects
  - Winter seeds: prairie chickens, field sparrows
  - Larval host: skippers, satyrs



68



Joseph A. Marcus



Carolyn Fannon  
[wildflowers.org](http://wildflowers.org)

68

## Indiangrass

#### *Sorghastrum nutans*



- Nesting habitat and shelter: bobwhite, dove, sparrows
  - Winter seeds: seed-eating birds
  - Larval and nectar host: Pepper-and-Salt Skipper butterfly



-janice lynn



Sam C. Strickland  
wildflower.org

69

**Inland Sea Oats**

*Chasmanthium latifolium*






- Nesting material
- Winter seeds: sparrows, juncos, cardinals
- Larval host: Pepper-and-Salt, Bells Roadside, Bronzed Roadside Skippers




70

---

---

---

---

---

---

---

---

**Little Bluestem**

*Schizachyrium scoparium*






- Nesting material; shelter for birds
- Nesting material/structures for native bees
- Fall/winter fluffy white seeds: sparrows and juncos
- Larval host: several butterflies




71

---

---

---

---

---

---

---

---

**Little Bluestem**



Sedge Wren

72

---

---

---

---

---

---

---

---

## **Sideoats Grama**

### *Bouteloua curtipendula*



- Ground level shelter
  - Nest building material
  - Nesting material/structures for native bees
  - Winter seeds: dove, quail, turkey
  - Larval host: several butterflies and moths



73

# Switchgrass

## *Panicum virgatum*



- Ground/mid-level shelter
  - Nest building material
  - Fall/winter seeds: dove, juncos, sparrows, longspurs, game birds
  - Small mammals eat seed and are food for predatory birds
  - Larval host: several butterflies



74

## **Grasses and Sedges Review**

1. What foods do grasses provide for birds?
  2. Name another service that most bunch grasses provide.

75

## Groundcovers

Low-growing or trailing perennials, vines, or shrubs

---



---



---



---



---



---



---



---

76

## Groundcovers – Value to Birds

- Ground level nesting and nest building materials
- Ground level shelter for some birds and invertebrates
- Nectar
- Food: seeds, fruits, larval hosts
- May be larval host plants

---



---



---



---



---



---



---



---

77

## Frogfruit

*Phyla nodiflora*



- Spring/summer nectar: pollinators
- Larval host: Phaon Crescent, Buckeye, White Peacock




---



---



---



---



---



---



---



---

78

## Pigeon Berry

*Rivina humilis*



Lee Page wildflower.org



athy Saucer



[Joseph A. Marcus wildflower.org](http://www.josephamarcuswildflower.org)

- Ground level shelter
  - Small mammals
  - Nectar source on and off during year
  - Bright red berries on and off during year: mockingbirds, thrashers, cardinals, thrushes

79

## Vines

Plants with a growth habit of trailing or climbing stems or runners

80

## Vines – Value to Birds

- Nesting and nest building materials
  - Shelter for birds and invertebrates
  - Nectar
  - Food: fruit/berries, larval host

81

## Coral Honeysuckle

### *Lonicera sempervirens*



- Evergreen shelter
  - Fall fruit red berry: finches, thrushes, robin
  - Spring/summer nectar: hummingbirds, house finches, insects
  - Larval host: Spring Azure, Snowberry Clearwing Moth



W. D. & Dolphia Branford  
[wildflower.org](http://wildflower.org)



Joseph A. Marcus  
wildflower.org



Ray Mathews wildflower.org

82



© James A. Giroux

83

## Crossvine

*Bignonia capreolata*



Joseph A. Marcus wildflower.org



13

- Semi-evergreen shelter
  - Spring nectar: hummingbirds, bees, butterflies

84

85

**Trumpet Creeper**  
*Campsis radicans*

- Summer/early fall nectar: hummingbirds, long tongued bees
- Larval host: Trumpet Vine Sphinx Moth, Plebian Sphinx

Sally & Andy Wasowski  
wildflower.org

Ray Mathews  
wildflower.org

Joseph A. Marcus  
wildflower.org

86

**Virginia Creeper**  
*Parthenocissus quinquefolia*

- Shelter and nesting for birds
- Fall/winter black, blue berry: chickadees, nuthatches, swallows, catbirds, finches
- Foliage color change: attracts fruit eaters
- Attracts leaf-cutting bees
- Larval host: Virginia Creeper Sphinx Moths

George H. Brusca  
wildflower.org

Sandra Fountain

Julie Makin  
wildflower.org

87

**Content Copyright  
Native Plant Society of Texas**

All rights reserved. Instructional materials may not be reproduced in whole or in part without express permission from the Native Plant Society of Texas (NPSOT).

---

---

---

---

---

---

---