



## Okaloosa County, FL Pine-Sandhill

### American Kestrel *Falco sparverius*

eol

Birds



Okaloosa County, Florida  
+ Pines/Sandhill

CARN  
Foodweb Role

Wingspan	51-61 cm
Adult Weight	80-165 g
Lifespan	5-11 yrs
Clutch; Brood	3-7 eggs; 1 brood/yr
Nest Type	Tree cavity

LC  
IUCN Redlist™

#### Geographic Range

Mississippi, Alabama, Georgia, South Carolina and Florida except the southernmost counties and the Keys

Image: Greg Lasley CC-BY-NC

This deck includes 39 species that interact in food webs in the iconic Southeastern longleaf pine ecosystem, with geographic ranges for each organism.

This card deck has been developed as part of the Okaloosa SCIENCE project, a collaborative STEM education grant for the Okaloosa County School District in Florida. The goals of this project include enhancing scientific literacy, connecting to place, and building community by engaging in hands-on activities.

Find this card deck and more at:  
[education.eol.org/species\\_cards](http://education.eol.org/species_cards)



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Title Image Credit: Randy Browning/USFWS CC-BY-SA

### Project Description

### Anise-scented Goldenrod *Solidago odora*

eol

Flowering Plants



Okaloosa County, Florida  
+ Pines/Sandhill

AUTO  
Foodweb Role

Height	60-120 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Yellow
Sunlight/Soil	Full-part sun; sandy

NE  
IUCN Redlist™

#### Geographic Range

Eastern North America: New Hampshire to Florida, west to Texas and Oklahoma

Image: Smithsonian Institution, Department of Botany CC-BY-NC-SA

### Common Name

Scientific Name

Taxon Group

#### Food Web Roles

DECO	Decomposer: Energy from dead material
AUTO	Autotroph: Energy from sun, water, CO <sub>2</sub>
HERB	Herbivore: Energy from plants
OMNI	Omnivore: Energy from plants, animals
CARN	Carnivore: Energy from animals
APEX	Apex Predator: Top predator
DETR	Detritivore: Energy from dead vegetation
SANG	Sanguinivore: Energy from blood
MULT	Multiple: Energy from multiple sources

Habitat (where species is found)  
+ (indicates species is also found in other habitats)

#### Species Conservation Status

##### IUCN Redlist™

International Union for Conservation of Nature

LC	Least Concern
DD	Data Deficient
NT	Near Threatened
EN	Endangered

NE Not Evaluated

VU	Vulnerable
CR	Critically Endangered
EW	Extinct in Wild
EX	Extinct

eol

Insects

### Antlions *Myrmeleontidae*



Okaloosa County, Florida  
+ Pines/Sandhill

CARN  
Foodweb Role

Adult Body Length	2-4 cm
Development	Complete
Adult Lifespan	20-45 days
Number of Eggs	20 or more
Wings	2 pairs

NE  
IUCN Redlist™

#### Geographic Range

Occur worldwide, most commonly in temperate and tropical zones

Image: Armin H. CC-BY-NC



## Bachman's Sparrow

*Aimophila aestivalis*

**eol**  
Birds



**OMNI**  
Foodweb Role  
Okaloosa County, Florida  
+ Pines/Sandhill

Wingspan	5.5-6.6 cm
Adult Weight	18-22 g
Lifespan	3 yrs
Clutch; Brood	2-5 eggs; 2 broods/yr
Nest Type	Ground burrow

**IUCN Redlist™** NT

**Geographic Range**  
Southeastern U.S. north to Indiana-Michigan border, west to Arkansas-Oklahoma border, but most populations occur in Florida and along the Gulf Coast

Image: Greg Lasley CC-BY-NC

## Common Opossum

*Didelphis virginiana*

**eol**  
Mammals



**OMNI**  
Foodweb Role  
Okaloosa County, Florida  
+ Pines/Sandhill

Adult Length	33-55 m
Adult Weight	1.9-6 kg
Lifespan	1.5 - 2 yrs
Offspring; Litters	4-25; 1-3/yr
Female Maturity	8 months

**IUCN Redlist™** LC

**Geographic Range**  
Costa Rica to Southern Ontario, Canada; their range continues to expand. In the US they are found east of the Rocky Mountains and on the West Coast

Image: 1999 California Academy of Sciences CC-BY-NC-SA

## Coyote

*Canis latrans*

**eol**  
Mammals



**CARN**  
Foodweb Role  
Okaloosa County, Florida  
+ Pines/Sandhill

Adult Length	75-100 cm
Adult Weight	7-21 kg
Lifespan	14.5 yrs (avg)
Offspring; Litters	1-19; 1/yr
Female Maturity	9-10 months

**IUCN Redlist™** LC

**Geographic Range**  
North America and Central America

Image: Christopher Bruno CC-BY-SA

## Creeping Bluestem

*\*Scientific name*

**eol**  
Flowering Plants



**AUTO**  
Foodweb Role  
Okaloosa County, Florida  
+ Pines/Sandhill

Height	91.44 cm
Growth Form	Grass
Life Cycle	Perennial
Flower Color	Yellow
Sunlight/Soil	Sun/shade; variable

**IUCN Redlist™** NE

**Geographic Range**  
Eastern North America

\**Schizachyrium scoparium*  
Image: Mikael Behrens CC-BY-NC-NC

## Dwarf Huckleberry

*Gaylussacia orocola*

**eol**  
Flowering Plants



**AUTO**  
Foodweb Role  
Okaloosa County, Florida  
+ Pines/Sandhill

Height	30-75 cm
Growth Form	Shrub
Leaf Duration	Deciduous
Flower Color	White
Sunlight/Soil	Part-shade; sandy

**IUCN Redlist™** NE

**Geographic Range**  
East coast of North America

Image: Mary Keim CC-BY-NC-SA

## Earleaf Greenbrier

*Smilax auriculata*

**eol**  
Flowering Plants



**AUTO**  
Foodweb Role  
Okaloosa County, Florida  
+ Pines/Sandhill

Height	7-9 m
Growth Form	Vine
Life Cycle	Perennial
Flower Color	Yellow
Sunlight/Soil	Sun/shade; sandy

**IUCN Redlist™** NE

**Geographic Range**  
Louisiana, Mississippi, Alabama, Georgia, Florida, South Carolina, North Carolina, West Indies (Bahamas)

Image: Mary Keim CC-BY-NC-SA



## Eastern Indigo Snake

*Drymarchon couperi*

eol Reptiles



**CARN**

 Okaloosa County, Florida  
+ Pines/Sandhill 

**Snout-vent Length** 152-213 cm **Adult Weight** 14-30 g **Lifespan** 17 yrs **Number of Eggs** 4-12/r **Activity** Diurnal

**IUCN Redlist™** LC

**Geographic Range**  
Southern Georgia and peninsular Florida, with localized populations in the Florida Panhandle

Image: GTM NERR CC-BY-NC

## Florida Black Bear

*Ursus americanus floridanus*

eol Mammals



**OMNI**

 Okaloosa County, Florida  
+ Pines/Sandhill 

**Body Length** 1.5-1.8 m **Adult Weight** 60-160 kg **Lifespan** 10 yrs (avg) **Offspring/Litters** 1-4; 1/yr **Female Maturity** 3-4 yrs

**IUCN Redlist™** NE

**Geographic Range**  
Subspecies native to Florida peninsula and panhandle; range reduced to six areas: Eglin, Ocala, Osceola, St. Johns, Big Cypress, and Apalachicola

Image: Florida FWCC, Public Domain

## Florida Harvester Ant

*Pogonomyrmex badius*

eol Insects



**HERB**

 Okaloosa County, Florida  
+ Pines/Sandhill 

**Adult Body Length** 0.6-1.0 cm **Development** Complete **Adult Lifespan** 2-6 months **Number of Eggs** 1,000 eggs/day **Wings** 2-pair (queen, mates)

**IUCN Redlist™** NE

**Geographic Range**  
North Carolina south through Florida, west into Mississippi and Louisiana

Image: Bob Peterson CC-BY-SA

## Gopher Apple

*Licania michauxii*

eol Flowering Plants



**AUTO**

 Okaloosa County, Florida  
+ Pines/Sandhill 

**Height** 15-30 cm **Growth Form** Shrub **Leaf Duration** Evergreen **Flower Color** White **Sunlight/Soil** Sun; dry, sandy

**IUCN Redlist™** NE

**Geographic Range**  
Louisiana, Mississippi, Alabama, Georgia, Florida and South Carolina

Image: Mary Keim CC-BY-NC-SA

## Gopher Frog

*Lithobates capito*

eol Amphibians



**CARN**

 Okaloosa County, Florida  
+ Pines/Sandhill 

**Snout-vent Length** 6-9 cm **Adult Weight** 47-151 g **Lifespan** 6 yrs **Number of Eggs** 1,200-2,500/yr **Activity** Nocturnal

**IUCN Redlist™** NT

**Geographic Range**  
North Carolina, Florida, Alabama, Georgia, Tennessee

Image: 2011 Todd Pierson CC-BY-NC-SA

## Gopher Tortoise

*Gopherus polyphemus*

eol Reptiles



**HERB**

 Okaloosa County, Florida  
+ Pines/Sandhill 

**Snout-vent Length** 17-24 cm **Adult Weight** 5,500 g **Lifespan** 60 yrs **Number of Eggs** 3-15/yr **Activity** Diurnal

**IUCN Redlist™** VU

**Geographic Range**  
Alabama, South Carolina, Louisiana, Mississippi, Georgia, with the majority of the remaining population in Florida

Image: http://www.birdphotos.com CC-BY



## Gopherweed

*Baptisia lanceolata*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	60-90 cm
Growth Form	Herbaceous
Life Cycle	Perennial
Flower Color	Yellow
Sunlight/Soil	Full/part sun; sandy

**NE** IUCN Redlist™

**Geographic Range**  
Alabama, Florida, Georgia and South Carolina

Image: Smithsonian Institution, Department of Botany CC-BY-NC-SA

## Grasshoppers

*Acrididae*

eol  
Insects



**HERB**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Adult Length	1.5-3 cm
Development	Incomplete
Lifespan	1 yr
Number of Eggs	10-60/yr
Wings	2 pair

**NE** IUCN Redlist™

**Geographic Range**  
Worldwide

Image: Magdy Mohamed Salem CC-BY-NC-SA

## Humans

*Homo sapiens*

eol  
Mammals



**APEX**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Body Length	147-181 cm (avg)
Adult Weight	Variable
Lifespan	32-84 yrs (avg)
Offspring/Litters	1 or more; variable
Female Maturity	8-17 yrs (avg)

**LC** IUCN Redlist™

**Geographic Range**  
Worldwide

Image: Steve Evans CC-BY-NC

## Littleleaf Sensitive-briar

*Mimosa microphylla*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	30-90 cm
Growth Form	Vine
Life Cycle	Perennial
Flower Color	Purple/pink
Sunlight/Soil	Sun; Rocky/sandy

**NE** IUCN Redlist™

**Geographic Range**  
Florida and Georgia

Image: Matthew Herron CC-BY-NC

## Longleaf Pine

*Pinus palustris*

eol  
Conifers



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	18-25 m
Growth Form	Tree
Leaf Duration	Evergreen
Flower Color	Yellow
Sunlight/Soil	Sun; dry, sandy

**EN** IUCN Redlist™

**Geographic Range**  
Southeastern USA, from Virginia to eastern Texas in the Atlantic and Gulf Coastal Plains

Image: bobistraveling CC-BY

## Narrowleaf Silkggrass

*Pityopsis graminifolia*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	45-91 cm
Growth Form	Grass
Life Cycle	Perennial
Flower Color	Yellow
Sunlight/Soil	Part shade; sandy

**NE** IUCN Redlist™

**Geographic Range**  
Delaware to Ohio and south to Texas and Florida

Image: Mary Keim CC-BY-NC-SA



**Nine-banded Armadillo**  
*Dasypus novemcinctus*

eol  
Mammals



**OMNI**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Adult Length	61.5-80 cm	LC
Adult Weight	3.6-7.7 kg	IUCN Redlist™
Lifespan	7-20 yrs	
Offspring	4 identical/yr	
Female Maturity	1-2 yrs	

**Geographic Range**  
North America, Central America and South America

Image: Jeff Whitlock CC-BY-NC-SA

**Pinesnake**  
*Pituophis melanoleucus*

eol  
Reptiles



**CARN**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Snout-vent Length	91-254 cm	LC
Adult Weight	2 kg	IUCN Redlist™
Lifespan	4.5- 22.5 yrs	
Number of Eggs	3-24/yr	
Activity	Diurnal	

**Geographic Range**  
Louisiana, Florida, Kentucky, Virginia, New Jersey

Image: J. D. Willson CC-BY-NC-SA

**Red-cockaded Woodpecker**  
*Picoides borealis*

eol  
Birds



**OMNI**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Wingspan	35-38 cm	NT
Adult Weight	42-52 g	IUCN Redlist™
Lifespan	14-16 yrs	
Clutch; Brood	1-5 eggs; 1 brood/yr	
Nest Type	Tree cavity	

**Geographic Range**  
Southeastern United States

Image: BJ Stacey CC-BY-NC

**Sand Live Oak**  
*Quercus geminata*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	15-28 m	NE
Growth Form	Tree	IUCN Redlist™
Leaf Duration	Evergreen	
Flower Color	Green	
Sunlight/Soil	Full-part sun; sandy	

**Geographic Range**  
Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina and South Carolina

Image: Homer Edward Price CC-BY

**Sand Pine**  
*Pinus clausa*

eol  
Conifers



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	7-12 m	LC
Growth Form	Tree	IUCN Redlist™
Leaf Duration	Evergreen	
Flower Color	Yellow	
Sunlight/Soil	Full sun; sandy	

**Geographic Range**  
Gulf Coast of Florida and Alabama

Image: Sharp99 CC-BY-NC-SA

**Sand Post Oak**  
*Quercus margarettae*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	12-15 m	NE
Growth Form	Tree	IUCN Redlist™
Leaf Duration	Deciduous	
Flower Color	Light green to red	
Sunlight/Soil	Full-part sun; sandy	

**Geographic Range**  
Alabama, Arkansas, Florida, Georgia, Louisiana, Mississippi, Missouri, North Carolina, Oklahoma, South Carolina, Texas, Virginia

Image: Hahn, Marlene CC-BY-NC-SA



## Saw Palmetto

*Serenoa repens*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

**Height** 152-304 cm  
**Growth Type** Shrub  
**Leaf Duration** Evergreen  
**Flower Color** Yellow  
**Sunlight/Soil** Full-part sun; sandy

**NE** IUCN Redlist™

**Geographic Range**  
Alabama, Florida, Georgia, Louisiana, Mississippi, South Carolina

Image: oakum CC-BY-NC-SA

## Sidebeak Pencilflower

*Stylosanthes biflora*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

**Height** 1-3 m  
**Growth Form** Herbaceous  
**Life Cycle** Perennial  
**Flower Color** Yellow  
**Sunlight/Soil** Full-part sun; dry

**NE** IUCN Redlist™

**Geographic Range**  
Eastern U.S. from New York south to Florida, west to Texas and Kansas

Image: Fritzflohreynolds CC-BY-SA

## Southeastern Pocket Gopher

*Geomys pinetis*

eol  
Mammals



**HERB**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

**Adult Length** 26.1-29.5 cm  
**Adult Weight** 45-390 g  
**Lifespan** 2 yrs  
**Offspring; Litters** 1-3; 1/yr  
**Female Maturity** 4-6 months

**LC** IUCN Redlist™

**Geographic Range**  
Alabama, Georgia, and Florida

Image: Smithsonian Institution, Division of Mammals CC-BY-NC-SA

## Southern Flying Squirrel

*Glaucomys volans*

eol  
Mammals



**OMNI**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

**Adult Length** 21.2-25.7 cm  
**Adult Weight** 46-80 g  
**Lifespan** 6-10 yrs  
**Offspring; Litters** 1-6; 2/yr  
**Female Maturity** 12 months

**LC** IUCN Redlist™

**Geographic Range**  
North America and Central America

Image: Phil Myers CC-BY-NC-SA

## Southern Yellowjacket

*Vespa squamosa*

eol  
Insects



**OMNI**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

**Adult Body Length** 1.25 cm (workers)  
**Development** Complete  
**Adult Lifespan** <1 yr (workers)  
**Number of Eggs** 4,000-5,000/yr  
**Wings** 2 pairs

**NE** IUCN Redlist™

**Geographic Range**  
North America and Central America

Image: Sean McCann CC-BY-NC-SA

## Summer Farewell

*Dalea pinnata*

eol  
Flowering Plants



**AUTO**  
Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

**Height** 30-90 cm  
**Growth Form** Herbaceous  
**Life Cycle** Perennial  
**Flower Color** White  
**Sunlight/Soil** Full-part sun; sandy

**NE** IUCN Redlist™

**Geographic Range**  
Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina

Image: Mary Keim CC-BY-NC-SA



## Switchgrass

*Panicum virgatum*

eol  
Flowering Plants



**AUTO**

Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	60-152 cm	NE
Growth form	Grass	
Life Cycle	Perennial	
Flower Color	Yellow	
Sunlight/Soil	Sun/shade; variable	IUCN Redlist™

**Geographic Range**  
Found in most of the United States, excluding the far west states

Image: John Hiltz CC-BY-NC

## Turkey Oak

*Quercus laevis*

eol  
Flowering Plants



**AUTO**

Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	6-15 m	NE
Growth Form	Tree	
Leaf Duration	Deciduous	
Seed Color	Green	
Sunlight/Soil	Full Sun; Dry, sandy	IUCN Redlist™

**Geographic Range**  
Native from Virginia south to central Florida, west to southeastern Louisiana

Image: Kari A.Segraves CC-BY-NC-SA

## White-tailed Deer

*Odocoileus virginianus*

eol  
Mammals



**HERB**

Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Adult Length	160-220 cm	NE
Adult Weight	57-137 kg	
Lifespan	2-10 yrs	
Offspring; Litters	1-3; 1/yr	IUCN Redlist™
Female Maturity	2 yrs	

**Geographic Range**  
North America, Central America and South America

Image: Oberheuer, John

## Wiregrass

*Aristida stricta*

eol  
Flowering Plants



**AUTO**

Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Height	30-90 cm	NE
Growth form	Grass	
Life Cycle	Perennial	
Flower Color	Yellow	
Sunlight/Soil	Sun-shade; sandy	IUCN Redlist™

**Geographic Range**  
Atlantic coastal plain from southeastern North Carolina to southern Florida, and westward to Mississippi

Image: Kari A.Segraves CC-BY-NC-SA

## Yellow Fever Mosquito

*Aedes aegypti*

eol  
Insects



**OMNI**

Okaloosa County, Florida  
+ Pines/Sandhill Foodweb Role

Adult Length	0.04 -0.07 cm	NE
Development	Complete	
Lifespan	14-30 days	
Number of Eggs	100-200/1-5 batches	IUCN Redlist™
Wings	1 pair	

**Geographic Range**  
Originated in Africa, now found worldwide

Image: مكتبة صور الصحة العالمية

**eol species cards**

**Adaptation:** A physical characteristic or behavior that helps an organism survive in its environment

**Brood/Litter:** Group of young produced at one time

**Carapace:** Shell of a turtle or head and thorax of arthropods

**Clutch Size:** Number of eggs laid in a nest at one time

**Complete Metamorphosis:** Some insects have a four stage life cycle: egg, larva, pupa, adult

**Crepuscular:** Active at dawn and dusk

**Diurnal:** Active during the day

**Vocabulary**



**Habitat:** The area an organism lives and can find its resources

**Growth Form:** Classification of plants as trees, shrubs, herbaceous, and grasses

**Incomplete Metamorphosis:** Some insects have a three stage life cycle: eggs, nymph, adult

**Molt:** The act of shedding exoskeleton, skin or feathers as an animal grows

**Snout-vent Length:** In amphibians and reptiles, the length from tip of nose to tail base (cloaca)

**Standard Length:** In fishes, length from tip of snout to end of last vertebra

## Vocabulary

