

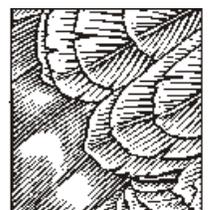
NORTHERN CARDINAL

Cardinalis cardinalis



Range

Bright red with a pointed head crest and black bib, male cardinals are always a welcome sight at bird feeders. Cardinals are year-round residents in the eastern two-thirds of Texas. They prefer thick underbrush for nesting. Cardinals have been expanding their range northward.



Birds

NORTHERN CARDINAL

Cardinalis cardinalis



Appearance

Length: 9 inches
Wing span: 12 inches
Weight: 1 1/4 ounce

Male northern cardinals are bright red medium sized birds with head crests, black bibs and masks and cone-shaped reddish bills. Females are tannish-brown with reddish wings.

Behavior

Habit: Diurnal granivore
Diet: Seeds, fruit and insects
Breeding Territory: 1 pair per 4 acres

Both sexes in cardinals sing almost year-round. Common calls include "cheer cheer cheer", "whit-chew whit-chew whit-chew" and "purty purty purty". Cardinals are easily attracted to bird feeders, especially those containing sunflower seeds. A cardinal's nest consists of a tightly woven cup of roots, stems and twigs lined with fine grass and hair.

Habitat

Northern cardinals are found throughout the eastern half of the U.S. and most of Mexico. They have recently been expanding their ranges north and southwest.



Cardinals & Man

Cardinals are colorful, tolerant of people, have pleasant calls, and are easily attracted to bird feeders. That has made them a favorite of backyard birdwatchers all over the eastern half of the U.S. Their bright plumage brings color to our yards during the winter when many other species have flown south.

Life Cycle

Sexual maturity: Less than a year

Mating season: Spring and summer. Cardinals usually nest 2 or 3 times a year

Gestation: Eggs hatch in 12-13 days, young fledge 9-10 days after that.

No. of young: 2-5 usually 3-4. Eggs are 1 inch long and grayish or bluish-white with brown, purple or gray blotches.

Legend Has It ...

The brightly-colored male inspired the name for this bird, reminding people of cardinals in the Catholic Church who wore bright, red robes. Seven states have chosen the cardinal as their state bird: Illinois, Indiana, Kentucky, North Carolina, Ohio, Virginia and West Virginia.

Now You Know!

- ▶ Cardinals may form winter flocks of 60-70 birds.
- ▶ Males care for the first **brood** while the females are incubating a second **clutch** in a new nest.
- ▶ Females usually sing after males establish territory but before nesting starts.
- ▶ Females dull colors help camouflage them from predators.
- ▶ Males bright colors help attract a mate.
- ▶ Males are duller in winter.
- ▶ Male cardinals vigorously defend their territory. They have been known to attack their reflections in mirrors, windows and chrome. Sometimes they will even attack small red objects they mistake for other males.
- ▶ Most small birds only live for a year or two. One cardinal was caught almost 16 years after it was initially banded.

WOOD DUCK

Aix sponsa

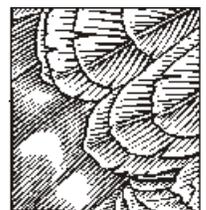


©Steve Lightfoot



Range

Wood ducks are some of the most beautiful **waterfowl** in the U.S. Over-harvesting and the loss of habitat in the early part of the century threatened them with extinction. Good management practices and thousands of wood duck nest boxes have helped them make a dramatic recovery!



Birds

WOOD DUCK



Aix sponsa

Appearance

Length: 19 inches

Wing span: 29 inches

Weight: 1¼ pounds

Male wood ducks have green heads and crests streaked with white, red eyes and base of bills, purple breasts, white throats, beige sides and bluish backs. Females are duller with bluish backs and a white teardrop shaped eye patch.

Behavior

Habit: Diurnal, precocial, omnivores

Diet: Seeds, acorns, berries, grains and insects

Breeding territory: 1 pair per 24 acres

Wood ducks choose old woodpecker holes or other natural cavities near water for their nests. Courtship and pair formation takes place in the fall.

Habitat

In wooded swamps and bottom land forests in the eastern and western U.S. and Canada and western Mexico. Year round residents in east Texas but northern populations migrate south for the winter.

Wood Ducks & Man

Humans almost caused the extinction of wood ducks in the early 1900's through habitat destruction and over harvesting for food and feathers. But concerned citizens got together to save wood ducks. They created hunting seasons and bag limits and built and maintained thousands of nest boxes for them.

Life Cycle

Sexual maturity: One year

Mating season: February-May

Gestation: Eggs hatch in 28-37 days. The young leave the nest 1 to 2 days after that.

No. of young: 6-15 usually 10-15. Eggs are 2 inches long and creamy white.

Now You Know!

- Older male wood ducks pair up earlier in the season than yearling males.
- Female wood ducks usually return to nest within a 2 mile of where they were born.
- Baby wood ducks are **precocial**, which means that they are covered with down, can swim and find their own food soon after they are born. They can climb as high as 8 feet to get out of the nest cavity that they were born in using a special tooth on their beak! They have been known to safely jump 50 feet to the ground when they leave their nest!
- Wood ducks prefer nesting over water so that the babies have a soft landing when they leave the nest.



RED-EARED SLIDERS

Trachemys scripta elegans



Range

Red-eared sliders are Texas's most common **aquatic** turtles. These turtles get their name from a broad red stripe behind their eye and their habit of sliding off rocks and logs when startled. Older turtles are often covered with a thick coat of algae.



Reptiles

RED-EARED SLIDERS

Trachemys scripta elegans



Appearance

Length: 5 to 11 inches

Weight: Varies

A medium sized turtle with a dark green oval shell, marked with yellow in younger turtles, green legs with thin yellow stripes and a green head with a red stripe behind the eye.

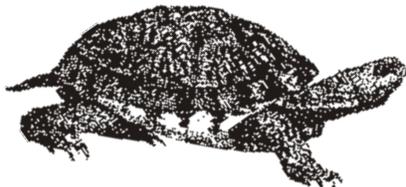
Behavior

Habit: Aquatic, cold-blooded, omnivore

Diet: Red-eared sliders feed on aquatic plants, small fish and decaying material.

Lifespan: Some live more than 30 years.

Sliders are **cold-blooded** and spend much of the day sunning on rocks and logs. The young turtles are eaten by a variety of **predators** including birds, racoons, alligators and large fish. Sliders bury themselves in loose soil or mud during the winter to escape the cold.



Habitat

Red-eared sliders are found in most permanent slow-moving water sources with mud bottoms in the eastern three quarters of the state. When population numbers get high, these turtles move across land to other bodies of water in search of food and space.

Red-eared Sliders & Man

Baby red-eared sliders were once very popular as children's pets until it was discovered that some of them carried the disease, **salmonella**. It is now illegal to sell sliders less than 4 inches in diameter. Most wild animals make very poor pets and are best observed in their native **habitat**.

Life Cycle

Sexual maturity: 5 years

Mating season: March through July. Females produce up to 3 clutches of eggs.

Gestation: Eggs hatch in 60-75 days or overwinter and hatch in the spring.

No. of young: Four to 23 from oval, white eggs with leathery shells.

Legend Has It ...

For many American Indians tribes, the land on which they lived was the back of a huge "mother turtle," floating in a vast sea. Turtles were considered sacred and never killed. The thirteen pieces on some turtle's shells are thought to represent the thirteen moons of the year.

Now You Know!

- › Sliders enjoy laying in the sun for hours at a time. If there are not enough rocks or logs for all of them they will often stack themselves 2 or 3 layers deep!
- › Female turtles lay their eggs in holes that they dig in the ground and leave. Young turtles are born having to take care of themselves.
- › A turtle's shell is actually made up of its ribs joined together and covered with a thin layer of skin. Each of the ribs is made of jigsaw-like sections called **scutes** which grow at the edges. This allows the turtle to increase in size without outgrowing its shell.
- › Mature males have long toenails on their front feet that they use when courting females. The males swim backwards in front of females and fan water over their faces.
- › Sliders have poor hearing but are very sensitive to vibrations. This makes it hard to sneak up on them.
- › Their name, slider, comes from the fact that they are quick to slide off of rocks, logs or the banks if danger threatens.

EASTERN FOX SQUIRREL

Sciurus niger



Range

Fox squirrels are large tree squirrels. Due to their ability to adapt to a wide range of forest habitats they are Texas' most common squirrel. Their greatest numbers occur in open upland forest with a mixture of oak and nut trees. Fox squirrels are an important game animal but their fondness for corn and pecans often cause them to be considered pests by farmers.



Mammals

EASTERN FOX SQUIRREL

Sciurus niger



Appearance

Length: 21 inches

Weight: 1½-2 lbs.



Behavior

Habit: Diurnal, arboreal, crepuscular, omnivore

Diet: Acorns and other **mast**, buds, fruit, fungi, insects, amphibians and the inner bark of trees.

Home range: 8-32 acres

Lifespan: Up to 15 years

Squirrels are usually active early in the morning and late in the afternoon. Fox squirrels nest in holes in trees or build leaf and twig nests. Squirrels bury nuts for winter food. They relocate the nuts by smell.

Habitat

Fox squirrels prefer **upland hardwood** forests containing nut producing trees. They're found in the forests and along the rivers and streams in the eastern two-thirds of Texas and the eastern half of the United States.

Now You Know!

- › Squirrels find only a portion of the nuts they bury and are important in planting many species of nut trees.
- › A single squirrel can bury several thousand pecans over the course of 3 months.
- › Fox squirrels like the open woods created by man while their cousin, the gray squirrel, prefers the thick woods found in East Texas and along river bottoms.
- › Fox squirrels got their name from their gray and red fur coat that resemble that of a gray fox.

Life Cycle

Sexual maturity: 10 to 11 months

Mating season: Fox squirrels usually have 2 breeding seasons and litters a year. Breeding season peaks in January and February and again in May and June.

Gestation: 42-49 days The young are **weaned** in 2 months and on their own in 3 months.

No. of young: 3 to 4 young are born naked, blind and helpless. They remain in the nest 7 to 8 weeks.

More Fun Facts!

Squirrels' long bushy tails are used for a variety of purposes. They can be wrapped around a squirrels face to keep them warm, used as an aid in balancing when they run along tree limbs, or spread and used as a parachute if the squirrel should fall. With a little practice, watching a squirrels tail movements gives you a clue to their mood. Quick jerks of the tail signal that they are nervous or upset.

Fox Squirrels & Man

Fox squirrels are often found in city parks containing large oak trees or around bird feeders at peoples homes.

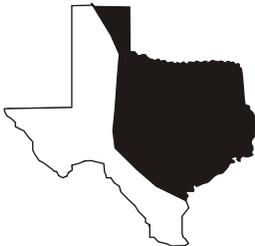
Fox squirrels are an important game animal in many states including Texas. Proper forest management techniques can help squirrel populations. These include leaving older nut producing trees that are important for food and den sites. Corridors of trees between unlogged hardwood forests allow squirrels safe pathways to food and mates.

RED-BELLIED WOODPECKER

Melanerpes carolinus

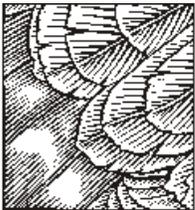


©Bill Reaves



Range

Red-bellied and other woodpeckers are important nest providers for many other species. The holes they excavate in dead trees, poles and fence posts are used by bluebirds, wrens, chickadees and titmice to name but a few. It is important for many bird and animal species that we leave dead trees whenever it's safe to do so!



Birds

RED-BELLIED WOODPECKER



Melanerpes carolinus

Appearance

Length: 10 inches

Wing span: 16 inches

Weight: 2 3/4 ounces

Male red-bellied woodpeckers are medium sized birds that have red caps and hind necks, black and white barred backs and tails. Their belly feathers are off white with a reddish tinge. Females are similar to males but lack the red hind neck.

Behavior

Habit: Diurnal, cavity building, altricial, omnivores

Diet: Insects, nuts, fruits and berries

Breeding territory: 1 pair to 14 acres

Courtship between red-bellies includes mutual tapping and v-shaped flights. Most red-bellies remain year round. In urban areas their nests are often taken over by starlings after they have finished building them. They excavate a new nest hole each time they renest during the season.



Habitat

Red-bellied woodpeckers are found in eastern Texas and U.S. They prefer forests, swamps or wooded suburban habitats.

Now You Know!

- › It takes only 7 to 10 days for a pair of red-bellied woodpeckers to carve a home in a dead tree.
- › Red-bellied woodpeckers will occasionally use bird houses.
- › Red-bellied woodpeckers have been known to store food in hollow trees.
- › You can attract red-bellied woodpeckers to bird feeders by providing them with peanuts.

Life Cycle

Sexual maturity: Less than a year

Mating season: Spring and summer.

Red-bellied woodpeckers usually nest 2 or 3 times during a season.

Gestation: Eggs hatch in 12-14 days, the young fledge 24-27 days after that.

No. of young: 3-8, usually 4-5. Eggs are 1 inch long and white.

More Fun Facts!

The woodpeckers bill is a multi-use tool for food gathering and even more unusual, to get their courtship message out. Male woodpeckers do not sing well, so they use their heads, literally. In the spring, woodpeckers are especially attracted to any sound that resonates, including aluminum shed roofs and even the hoods of cars, much to the annoyance of their human owners.

Woodpeckers & Man

Humans feel that dead trees are dangerous and remove them. This reduces the number of places that woodpeckers, and all the other wildlife that count on them for homes, can live. Woodpeckers sometimes use telephone poles in the place of dead trees. Occasionally they will try to excavate a nest through the wooden siding of someone's home, or use the metal siding to increase the noise of their tapping to attract a mate.

PAINTED BUNTING

Passerina ciris

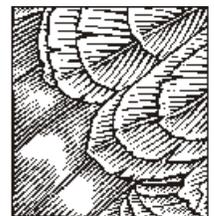


©Mark W. Lockwood



Range

Painted buntings are common in many parts of Texas. Their habit of remaining in deep brush except when the male sings early in the morning often cause them to be overlooked. When the brightly colored male is noticed, he is often mistakenly thought to be an escaped tropical bird.



Birds

PAINTED BUNTING



Passerina ciris

Appearance

Length: 6 inches

Wing span: 9 inches

Weight: ½ ounce

Male painted buntings have red breasts and rumps, green backs, blue heads and dark wings. Females are greenish above and buff below.

Behavior

Habit: Diurnal, altricial, omnivore

Diet: Seeds and insects

Breeding territory: 1 pair per 30 acres

Male painted buntings vigorously defend their territory against other males occasionally fighting them to the death.

Habitat

Painted buntings are common summer residents in much of Texas, and the southeastern U.S. and Mexico. They prefer the heavier cover found around streams, forest edges and other areas with dense under story. In the fall they migrate south to Mexico, Panama and a number of Caribbean islands.

Now You Know!

- No other United States bird has red underparts and a blue head.
- Although primarily seed eaters, painted buntings rarely come to backyard feeders because they dislike being so far from cover.
- Even though painted buntings are fairly common birds in much of Texas they are rarely seen.
- When they are spotted, people often believe that they are an escaped tropical bird.
- Around sunup, males will briefly perch and sing on top of the brush they live in.

Life Cycle

Sexual maturity: Less than one year

Mating season: Spring and summer
Painted buntings usually nest 2 to 4 times a season.

Gestation: Eggs hatch in 11-12 days, young fledge 12-14 days after that.

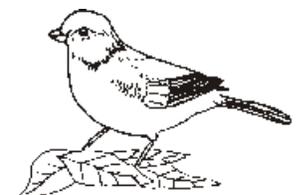
No. of young: 3-5 usually 3-4. Pale bluish or grayish white eggs are mottled with reddish-brown spots towards the large end. The eggs are 8/10th of an inch long.

Legend Has It ...

Painted buntings are part of a genus including the gorgeous blue indigo and lazuli buntings. The Greek myth of Scylla who turned into the bird keiris, inspired the name ciris for the beautiful painted bunting. In several of his plays, Shakespeare referred to buntings as worthless birds, reflecting the attitude of the time. Despite this temporary reputation, buntings were prized as caged birds, served at banquets in Elizabethan times, and sport complimentary names meaning "charming" and "delightful."

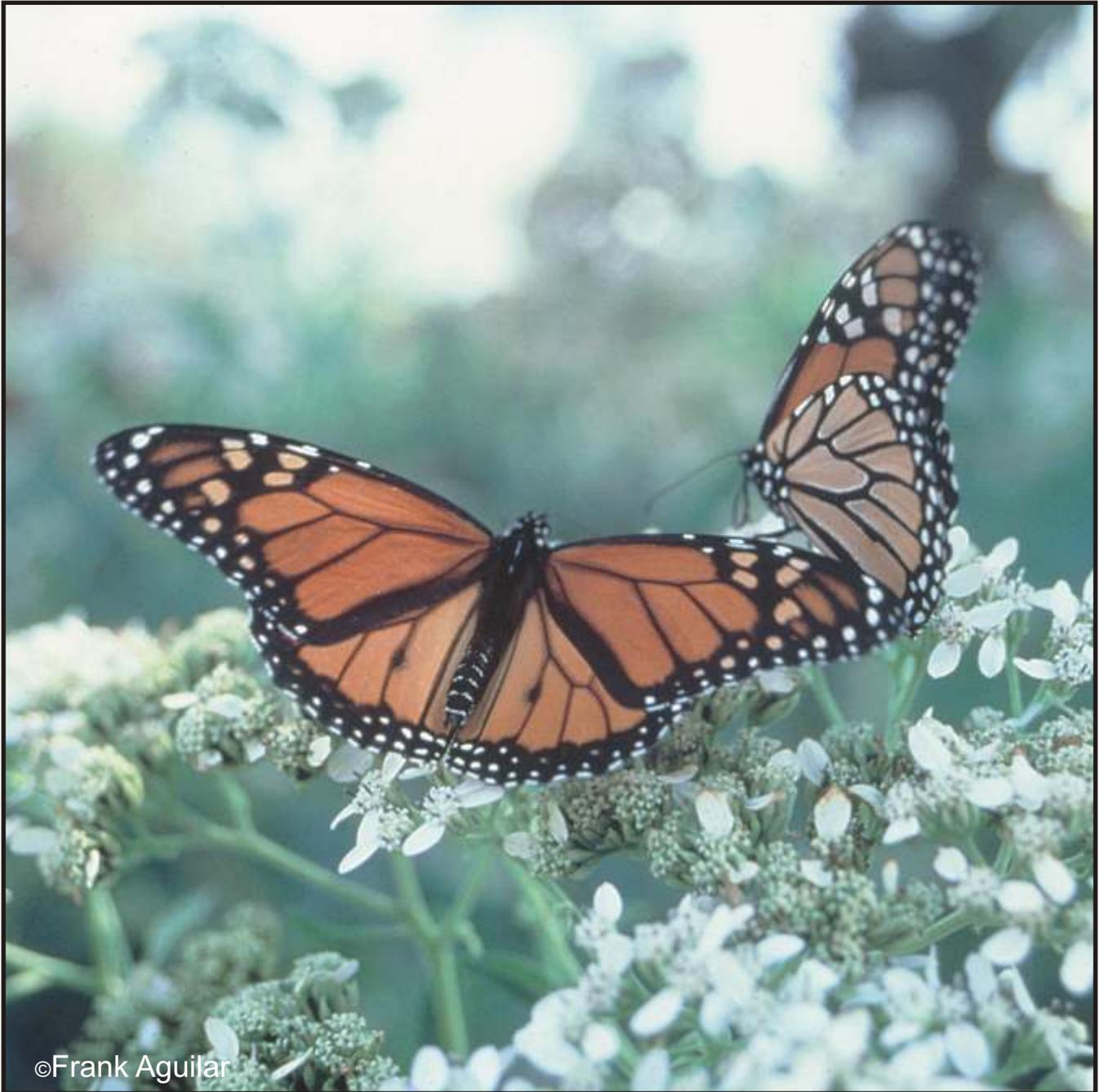
Painted Buntings & Man

Male painted buntings have been used as caged birds in some areas due to their bright colors and beautiful voice.



MONARCH

Danaus plexippus



©Frank Aguilar



Range

Monarchs are the only butterflies known to make long distance migrations. They are members of a tropical family that cannot survive cold winters. North American monarchs migrate south in the fall to California, Mexico or Florida. On the way north in the spring they lay eggs. It's the young produced by those and the next generation's eggs that return all the way north and start south again.



Insects

MONARCH

Danaus plexippus



Appearance

Length: 12 inches

Wingspan: 3½-4 inches

Weight: 17/1000 of an ounce

Adult monarch butterflies are orange above with black veins and white spotted wing borders. Males have a black scent patch on a vein across the middle of the hind wing.

Behavior

Habit: Migratory, diurnal, nectar feeder

Diet: Adults feed on flower nectar. Caterpillars feed on plant leaves, preferring milkweeds and dogbanes.

Lifespan: Up to 10 months

Monarchs migrate north through Texas in March and April laying eggs on milkweed plants as they pass through. Most of the young produced will continue the journey north when mature. The fall migration of monarchs starts in September but peaks with the passing of cold fronts in October.

Habitat

Monarchs are found all over Texas, the U.S., southern Canada and Mexico to central America. There are also breeding populations in Hawaii and Australia. Monarchs occur wherever milkweeds grow.



Now You Know!

- › Monarchs lay their eggs on milkweed plants.
- › Their caterpillars absorb the poisons produced by the plant and become poisonous themselves.
- › Birds that try to eat monarchs or their caterpillars throw up! They quickly learn that monarchs are not good to eat!
- › Other butterflies, such as Queens and Viceroy's, copy the colors of monarchs so that birds won't eat them either.

Life Cycle

Sexual maturity: Monarchs are able to mate and reproduce within a week of leaving their **chrysalis**. A complete life cycle can take as little as 4 to 5 weeks.



Mating season: All year except winter.

Gestation: Eggs hatch in 7-10 days, caterpillar stage lasts about 3 weeks, chrysalis stage lasts about 7 days.

No. of young: Female monarchs can lay between 400 and 600 eggs.

Legend Has It ...

Monarchs enter Texas in the fall weighing 400 milligrams but leave weighing 650 milligrams. This 62.5% increase in weight is stored in the form of fat which the butterflies will use as an energy source during cold weather.

Monarchs & Man

Monarchs return by the tens or hundreds of thousands to the same groves of trees each winter. They are sluggish during the winter and feed only on warm days. Humans are trying to protect these important places by creating butterfly preserves. Researchers study monarch migration by tagging individual butterflies to see where, how far and how fast they travel. Schools can be involved in this effort by contacting:

Texas Monarch Watch
Nongame Program
Texas Parks & Wildlife
4200 Smith School Rd.
Austin, TX 78744

or by calling 1-800-792-1112.

NORTHERN MOCKINGBIRD

Mimus polyglottos

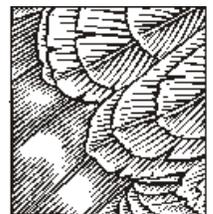


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Range

Mockingbirds are found in just about every habitat type in the state. The males' **territoriality** and constant singing and displaying during the breeding season make them the most noticeable bird in Texas. Often this territoriality takes on the form of early morning singing sessions or diving attacks on other animals or people!



Birds

NORTHERN MOCKINGBIRD

Mimus polyglottos



Appearance

Length: 10 inches
Wing span: 14 inches
Weight: 1 3/4 ounces

Mockingbirds are medium sized birds, gray above and pale below. They have white wing patches and outer tail feathers, slender black beaks and legs.



Behavior

Habit: Diurnal, altricial, omnivore
Diet: Insects, fruit, crustaceans and small vertebrates
Breeding territory: 1 pair per 20 acres

Unmated male mockingbirds sing more than mated ones. Both sexes sing in the fall to claim winter feeding territories. These areas are often different than their spring breeding territories. Mockingbirds mimic other bird's songs. They have also been known to imitate other sounds they hear such as rusty hinges, whistling and dogs barking. It is thought that the wing-flashing they do helps to flush insects and confuse predators.

Habitat

Mockingbirds are found in all parts of Texas, south and central U.S. and Mexico to Oaxaca. Most mockingbirds are year-round residents but some migrate as far south as southern Mexico, the Bahamas and Greater Antilles.

Mockingbirds & Man

Mockingbirds are one of the most commonly noticed birds in the state. They are either applauded for their audaciousness or cursed for their persistence in **nocturnal** singing or in the defense of their territory. The fact that they enjoy fresh fruits and vegetables hasn't exactly made them gardeners' friends either, although they do eat lots of insects. But like many Texans they are industrious, bold and brash.

Life Cycle

Sexual maturity: One year.

Mating season: Spring and early summer. Mockingbirds usually nest twice a year sometimes 3 or 4 times when conditions are favorable.

Gestation: Eggs hatch in 12-13 days, the young fledge 11-13 days after that.

No. of young: 2-6 usually 3-5. Eggs are blue-green with brown markings.

Legend Has It ...

*When Texas chose the mockingbird as its state bird, the resolution stated that the bird is "a fighter for the protection of his home, falling, if need be, in its defense, like any true Texan..." Its species name comes from the Greek *mimus* to mimic, and *polyglottos* for "many-tongued."*

Now You Know!

- › Only unmated males sing at night.
- › Mockingbirds often form long-term pair bonds.
- › Mockingbirds vigorously defend their territory against many other species including dogs, cats and man!
- › Female mockingbirds often build a new nest while the males finish feeding older fledglings and teaching them to fly.
- › Scientists have found that female mockingbirds are attracted to males that can make the most different sounds.
- › Mockingbirds are the state bird of Texas and one of the few birds found in every kind of habitat, from desert to forest to city.
- › Mockingbirds are thought to raise and lower their wings in order to scare up a meal of insects, frighten snakes and impress their mates.

INCA DOVE

Columbina inca

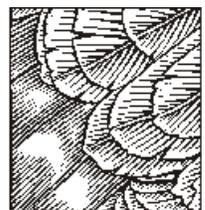


©Frank Aguilar



Range

Inca doves are common visitors to bird feeders. Their melodious “hoo hoo” repeated up to 30 times a minute fills the air during early summer. These doves are almost always seen in pairs. Their scaly appearance sets them apart from other small doves.



Birds

INCA DOVE

Columbina inca



Appearance

Length: 9 inches

Wing span: 11 inches

Weight: 1 3/4 ounces

Inca doves are tiny gray pigeon-like birds with long tails. Their outer tail feathers are white. They have rusty wing patches easily seen when they fly. Inca's have a distinctive fish scale pattern on their breast, head and back feathers.

Behavior

Habit: Diurnal, altricial, granivore

Diet: seeds

Breeding territory: 1 pair per 37 acres

During courtship, the male inca dove bows, coos and struts in front of the female, fanning his tail feathers. Males battle furiously for females.

Habitat

Inca doves are found in urban and suburban settings, woodland edges, savannahs, thickets and around cultivated fields in south-central Texas, Arizona and New Mexico as well as old Mexico and as far south as Costa Rica.

Now You Know!

- › Dove and pigeon nestlings are fed "pigeon milk" a high protein milky substance produced and regurgitated by their parents.
- › Dove nests are a flimsy basket of sticks barely woven together.
- › In the winter, inca doves gather in flocks of up to 50. On cold winter days they have been known to form pyramids 2 or 3 tiers high in order to stay warm.

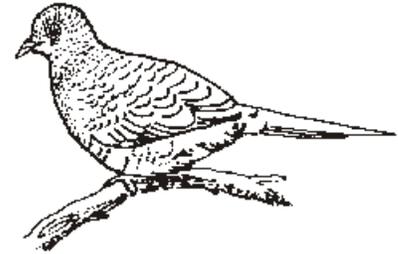
Life Cycle

Sexual maturity: Less than one year.

Mating season: Spring and early summer. Inca doves usually nest 2 to 5 times during a season.

Gestation: Eggs hatch in 14 days, young fledge 14 to 16 days after that.

Number of young: Usually 2. Eggs are white and 9/10 inches long.



Legend Has It ...

This common Southwest species is one of the most desert-adapted of the family. Its plump body can survive both extreme heat and cold. They can go four or five days without drinking, and fly 10 or more miles to reach a water hole. Because they fly directly to water, with no searching about, early west Texas travelers would often watch doves to locate water holes.

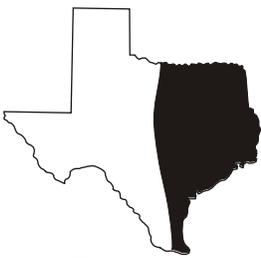
Inca Doves & Man

With their soft cooing calls, males strutting for females and their regular use of bird feeders, Inca doves quickly become backyard favorites.

Inca doves seem to be increasing in areas of human disturbance.

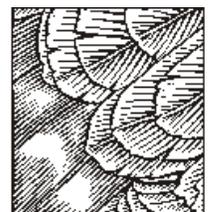
RUBY-THROATED HUMMINGBIRD

Archilochus colubris



Range

Ruby-throated hummingbirds vigorously defend a feeder or a group of flowers from other hummingbirds, hawk moths and butterflies. Ruby-throats migrate through Texas in large numbers in the fall and mass along the coast, gaining critical bodyweight before attempting to cross the Gulf of Mexico.



Birds

RUBY-THROATED HUMMINGBIRD



Archilochus colubris

Appearance

Length: 4 inches
Wing span: 4 inches
Weight: 1/10 ounce

Ruby-throated males have metallic green backs, black chins, metallic red throats and white underparts. Females lack the black chins and red throats.

Behavior

Habit: Diurnal, altricial, nectar feeder
Diet: Flower nectar and small insects
Breeding territory: 1 pair per 26 acres

Male hummingbirds arrive first and establish a territory that they vigorously defend. Females are courted by the males flying in a u-shaped pattern in front of them. Nests are made from lichens and spiderwebs and lined with plant down.

Habitat

Ruby-throated hummingbirds are found throughout the eastern part of Texas and the U.S. and southern Canada. They migrate to Mexico south through Costa Rica for the winter.

Now You Know!

- › Hummingbirds are the only birds able to fly backwards!
- › Hummingbirds often eat their own weight in food each day.
- › Hummingbirds can drop their body temperature and become dormant during times of low food or cold weather. This process is called **torpor**.
- › Hummingbirds received their name from the sound that their wings make.
- › Hummingbirds get the protein they need in their diet by eating the small insects and spiders they find in flowers.
- › The smallest bird in the world is the 22 inch long Scintillant Hummingbird found in Costa Rica and Panama.

Life Cycle

Mating season: Spring and summer. Ruby-throats usually nest 2 or 3 times a season

Gestation: Eggs hatch in 11-14 days, young fledged 14-28 days after that.

No. of young: Usually 2. Eggs are a ½ inch long, round and white.



Legend Has It ...

Even Christopher Columbus was astonished at the site of these brilliant birds as he wrote in his journal about "little birds...so different from ours it is a marvel." Because of this beauty and their tiny size "hummers" have figured prominently in myths and legends. One such myth is the idea that hummingbirds must "hitchhike" on the back of migrating geese to make the long journey across the Gulf of Mexico.

Hummingbirds & Man

Few birds give more enjoyment to backyard birdwatchers than hummingbirds. Here in Texas we have seen at least 17 different species. Most are found in far west or south Texas or along the coast during the winter.

All hummingbirds are attracted to red, tubular flowers. Planting these flowers and hanging a hummingbird feeder full of sugar water are good ways to attract them to your area.

Our greatest concentration of hummers occurs during the fall migration, when northern migrants gather along the Gulf Coast and feed voraciously before making the nonstop flight across the Gulf of Mexico.

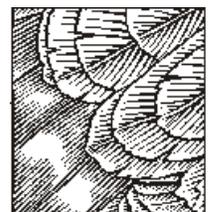
DOWNY WOODPECKER

Picoides pubescens



Range

Downy woodpeckers are our smallest and most commonly seen woodpeckers. They prefer open woodlands, orchards and parks everywhere in the United States except for the driest parts of the southwest.



Birds

DOWNY WOODPECKER

Picoides pubescens



Appearance

Length: 7 inches
Wing span: 12 inches
Weight: 1 ounce

Downy woodpeckers are small birds with white stomachs, breasts and backs and black tails and wings. Wings have rows of white spots. Males have a red cap on the back of their heads which the females lack.

Behavior

Habit: Diurnal, cavity building, **altricial insectivore**

Diet: Primarily insects but some fruit, seeds and sap.

Breeding territory: 1 pair per 24 acres

Male downy woodpeckers display a lot when courting or defending territory. Their displays consist of crest raising, dancing and drumming on trees. Sexes **forage** separately with the male preferring the smaller branches and the upper canopy layers.



Habitat

Downy woodpeckers prefer open woodlands, orchards and parks everywhere in the United States except for the driest parts of the southwest.

Downy Woodpeckers & Man

Downy woodpeckers prefer the same habitat as man, open woodlands, orchards and suburbs. They are unafraid of humans and will often come to feeders during the winter.

Downy woodpeckers, like any other woodpeckers, need dead trees to hollow out for their nests. It is important to leave dead trees standing if they don't endanger people or property.

Life Cycle

Sexual maturity: Less than one year

Mating season: Spring and early summer
Downy woodpeckers usually nest only once.

Gestation: Eggs hatch in 12 days, young fledge 20 to 25 days after that.

No. of young: 3-6, usually 4-5. Eggs are white and 8/10 of an inch long.

Legend Has It ...

The red patch on the head of the male bird inspired legends with many Native America tribes across the United States, from being a fire detective to bearer of a warrior's badge of courage. This diminutive bird has been a symbol of bravery and hard work.

Now You Know!

- › Downy woodpeckers create nest hole openings that are concealed by fungus or lichens.
- › Each bird digs its own winter roost.
- › Downies are one of the few woodpeckers that will come to feeders.
- › Downie's nests are lined with woodchips. The young are **altricial** and remain dependant on the adults for up to 3 weeks for food and bodily warmth.
- › The males does most of the **brooding**.
- › Woodpeckers may hammer on a tree as much as 10 times a minute.
- › Their brain is protected from shock by a pad of spongy elastic material between their bill and their skull.
- › Special feathers around their nostrils keep them from breathing in wood chips.
- › Spines on the ends of their stiff tail feathers act as braces as they climb or drill.

CARDINAL FLOWER

Lobelia cardinalis



©Jim Whitcomb



Range

Cardinal flower has vivid scarlet flowers that seem to be particularly attractive to hummingbirds. This plant blooms during late summer and early fall when hummingbirds are passing through on their southerly migration. Hummingbirds are attracted to plants with red tubular flowers.



Plants

CARDINAL FLOWER



Lobelia cardinalis

Appearance

Height: 6 inches to 6 feet

Flower size: Individual flowers are 2 inches long on 8 inch spikes

Flower color: Intense red

Cardinal flowers produce one to several stalks that are topped by spikes of deep velvet red flowers. They form **basal rosettes** in the winter.

Planting Information

Soil: Moist sand, loam, clay or limestone, poor drainage is okay

Sunlight: Prefers partial shade

Spacing: 1 foot apart

Lifespan: Short lived **perennials** whose size varies according to environmental conditions.

Now You Know!

- › Cardinal flowers grow tallest and flower best in wet, partially sunny areas.
- › Cardinal flowers time their blooms with the fall migration of hummingbirds, their chief **pollinator**.
- › In the winter they die back to a circular ring of leaves called a **basal rosette**. These leaves are resistant to cold and allow the plant to continue to produce and store food.
- › These plants survive Texas' hot dry summer by living in wet shady areas.
- › Cardinal flowers are specially modified so that they can only be pollinated by hummingbirds.
- › Cardinal flowers are quite uncommon. They rely on their bright color and abundant nectar to attract hummingbirds to them. The humming-birds carry the pollen long distances from flower to flower and ensure the plant's survival.

Life Cycle

Plant type: Perennial

Bloom time: May-October

Method of reproduction: Layering. Bend a stem over and partially bury it. It will produce new plants from the leaf **nodes**.

Planting time: Young plants should be transplanted during early spring or late fall.

Legend Has It ...

The scarlet-red flower was named for the red robes worn by cardinals in the Catholic Church. Although native to North America, it's been cultivated in Europe since the 1600s for its lovely flower. One legend claims that touching the root of this plant will bring love to the lives of elderly women!

Habitat

Uncommon along waterways throughout the state of Texas except in the Valley. It is found in wet shady areas throughout most of the U.S.

Cardinal Flower & Man

Wildlife needs shelter, food and water to survive. Many people are helping wildlife by supplying them with the things they need. Ponds help provide water for many kinds of wildlife. The wet areas around ponds are good for moisture loving plants such as cardinal flowers, spider lilies, buttonbush and others. Wildlife use these plants for food and cover.

BLUE JAY

Cyancitta cristata



Range

Bright and bold, blue jays often travel in noisy family groups in late summer and fall. Their arrival at a bird feeder tends to clear the area of smaller birds. Blue jays are known to eat the eggs and young of other birds and often frighten the adults off the nest by imitating the call of a hawk.



Birds

BLUE JAY

Cyanocitta cristata



Appearance

Length: 11 inches
Wing span: 16 inches
Weight: 3 1/4 ounces

Blue jays are bright blue medium sized birds with blue head crests, black wing markings and black necklaces.

Behavior

Habit: Diurnal, altricial, omnivores

Diet: Insects and other invertebrates, small vertebrates including nestlings of other species, carrion, eggs, fruits and seeds

Breeding territory: 1 pair per 14.5 acres

Blue jays use a number of behaviors to obtain food and defend themselves. In late summer, fall and winter they travel in large aggressive flocks that frighten other birds off of feeding areas and make predators think twice about bothering them. They use the call of hawks to frighten other birds. Females rarely leave the nest while incubating or rearing young. Males bring them food during this time.

Habitat

Blue jays are generally nonmigratory and are found throughout the eastern half of Texas, the U.S. and Canada. They have been expanding their range westward in urban and suburban areas due to habitat modification by humans.

Now You Know!

- › Blue jays are one of the few birds that store food for use at another time.
- › Groups of Blue jays often attack owls which they consider a threat.
- › Blue jays received their name from their color and call, a loud "Jaaaay". They can also mimic the calls of other birds especially hawks.

Life Cycle

Sexual maturity: Less than a year

Mating season: Spring and summer. Blue jays usually nest 2 or 3 times a year.

Gestation: Eggs hatch in 16-18 days, young fledge 17-21 days after that.

No. of young: 3-7 usually 4-5. Eggs are greenish, bluish or cream colored with brown spots.

Legend Has It ...

In addition to their raucous, shrill side, jays can also emit a soft, low song and are unusually tame around humans. Early Texas folklore relates a tale of the Blue jay being yoked to a plow by a sparrow. The mark left by the yoke can still be seen on the Blue jay's breast.



Bluejay & Man

Blue jays are generally unafraid of humans. In fact they have used human settlements in the west, with their resulting increase in food, water and vegetation, to expand their range.

Most birdwatchers have mixed feelings about Blue jays. They dislike their noisy aggressive behavior but appreciate their bold bright colors and cocky self assurance.

BUTTERFLY WEED

Asclepias tuberosa



©Paul M. Montgomery



Range

Butterfly weed really lives up to its name. It attracts a wide range of butterflies to the abundant **nectar** that it produces. Butterfly weed belongs to the milkweed family. Unlike other members of its group it doesn't ooze a sticky white sap if damaged.



Plants

BUTTERFLY WEED



Asclepias tuberosa

Appearance

Height: 1½ to 2 feet

Flower size: Flower clusters are 2-4 inches across

Flower color: Orange or yellow

Butterfly weeds are medium-sized plants that get bushier as they grow older. They form clumps of upright stalks with narrow pointed leaves topped by orange yellow clusters of flowers.

Planting Information

Soil: Well drained sand, loam, clay or limestone

Sunlight: Full sun to partial shade

Spacing: 2 feet apart

Lifespan: Long lived **perennial**, butterfly weed may take as long as 4 years before it reaches full size.

Habitat

Butterfly weed is found throughout the state of Texas but is more common in the eastern two-thirds. This species is widespread in the eastern half of the U.S.

Now You Know!

- › Butterfly weed stores food and water in a large **taproot**. This allows it to survive during the long dry Texas summers.
- › Because it is adapted to dry conditions butterfly weed is more likely to die from too much water than not enough. Too much water causes its roots to rot!
- › Butterfly weed is occasionally used by Monarchs as a caterpillar food plant but is not preferred because it contains too little poison!

Life Cycle

Plant type: Perennial

Bloom time: April-September

Method of reproduction: Seeds, root division

Planting time: Late summer and early fall

Legend Has It ...

Pioneers and native Americans used boiled butterfly weed roots to treat diarrhea, asthma and other respiratory illnesses. The down from milkweed seeds was spun to make candlewicks. The young seed pods were boiled with several changes of water and eaten like okra.

Milkweeds & Man

- › Most native milkweeds are unattractive plants that are considered weeds by farmers and gardeners.
- › Butterfly weed produces attractive flowers that look good in gardens and help attract butterflies.
- › People are learning that many native plants are attractive, easy to grow and require very little water and chemicals.
- › Plants that require little water are called **xerophytes**. When they are planted together they produce gardens called **xeriscapes**. Xeriscapes need little watering after they are established.

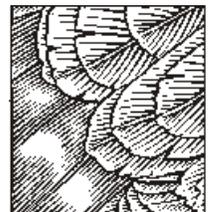
EASTERN BLUEBIRD

Sialia sialis



Range

Bluebird populations experienced an alarming decline starting in the 1930's. This was caused by loss of habitat, pesticides and competition for nesting sites by introduced house sparrows and starlings. Efforts by concerned citizens have resulted in an increase in the number of bluebirds through birdhouses and habitat improvements.



Birds

EASTERN BLUEBIRD

Sialia sialis



Appearance

Length: 7 inches
Wing span: 12 inches
Weight: 1 1/4 ounce

Eastern bluebirds are small birds, blue above with rusty throats and chests and white bellies. Males have much brighter, deeper colors than females.

Behavior

Habit: Diurnal, omnivore, cavity nester

Diet: Insects and fruit

Breeding territory: 1 pair per 31 acres

Lifespan: Maximum 8-10 yrs, average 2 years, 50% mortality of first year birds.

Male bluebirds usually arrive at their territories first and defend them vigorously against other male bluebirds. When courting, male bluebirds sing to, feed and preen females and show them the nest sites that they have picked out. The females make the final decision on where they want to nest. Bluebirds catch insects on the ground or in low vegetation, usually swooping on them from a perch.

Habitat

Eastern Bluebirds breed in the eastern half of Texas, the U.S., Canada and Mexico. They prefer open woodlands, roadsides, farmlands and orchards. Bluebirds move to the southern end of their range during the winter.

Now You Know!

- Bluebirds often band together in groups of up to 100 during the winter.
- Young from the previous brood sometimes help raise the next batch of nestlings.
- Young bluebirds are born **altricial**, which means naked, eyes closed and helpless. They rely on their parents for warmth.

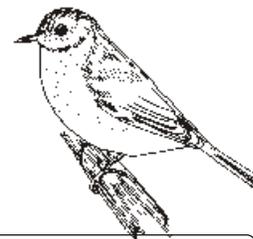
Life Cycle

Sexual maturity: One year

Mating season: February-July Bluebirds usually nest 2 or 3 times during a season.

Gestation: Eggs hatch in 12-14 days, young fledge 15-20 days after that.

No. Of young: 2-7, usually 4-5. Eggs are blue or occasionally white and 8/10 of an inch long.



Legend Has It ...

Bluebirds are native only to North America and have been cherished throughout Texas' history. Because of its sky blue feathers the Navajo Indians considered this bird sacred. This beautiful creature has long been considered the harbinger of spring and a symbol of happiness, love and hope.

Bluebirds & Man

Bluebirds have long been thought to be a lucky sign by humans. When bluebird numbers dropped 90% this century, concerned individuals worked to stop the decline. Research by ordinary citizens showed that properly designed and placed nest boxes that were carefully monitored could help to increase local populations of bluebirds. Many groups have organized "bluebird trails" where lines of bluebird houses are monitored and maintained. Information collected about nesting success, parasitism and predation have helped us better understand what bluebirds need to survive!

MAXIMILIAN SUNFLOWER

Helianthus maximiliani



©Paul M. Montgomery



Range

Maximilian sunflowers are yellow flowered **perennials** that provide food and shelter for a wide variety of wildlife. Butterflies enjoy the nectar from the masses of late summer blooms that form a spiral around the stalk. Birds, deer and other wildlife enjoy the seeds produced in the fall.



Plants

MAXIMILIAN SUNFLOWER



Helianthus maximiliani

Appearance

Height: 1-10 feet, usually 4-6 feet

Flower size: 3 inches across

Flower color: Yellow

Maximilian sunflowers are tall **perennials** with one or more stalks and long, narrow, pale green leaves. They produce large, bright yellow flowers in a spiral around the stem.

Planting Information

Soil: Well drained sand, loam, clay or limestone

Sunlight: Full sun to partial shade

Spacing: 3 feet apart

Lifespan: Long lived perennials, clumps of Maximilian sunflowers should be divided and replanted every 3 years

Habitat

Maximilian sunflowers are found in seasonally moist ditches or depressions on prairies in central and eastern Texas north to southern Canada and east as far as the prairies extend.

Now You Know!

- › Most sunflowers are **annuals**, which means that they live for only one year, but Maximilian sunflowers are **perennials** and come back for many years from their roots.
- › Deer love Maximilian sunflower seeds and will knock the tall plants down to get to them!
- › A single plant will slowly form an expanding circular colony over a number of years.
- › Sunflowers are **heliotropes** (sun lovers) and the flower heads turn to follow the sun as it moves across the sky. Look at the next field of sunflowers that you see. On a sunny day all of the flowers will be facing the same direction.

Life Cycle

Plant type: Perennial

Bloom time: August -October

Method of reproduction: Seeds or root division

Planting time: Seeds should be planted 1/4" deep in spring after danger of the last frost has passed. Roots can be dug, divided and replanted in January or February.

Legend Has It ...

Native Americans grew sunflowers as a source of food, oil, dye and thread. Early pioneers planted sunflowers near their homes. They believed that sunflowers repelled mosquitoes and that a bath in boiled sunflower blossoms relieved arthritis pain.



Sunflowers & Man

Wild animals are not the only things that love sunflower seeds, many humans do too! We currently grow 2 different types of sunflowers for human consumption. One type has seeds that produce a lot of oil while the other has large seeds that we use for food.

Urban Wildlife Vocabulary List

Accessible - easy to get to

Algae - simple green water plant which often covers rocks, sticks and other plants with a slimy coating or strands

Altricial - animals born with their eyes closed, weak, naked, and helpless

Annual - a plant that lives only one year

Aquatic - living in water

Arboreal - living in trees

Basal rosette - a circular ground level ring of leaves on a plant

Brood - group of young hatched at the same time, or the act of sitting on eggs in order to hatch them

Cavity nester - animal that uses or builds a nest in a hollow area of a tree or earthen bank

Chrysalis - life stage between caterpillar and butterfly when pupae is in a rigid cocoon

Clutch - a group of eggs produced or incubated at one time

Cold-blooded - animal whose body temperature is the same as, or nearly the same as, the animal's surroundings

Crustacean - animal related to shrimp that have a hard, jointed outer shell covering a soft body

Diurnal - active during the daytime

Diversity - wide variety of plants and/or animals occurring in one place

Edge effect - occurs at the edge of two or more different types of habitat. This area has the greatest diversity of plants and animals. It contains species not only from the bordering habitats but also organisms that are unique to the edge area.

Evergreen - a plant that keeps its leaves all year long

Forbs - low growing wide leafed plants

Forage - search for food

Generalist - organisms that can use a wide variety of food, water sources and living spaces, many successful introduced species are generalists

Gestation - length of pregnancy, time it takes for eggs to hatch

Graminivore - seed or grain eating animal

Habitat - place where an animal or plant naturally lives or grows

Heliotrope - any plant that actively turns toward the sun, tracking it over the course of the day

Insectivore - insect eating animal

Layering - masses of vegetation consisting of distinctly different levels, i.e. grasses, shrubs and trees

Mast - the fruit of certain trees, hard mast consists of acorns and other nuts

Migratory - seasonal movement sometimes covering great distances

Nectar - sugary fluid produced by a plant to attract pollinators

Nocturnal - active at night

Node - thickened part of a plant stem, normally where a leaf is attached

Omnivore - animal that eats both plants and other animals

Perennial - a plant that lives more than 2 years

Pollinator - an animal that carries pollen from one flower to another

Precocial - animals that are born with their eyes open, covered with down or fur, active, and able to seek their own food

Predator - organism that feeds on other animals

Root Division - cutting one plant's roots into a number of pieces, each of which will grow into another plant

Salmonella - a bacteria that causes food poisoning

Scutes - large bony plates

Sexual maturity - the age at which an organism can begin to produce offspring

Shrubs - medium sized long lived bushes

Specialist - organisms that have very specific requirements for food, water sources or living spaces. They often utilize a very specialized food source or living space and are very successful as long as the food or space is available. Endangered species are often specialists that have lost their unique food or homes

Taproot - main root of plant, generally grows straight down

Territoriality - defense of an area against other animals of the same or different species

Torpor - state of suspended activity or dormancy during bad weather

Travel Corridor - a pathway used by animals to travel back and forth from food to water to shelter

Upland Hardwood Forests - Forest of oak, pecan and other nut producing trees found away from rivers and streams

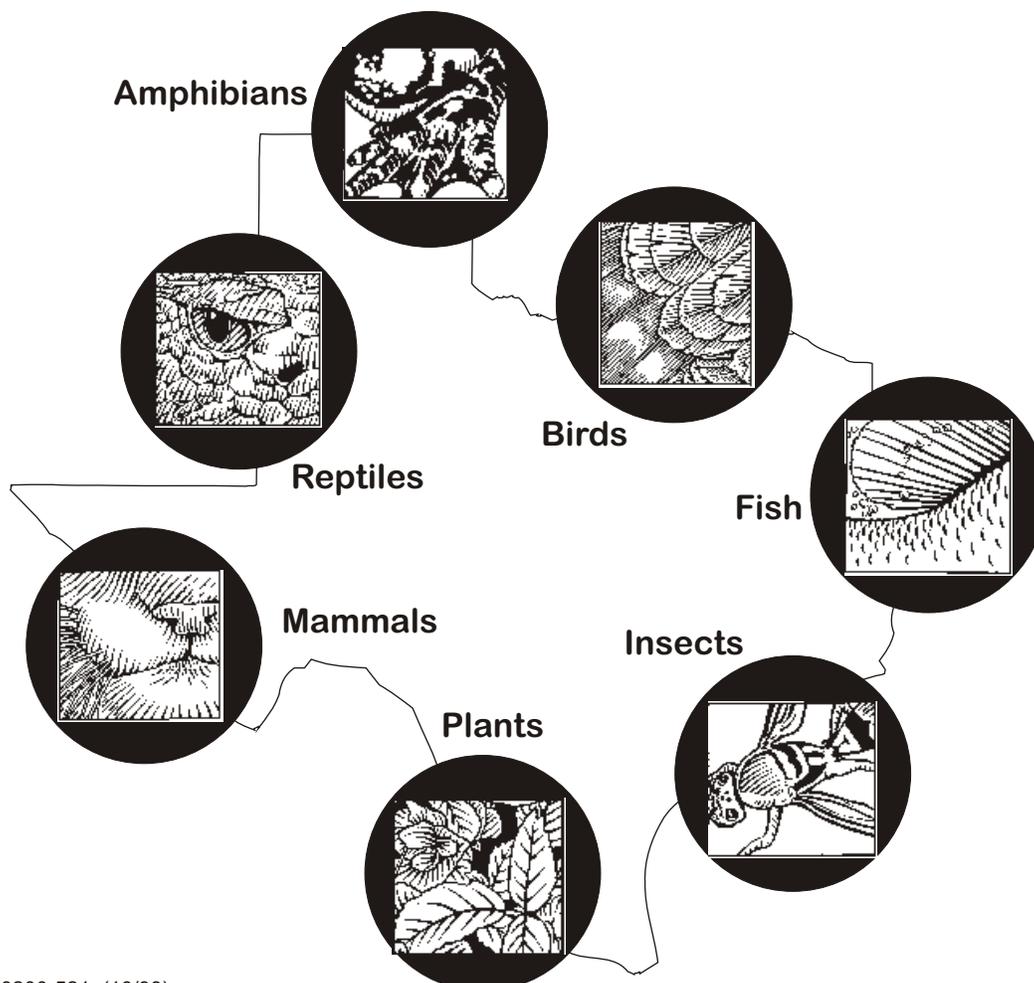
Vertebrate - animals with backbones

Waterfowl - a water bird such as a duck or goose

Weaned - when a young animal starts feeding on something other than its mothers milk

Xeriscape - landscaping with plants adapted to grow under dry conditions

Xerophyte - plant that can grow under dry conditions



Wildlife's Requirements for Survival

All animals have three basic needs: food, water and shelter. These basic needs must be met during the time of the year when the animal is present. It is important that the food, water and shelter be arranged in such a way that they are available to the animal. Providing the correct combination of these necessities increases the chance of attracting desirable wildlife. If any of an animal's basic needs are not met, they will not use the site.



Food

Natural food sources such as leaves, nectar, fruits, seeds, berries, nuts and insects are necessary for attracting and keeping wildlife. Natural food can be supplemented through the use of feeders. Seed eating animals are drawn to seed feeders and to native seed producing plants. Nectar feeding animals are attracted to sugar water feeders and native plants that produce nectar rich flowers. Insect eating animals examine plants and sift through mulch and leaf litter that hold high insect populations. Avoid using pesticide that kills the insects that these animals feed on.

Increasing the variety of plants at a site attracts a greater **diversity** of wildlife. The greater the diversity of plants that are available at a site the more leaves, seeds, flowers, fruits and berries that are available to wildlife and to the insects and other small organisms on which they feed. Different plants grow, bloom and produce seeds and fruit at different times of the year. These differences between plant species help to provide year-round food for animals.

Water

All animals need water. A year round source of safe, fresh water will draw more wildlife to a site than any other single improvement. A water source can be something as simple as a shallow container set on the ground or as elaborate as a pond with a pump that filters and recirculates the water. Water sources are unusable if they are out of reach of wildlife. A toad cannot get a drink or lay its eggs in a bird bath. Water sources that have steep slick sides or are located near heavy cover where predators can hide are actually very dangerous for wildlife. The ideal water source has **accessible** shallow areas where wildlife can drink and bathe, but is not located near cover where predators can hide.

Shelter

Animals need protection from predators and bad weather and a safe place to raise their young. Animals also prefer habitats that provide safe routes between their food and water supplies and other cover. Different species of animals use different levels in the vegetation. If some levels of vegetation are removed, then so are the homes and travel routes for these animals. It is important that wildlife be provided with protection from bad weather in the form of **evergreen** trees and shrubs, hollow trees, brush and stone piles. Woodpecker holes in dead trees are used by a variety of wildlife for homes and nesting places. Bird houses can help to replace the loss of these dead trees.



Causes for Species Decline

The greatest cause of species decline is loss of habitat, or living space. Every organism needs a unique combination of food, water and living space if it is to survive and reproduce. If any one of these needed elements is lost, the organism leaves the area or dies. Since different species need different combinations of food, water and space it is a rare site that does not to support some kind of organism.

Those organisms that are able to use the greatest variety of food, water and types of living spaces are called **generalists**. They tend to be widespread and numerous. Generalists are able to handle moderate changes in their environment.

Specialists are organisms that have very specific living requirements. They are often very successful at making use of something in their environment that other organisms do not or cannot use. Most specialists are found in very limited areas. Their numbers may be large where they are found but a loss of any part of their unique habitat causes a rapid decline in their population. Endangered species are usually specialists.

Where do humans come into this picture? Needless to say, humans are generalists. They eat many different kinds of food and live in many different kinds of habitat. Humans alter their environment in ways to make life more comfortable for themselves and to supply their own needs for food, water and living space. Prairies are cleared for farms that produce food. Forests are cut for wood products and additional living spaces. Rivers are dammed for water, flood control and the production of electricity. Wetlands are

drained for farmlands and the construction of roads and homes. Mountains are mined for their minerals. Humans are able to alter their environment more than any other organism. In doing so they produce even more habitat suitable for themselves.

All of these changes have impacts on the other organisms who share those spaces and get their food and water from them.

Often, in the process of creating more human habitat, humans alter the environment enough to eliminate the food, water or living spaces needed by other organisms to survive. We as humans have recently discovered that, for the environment to function properly, the activities of many other organisms are needed. Habitat destruction and pollution threaten the organisms that remove carbon dioxide from the air and supply the oxygen most organisms need to live.

Fortunately, it is not too late to start repairing the damage that has been done to the environment.

Knowledge is the key and each of us has our own part to play in protecting and restoring habitat to its former diversity. For more information on what you can do, please refer to the information on habitat management practices found elsewhere in this packet.





Vegetation Layers

Fields and forests look very different from yards and city parks. Humans seem to feel more comfortable when they have a clear view around them. Some wild animals feel that way too, but most prefer to stay in or near vegetation so that they are not as obvious to their enemies. When humans move into an area, one of the first things that they do is to remove high grass and brush. This removes food, cover and homes for many species of wildlife. One of the keys to keeping or attracting wildlife is to preserve or replace this protective cover.

In the wild, vegetation consists of a number of different layers that vary in height. Typically, there is a low layer made up of **forbs**, which are wide leafed plants, a somewhat taller layer of grasses, an even taller layer of **shrubs** and one or more very tall layers of trees. Not all habitats have all of these layers. Prairies have only the forb and grass layers. Forests may have only the forb, shrub and tree layers. Habitats that have the greatest variety of layers are found where fields and forests meet. These areas experience what is known as **the edge effect** and attract the greatest variety of wildlife.

This edge effect can be recreated by providing the different layers of vegetation that are found in nature. Beds of native wildflowers act as the forb layer. Flowers of the same species planted in groups form masses of color when they bloom. These large patches of color are very attractive to butterflies and other pollinators. Lawns function as the grass layer. Unfortunately, lawns normally consist of only one species of plant. Native prairies have hundreds of species of grasses and other plants. If possible, allow forbs to grow in the lawn to increase its **diversity**. Including a small area of native grasses may also benefit some wildlife species. Shrub layers act as travel corridors, feeding and nesting areas for wildlife. These layers should be rich in flowering, seed and fruit producing plants.

Evergreen shrubs provide wildlife with important protection from cold, wet and windy weather. Trees make up the tallest layer and are an important source of food, shelter and living space for wildlife. Nut producing trees are especially important in providing critical winter food supplies for many birds and mammals.

The naturally occurring boundary between a field and a forest consists of a gradual change from the low vegetation of the field through the shrub layer that is found where field and forest meet to an area of taller trees often with few other plants beneath them. To recreate this edge effect at our site the shortest plants should be placed in the front of the beds and the tallest at the back. Avoid planting things in straight lines. Straight lines are rare in nature. Natural boundaries of vegetation layers often appear as gentle curves. This increases the amount of edge and gives the site a pleasing appearance that is attractive to wildlife.

Unbroken lines of trees and shrubs produce a beneficial pattern for wildlife. These vegetation lines allow animals to travel without being exposed to predators. Trees and shrubs at the site that are connected to other lines of trees and shrubs in the area increase the chance of wildlife moving onto the site. These **travel corridors** allow animals to move between areas of a habitat. Some travel corridors already exist in urban areas in the form of vegetation along streams or power line right of ways. Connecting areas of food, cover and shelter benefit wildlife species that need larger living spaces than small sites can provide.

Texas has at least 10 different ecological regions. Choosing plants that are native to the local ecological region increases their chance of surviving and being used by local wildlife. The greatest variety of wildlife can be attracted by planting a wide variety of native plants whose flowering and fruiting times occur throughout the year.

Texas Birds and the Vegetative Layers They Live In

