Tallgrass Prairie Poster

The Great Plains extend from Canada to Mexico and from the Rocky Mountains to western Missouri. It is the largest vegetative province in North America and is about 2,500 miles long and 600 miles across at the widest point. The Great Plains are divided into three major grassland types -- tallgrass, shortgrass and mixed prairies. Tallgrass prairies, with over twice the rainfall as western shortgrass prairies, provide rich, fertile soil and growing conditions ideally suited for agriculture. With the invention of the steel plow, European settlers quickly converted tallgrass prairie to cropland. Today, only about 2 percent of native tallgrass prairie remains. The rest have been converted into the "bread basket" of North America. The Flint Hills of Kansas contain the largest remaining expanse of tallgrass prairie in the world. Tallgrass prairie is characterized by four major grasses: big bluestem, Indiangrass, switchgrass and little bluestem. In good growing conditions with fertile soil, seed heads of big bluestem can reach 10 feet high. Below ground, their root system may reach depths of 10 feet. Tallgrass prairie is dependent on periodic fires to keep woody vegetation from dominating the landscape. Fires eliminate trees and woody shrubs but do not damage the root system of grasses which quickly regenerate the prairie. Native prairies are home to a large number of plants and animals specifically adapted to these unique habitats. Many of these species face uncertain futures. Conservation and rigorous use of sound habitat management practices can be used to mimic natural processes to protect what remains of our tallgrass prairies and the species which live there. This will allow future generations to enjoy the ***Faces of the Great Plains - Wildlife of the Tallgrass Prairie***.

Species Profiles

1. Greater Prairie-Chicken (*Tympanuchus cupido pinnatus*) - This bird is a traditional symbol of the tallgrass prairie across the Great Plains. It is one of three recognized subspecies of greater prairie-chickens including the extinct heath hen, historically found along the Atlantic coast and the endangered Attwater's prairie-chicken of southeastern Texas. On ancestral leks, males congregate and compete by dancing and "booming" for the chance to breed with females. Lek activity peaks in April across most of the tallgrass prairie. Greater prairie-chicken numbers have dropped steadily over the past 30 years due to changes in habitat. Good prairie-chicken habitat consists of a mix of 75 percent grassland to 25 percent cropland. Controlled burning every three to four years creates a balance between removing unwanted woody vegetation and maintaining adequate nesting cover. In spite of declining populations, hunting and viewing opportunities are good in Kansas, Nebraska and South Dakota. Kansas has the largest population of greater prairie-chickens in the world.

2. Upland Sandpiper (*Bartramia longicauda*) - Its cryptic coloration, ground nesting behavior, flight song and relatively short incubation and nestling periods are all adaptations to grassland survival. Upland sandpipers winter in South America and are only seen in the Great Plains for about four months during the breeding season. During the 1880s these birds became prime targets for market shooters providing food to eastern cities. More detrimental to the species was the plowing of the prairie when it was converted to cropland. It has a distinctive "wolf whistle" call it often gives in flight and an equally distinctive "wing stretch"

seen when it alights from flying. It is often seen perched on wooden fence posts throughout the tallgrass prairie during the spring and summer.

3. Coyote (*Canis latrans*) – The coyote is a survivor. Often referred to as the "trickster" in Native American tales, it was misidentified as the "prairie wolf" by early pioneers. Its ability to adapt to people and changing habitat allows it to occur in many different habitats throughout its considerable range. This adaptability has brought coyotes into conflict with humans and allowed them to exploit habitat formerly occupied by larger predators such as bears and wolves. Although they kill newborn lambs and sick, old and injured livestock, most coyotes feed on carrion, rabbits, rodents, ground nesting birds, eggs, snakes, frogs, fish, insects and fruit. Coyotes may live singly, in pairs or packs. Their spine-tingling howls are a well known sound of the prairie night.

4. Eastern Meadowlark (*Sturnella magna*) - The distinctive meadowlark, a member of the blackbird family, is most common in native grasslands where males are seen during flight or singing from fence posts. Although their winter diet consists of seeds and other plant material, they depend on grasshoppers, crickets and other insects during the breeding season. Nests are often parasitized by brown-headed cowbirds and other species have also been known to lay their eggs in meadowlark nests. They are extremely vulnerable to disturbance on their breeding territory and often abandon their eggs due to human activity. Early mowing, trampling by grazing animals, pesticide use and loss of habitat due to tree encroachment are important factors affecting declining breeding populations.

5. Brown-headed Cowbird (*Molothrus ater*) - Cowbirds originated in the Great Plains, following bison herds across the prairies. This species is best known for its unique habit of parasitizing nests. Female cowbirds do not build nests but instead lay their eggs in the nests of other species. Over 200 species have served as hosts for cowbirds and over half of them have successfully fledged cowbird chicks. The female cowbird will remove one or more of the host species' eggs. Since cowbird chicks grow faster than the chicks of many other species, they out-compete their nest mates for food. For many of these host species, cowbird parasitism can be a limiting factor in the survival of their own young. Fragmentation of eastern deciduous forests by the expansion of agriculture and urbanization has led to the increase of cowbirds across the continent. Where populations of endangered or threatened species are nesting, cowbird control is often initiated to assist in nesting success.

6. Badger (*Taxidea taxus*) - This relative of the weasels, skunks and mink is highly adapted to a fossorial lifestyle. The nictitating membrane protects its eyes from dirt while still allowing it to see. The partially webbed toes provide "shovels" and its flattened body aids movement underground. Their pelage ranges from a grayish-brown to creamy to an orange color. The "badges" are two dark marks found on either side of their face and their white head marking may extend to their tail. When seen moving above ground they seem to flow like a blanket being pulled across the ground. They dig for food, mainly rodents such as ground squirrels, snakes, and frogs and also feed on birds and their eggs. They are solitary and secretive animals but will attack when cornered. Badgers can be trapped legally although many are poisoned

unintentionally in efforts to remove coyotes or other furbearers. Badgers go into torpor during cold winter days, but are not true hibernators.

7. Great Plains Skink (*Eumeces obsoletus*) - The adult has a patterned back and sides with a uniform, whitish gray belly. Females lay up to 32 eggs in deep burrows beneath large boulders. They remain with the eggs during the one to two month incubation period. The young are hatched jet black with blue tails and small, bluish white to orange spots on the sides of their head. Skinks feed on beetles, spiders, grasshoppers and snails. They spend the winter in underground burrows beneath the freeze line. They are active from March through October but may be difficult to find because they spend most of the time under rocks on open hillsides. Skinks have jaws powerful enough to inflict a painful bite.

8. Henslow's Sparrow (*Ammodramus henslowii*) - The secretive habits and weak song of the Henslow's sparrow make it a challenge to spot in a field of tallgrass prairie. Henslow's sparrows are most common in the wetter areas of grasslands. These sparrows nest in loose colonies where there is tall, dense grass with a thick thatch layer and lots of dry plant stems for the males to sing from. The birds forage, hide their nests and escape from predators in the thatch layer**.** With these specific habitat requirement**s**, Henslow's sparrows are only found in tallgrass prairies that have not been burnt for several years or heavily grazed. Breeding populations across North America have decreased more than 90 percent in the past 30 years.

9. Collared Lizard (*Crotaphytus collaris*) - This striking lizard is found in rocky outcrops in the plains. It is aggressive and fast, often running on its hind legs with its front feet in the air. They are territorial and males display bright colors to an intruder. If undeterred, the territorial male will attack and chase it off. Females with developing eggs have bright orange-red spots or bars along their sides. They lay their eggs in a burrow or in moist soil under a rock. Collared lizards will sit and bask on rocks, using their eyesight to look for prey. They will run from their rocky lookout and grab grasshoppers, moths, beetles, cicadas and wasps. Collared lizards are eaten by hawks and snakes.

10. Western Slender Glass Lizard (*Ophisaurus attenuatus*) – The western slender glass lizard is one of the largest lizards found in the Great Plains. Often mistaken for a snake, it can reach lengths up to 3 feet. Its eyelids, ear openings and the groove along its side distinguish it from a snake. Like many lizards, it easily looses its tail when grabbed allowing it to escape predators such as snakes, birds and mammals. The tail will grow back but never as long as the original. This lizard is carnivorous and eats insects, spiders, snails, frogs, small snakes and newborn small mammals. They stay underground in the abandoned burrows of rodents. Females lay up to 17 eggs in a nest in June or July and stay with them until they hatch in about seven weeks.

11. Franklin's Ground Squirrel (*Spermophilus franklinii*) - This tallgrass specialist, although less abundant since the advent of agriculture, is still quite common. These rodents are diurnal and build burrows in well-drained soils near thickets or woodland edges. Although they eat leafy vegetation, fruit, seeds and

roots, they are also highly carnivorous. Eggs, nestling birds, small mammals, insects and carrion are eaten during the summer. Among their predators are coyotes, badgers, raptors and large snakes. Females produce a litter of six to nine helpless, blind, naked young in May. After about two to three weeks the young emerge from their burrow and begin to forage on their own. Males may begin hibernation as early as July and adults may not emerge until the following April. They may double their spring emergence weight before their next hibernation. It is estimated only half of the animals that hibernate survive the winter.

12. Great Plains Narrowmouth Toad (*Gastrophryne olivacea*) - This amphibian has a pointed snout and fold of skin across the back of its small head. The head, body and limbs are light tan or gray and their belly is white. Males have blackish throats. They reach 1½ inches in length and feed almost exclusively on ants. Their predators include shrews, larger frogs and snakes. They are secretive and spend most of their time beneath ground. These frogs are nocturnal and found from April through October beneath rocks on open, grassy slopes. The din of their bleating, lamb-like *baaa* calls is sometimes incredible.

13. Ornate Box Turtle (*Terrapene ornata*) - Box turtles have a hinge across their plastron used to enclose their legs, tail and head within their hard shell when disturbed. The radiating yellow lines on the carapace distinguish it from other box turtles. Males have red eyes and are smaller than the yellow or brown-eyed females. Box turtles are omnivorous, eating berries, beetles, grasshoppers, earthworms and carrion. Coyotes and skunks prey upon turtles and their eggs, but one of the worst dangers is humans. Many turtles are killed each year by vehicles as they cross highways. Ornate box turtles may live to be 35 years old in the wild.

14. Common Nighthawk (*Chordeiles minor*) - Active at dawn and dusk, these birds are seen and heard diving and pursuing their main source of food of flying insects. They lay their eggs on a bare spot on the ground, or any flat surface and depend on their cryptic plumage for camouflage. Both parents feed their chicks regurgitated insects. Large flocks of up to 1,000 individuals have been reported during fall migration. Loss of habitat and the indiscriminate use of pesticides are the main reasons for the decline in numbers of common nighthawks.

15. Racer (*Coluber constrictor*) - This smooth scaled, uniformly colored snake is one of the fastest found on the prairie and can reach lengths of nearly 6 feet. It is diurnal and relies primarily on eyesight to find and capture food. It eats insects, frogs, lizards, other snakes, birds, eggs and small mammals. Hawks and mammals such as the coyote are their predators. Female racers lay from 8-22 eggs during the summer in the burrows or tunnels of small mammals. Eggs hatch in two to three months and young are patterned with large dark spots and speckles.

16. Regal Fritillary (*Speyeria idalia*) – Regal fritillaries belong to the largest family of butterflies in the world but are only found in tallgrass prairies. The brown and tubercle-covered larva gives no hint it will become a beautiful, golden-brown prairie butterfly. The Nymphalidae all have hairy and brushlike front legs reduced

in size and not used for walking. Both males and females are attracted to butterfly milkweed, common milkweed and purple coneflower. Males begin to emerge in early June and the females soon follow. Eggs are laid in early fall on violets. They overwinter as freshly emerged larvae. The range of the Regal has been reduced due to habitat loss. The tallgrass prairies of eastern Kansas and western Missouri are one of their last strongholds.

17. Scissor-tailed Flycatcher (*Tyrannus forficatus*) - Found in the southern Great Plains, this unique flycatcher is often seen perching on a fence wire or swooping to snatch insects from the air. The long tail feathers and salmon colored underwings and sides make this elegant species hard to miss. Scissortail flycatchers' nests are sometimes parasitized by brown-headed cowbirds, but the cowbird eggs are often recognized and removed by the parent. Severe thunderstorms, common across the tallgrass prairies, will often destroy nests. Although local populations have suffered significant decreases throughout the years, the population as a whole remains stable.

18. Deer Mouse (*Peromyscus maniculatus*) – This is the most geographically widespread, abundant and morphologically variable species of North American mammal. Its distinctly bicolored tail, dark on top, white on the bottom, is a useful characteristic to distinguish it from other mice on the Great Plains. It is nocturnal and active year-round. Average lifespan may be only a few months and one year is considered "old age." Females may begin to breed at five weeks of age with up to nine young born in each of several litters throughout the year. Deer mice are carriers of human diseases including hantavirus, Lyme disease and plague but are also at the base of the food chain for many carnivorous mammals, snakes and raptors. Population abundance cycles locally every three to five years, which is reflected by the population cycles of its predators.

19. Dickcissel (*Spiza americana*) - These perky, sparrow-sized birds are closely related to cardinals. Their song, *dick, dick, dickcissel* and their call, a *bzrrrrt* like an electric buzzer are commonly heard in open prairies. In addition to prairies they also nest in wheat fields. Populations can be erratic and drought in the southern regions of their breeding grounds cause them to move into more marginal areas. Dickcissels eat insects during the summer but revert to seeds during the winter. This has led to persecution in their winter range as Central and South American farmers and dickcissels compete for grain crops such as rice and sorghum. Alarming population declines have led biologists to try and work with farmers in Venezuela to protect both their crops and the dickcissel.