

**Songbird  
ReMix**

# PRAIRIE-CHICKEN



**Includes the Greater & Lesser Prairie-chickens**

**Avian Models for 3D Applications**

Characters and Texture Mapping by Ken Gilliland

# PRAIRIE-CHICKEN

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## Songbird ReMix

# PRAIRIE-CHICKEN

## Introduction

The Prairie-chicken is a species of grouse that is endemic to the southern and central high grassland plains of the United States. There are two species of Prairie-chicken, the Greater and Lesser.

Like its name suggests, the Greater Prairie-chicken resembles a domesticated chicken in shape and size, but the similarities end there. Males have distinct yellow eyebrows and brightly colored air sacs on the sides of their throats. Both sexes are boldly striped with brown and white feathers. The Greater Prairie-chicken is sometimes called a “boomer” because of the male's deep, booming calls during mating season. The Lesser Prairie-chicken is smaller and lighter in color compared to the Greater.

Both are considered bellwethers of the health of America's Midwestern storied tall grasslands (where the “*Buffalo roamed*” and the “*West was won*”). While both species were once abundant, they have now become rare over much of their range due to habitat loss.

The Songbird ReMix version of these iconic birds includes the standard Songbird ReMix series features, such as working wings, fully articulated body parts, and even an inflatable air sac in the throat of the males of the species.

There are two versions of this set for native support in Poser and DAZ Studio. Materials have been tuned to support Iray, 3Delight, Superfly and Firefly renderers.

## Overview and Use

The set is located within the **Animals : Songbird ReMix** folder. Here is where you will find a number of folders, such as **Bird Library**, **Manuals** and **Resources** . Let's look at what is contained in these folders:

- **Bird Library:** This folder holds the actual species and poses for the "premade" birds. Birds are placed into a "type" folder (such as "Birds of Prey (Order Falconiformes)" which for example would hold falcons, hawks and eagles). The birds for this set can be found in the following folder(s):

□

- **Game-birds (Order Galliformes)**

- **Manuals:** Contains a link to the online manual for the set.
- **Props:** Contains any props that might be included in the set
- **Resources:** Items in this folder are for creating and customizing your birds

- **Bird Base Models:** This folder has the blank, untextured model(s) used in this set. These models are primarily for users who wish to experiment with poses or customize their own species of bird. When using physical renderers such as Iray and Superfly, SubD should be turned to at least “3”.

## Poser Use

Select **Figures** in the **Runtime** Folder and go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer (*Firefly or Superfly*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**.

## DAZ Studio Use

Go to the **Animals : Songbird ReMix** folder. Select the bird from the renderer (*3Delight or Iray*) folder you want and simply click it to load. Some birds in the Songbird ReMix series may load with attached parts (*Conformers*) such as tail or crest extensions. Some of these parts have specific morphs. You will need to click on the attached part to access those controls. Associated poses can be found in the same folder- **Bird Library : (Type) : Poses**. **Note:** Using the "Apply this Character to the currently selected Figure(s)" option **will not** properly apply the correct scaling to the bird selected. It is better to delete the existing character first and load the one you want to use.

## Posing & Shaping Considerations

This volume has various species, so when using generic poses not every pose will work perfectly with every bird. You may find that some minor alteration on the stock poses may be warranted.

Here are some of the most common alterations you may need to make:

- Birds will not be flat on the zero plane due to leg size and overall scale.
- Using the WingFold (4-part morph) in conjunction with the wing controllers (*forearm, hand, feather*) is **not recommended**. The controllers (in particular, *feathers*, may cause unpredictable results in the mesh.
- Many Male Only controls/morphs are turned off and will only work if the “Male” parameter is set to “1” in **Creation Controls/Sex**.
- Two styles of Tail Feather folding... you **should not** mix the “*Fold Tail Feathers*” morph (*from Action Controls/Common Controls*) with the “*Tail Feathers Flight*” morph (*from Action/controls/Tail controls*). The “Flight” morph is only for flight poses or use with the female Prairie-chicken.
- In some poses, the male Prairie-chicken make have some of its airsac exposed when you don’t want it exposed... use the “*Fluff Neck sides Cover*” morph (in Action Controls/Fluff Feathers/Head and Neck”) to help recover that area.

## Physical-based Rendering

**Iray** and **Superfly** requires more CPU and memory horsepower than the legacy renderers because of ray-trace bounces and higher resolution meshes needed for



displacement. Poser's **Superfly** renderer will need the "Min Transparent Bounces" be set to **at least 16** and that the "Max Transparent Bounces" be set to **at least 32** in render settings. Superfly renders may show artifacts in the head area. The higher the bounce settings, less chance those will be visible. This is a known Poser issue and may be addressed in the future. Increasing the SubD may minimize this issue.

## Where to Find your Birds & Poses

Type Folder	Bird Species
<input type="checkbox"/> Gamebirds (Order Galliformes) <input type="checkbox"/>	All Species and Poses



Songbird ReMix

# PRAIRIE-CHICKEN

# FIELD GUIDE

*Greater Prairie-chicken*

*Lesser Prairie-chicken*





**Common Name:** Greater Prairie-chicken

**Scientific Name:** *Tympanuchus cupido*

**Size:** 16.9-18 inches (43-45.7 cm); **Wingspan:** 28 inches (71 cm)

**Habitat:** North America; the Midwest and the northern and central plains of the United States (Minnesota, Wisconsin, South Dakota, Missouri, Kansas, Nebraska, New Mexico, Oklahoma and (perhaps) Texas)

This species requires a relatively undisturbed prairie, originally living on natural tall-grass prairie. They can tolerate a small amount of agricultural land interspersed with prairie, but generally become less and less numerous as the percentage of agricultural land increases.

**Status:**

Vulnerable.

**Global**

**population:**

360,000 adult individuals with a decreasing population trend. Of the three recognized subspecies, the Heath Hen (*T.c. cupido*) is extinct (1932). The Attwater's Prairie Hen (*T.c. attwateri*) is restricted to small portions of south-east Texas (numbering under 1,000 in the mid-1990s). The Greater Prairie-chicken (*T.c.*

*pinnatus*) is extinct or in danger of extinction in 15 states, but numerous enough to be legally hunted in four states, with the largest remaining populations in Kansas, Nebraska and South Dakota. It has been in long-term decline for the last 80 years, with recent figures suggesting a steep population decline in the period 1989-1997.



The loss of prairie habitat through conversion to cropland was primarily responsible for the extinction of *T.c. cupido* and declines in the other two subspecies. Grazing pressure from sheep and the increase in cropland throughout areas of native prairie is threatening the remaining population of *T.c. attwateri* in Texas. Habitat fragmentation leading to isolated populations and a loss of genetic variance and subsequent decreases in fertility will reduce fitness and reinforce negative demographic trends. In certain states, hunting continues, which has caused further declines in population. The species may suffer from competition with non-native Ring-necked Pheasant (*Phasianus colchicus*) which was imported as a “game” bird for hunting.

**Diet:** Primarily feeds on leaves, seeds, berries, and waste grain in the winter, as well as acorns where available. In the summer, these items are augmented by insects.

It forages most often at dawn and dusk; mostly on the ground. It was been seen up in trees and shrubs.

**Nesting:** A medium to large chicken-like bird. It is striped brown and white with a short, rounded tail. The wings appeared rounded when in flight. Adult males have orange comb-like feathers over their eyes and dark, elongated head feathers that can be raised or lain along neck. They also possess a circular, unfeathered neck patch which can be inflated while displaying; this, like their comb feathers, is also orange. As with many other bird species, the adult females have shorter head feathers and also lack the male's yellow comb and orange neck patch.

It is known for its mating dance. They are territorial birds and often defend their booming grounds together in a communal lek. These booming grounds are where they perform their displays in hopes of attracting females. Their displays consist of inflating air sacs located on the side of their neck and snapping their tails. These booming grounds usually have very short or no vegetation. The male prairie-chickens stay on this ground displaying for almost two months. The breeding season usually begins in the United States starting in late March throughout April. During this time the males establish booming sites where they display for the females. The one or two most dominant males will do about 90% of the mating. Due to their now small populations and habitat fragmentation, the greater prairie-chickens often undergo inbreeding, causing observable inbreeding depression: with fewer offspring and a decreased survival rate within these limited offspring further aiding their population decrease.

After mating has taken place, the females will move about one mile from the booming grounds and begin to build their nests. Hens lay between 5 and 17 eggs per clutch and the eggs take between 23 and 24 days to hatch. There are between five and 10 young per brood. The young are raised by the female and fledge in one to four weeks, are completely independent by the tenth to twelfth week, and reach sexual maturity by age one. One problem facing prairie-chickens is competition with the ring-necked pheasants. Pheasants will



lay their eggs in prairie-chicken nests. The pheasant eggs hatch first; this causes the prairie-chickens to leave the nest thinking that the young have hatched. In reality the eggs did not hatch and the young usually die because the mother is not there to incubate the eggs.

**Cool Facts:** Greater prairie-chickens are not threatened by severe winter weather. When the snow is thick they "dive" into the snow to keep warm. A greater threat to the prairie-chickens comes in the form of spring rains. These sometimes drenching rains can wreak havoc on their chicks. Another major natural threat is drought. A drought can destroy food and make it difficult for the chicks.

Central Wisconsin is home to approximately 600 individuals, down from 55,000 when hunting was prohibited in 1954. Though this area was predominately spruce and tamarack marsh before European settlement, early pioneers drained the marshes and attempted to farm the poor soil. As the prairies to the south and west were lost to agriculture and development, and the southern half of Wisconsin was logged, the prairies spread northward into the abandoned farmland. Today, over 30,000 acres are managed by the Wisconsin Department of Natural Resources as greater prairie-chicken habitat. Birdwatchers travel from around the world to visit Wisconsin in April for the [Central Wisconsin Prairie Chicken Festival](#), started in 2006 by Golden Sands Resource Conservation & Development Council, Inc.

There are 3 subspecies of Greater prairie-chicken:

- *T.c. cupido*. The extinct Heath Hen (the nominate species) was found in the scrub oakland and fire-created blueberry barrens of the East Coast. The last Heath Hens were confined to the island of Martha's Vineyard, off the coast of Massachusetts, where they went extinct in 1932. The terminal spots on scapulars were large, buffy white, Its ventral barring was wider.
- *T.c. attwateri*. It is/was found in coastal Texas and referred to as Attwater's Prairie-chicken. It is like Race *pinnatus* but smaller. The dorsum is more tawny, and lower portion of the tarsi is always bare on posterior and lower front sides.
- *T.c. pinnatus* is now restricted to a small section of its former range in the mid-western United States. It is similar to the nominate (Race *cupido*) but the scapulars lack the conspicuous terminal spot of buffy white. The dorsum is browner, and ventral barring is narrow. It average averages slightly larger, making it the largest of the subspecies.

**Common Name:** Lesser Prairie-chicken

**Scientific Name:** *Tympanuchus pallidicinctus*

**Size:** 15.75 inches (40 cm); **Wingspan:** 26 inches (66 cm)

**Habitat:** North America; About half of its current population lives in western Kansas, with the other half in the sandhills and prairies of western Oklahoma, the Texas Panhandle including the Llano Estacado, eastern New Mexico, and southeastern Colorado.

This species requires a relatively undisturbed prairie, originally living on natural tall-grass prairie. They can tolerate a small amount of agricultural land interspersed with prairie, but generally become less and less numerous as the percentage of agricultural land increases.



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**Status:** Threatened.

**Global population:** 22,000-41,000 adult individuals with a decreasing population trend. This species is declining rapidly, owing to conversion and development of prairie grasslands. It has undergone a large and statistically significant decrease over the last 40 years in North America (99.6% decline over 40 years, equating to a 75.7% decline per decade. There is also evidence suggesting that global warming may have a particularly detrimental influence by greatly reducing the size of the sagebrush ecosystem.

The United States Department of the Interior has proposed creating a Lesser prairie-chicken Preserve as a National Monument in 2010, but it remains controversial, with Presidents failing taken action on the proposal under the Antiquities Act of 1906 ever since then. On March 27th 2014, the Lesser prairie-chicken was listed as threatened under the Endangered Species Act.

**Diet:** Primarily feeds on leaves, seeds, berries, and waste grain in the winter, as well as acorns where available. In the summer, these items are augmented by insects.

Forages most often near dawn and dusk, foraging on the ground most of the time, but also up in trees and shrubs.

**Nesting:** A smaller to medium chicken-like bird. The Lesser prairie-chicken is slightly smaller and paler than its near relative, the Greater prairie-chicken. It is striped brown and white with a short, rounded tail. The wings are rounded when in flight. Adult males have orange comb-like feathers over their eyes and dark, elongated head feathers that can be raised or lain along neck. They also possess a circular, unfeathered neck patch which can be inflated while displaying; this, like their comb feathers, is also orange. As with many other bird species, the adult females have shorter head feathers and also lack the male's yellow comb and orange neck patch.

The Lesser Prairie-Chicken is known for its mating dance. They are territorial birds and often defend their booming grounds together in a communal lek. These booming grounds are the area in which they perform their displays in hopes of attracting females. Their displays consist of inflating air sacs located on the side of their neck and snapping their tails. These booming grounds usually have very short or no vegetation. The male prairie-chickens stay on this ground displaying for almost two months. The breeding season usually begins in the United States starting in Late March throughout April. During this time the males establish booming sites where they display for the females. The one or two most dominant males will do about 90% of the mating. Due to their now small populations and habitat fragmentation the greater prairie-chickens often undergo inbreeding causing observable inbreeding depression: with fewer offspring and a decreased survival rate within these limited offspring further aiding their population decrease.

After mating has taken place, the females will move about one mile from the booming grounds and begin to build their nests. Hens lay between 5 and 17 eggs per clutch and the eggs take between 23 and 24 days to hatch. There are between five and 10 young per brood. The young are raised by the female and fledge in one to four weeks, are completely independent by the tenth to twelfth week, and reach sexual maturity by age one. One problem facing prairie-chickens is competition with the ring-necked pheasants. Pheasants will lay their eggs in prairie-chicken nests. The pheasant eggs hatch first; this causes the prairie-chickens to leave the nest thinking that the young have hatched. In reality the eggs did not hatch and the young usually die because the mother is not there to incubate the eggs.

**Cool Facts:** Sub-fossil remains are known from Rocky Arroyo in the Guadalupe Mountains, outside the species' current range but where more habitat existed in the less humid conditions in the outgoing last ice age. Range contraction apparently took place no later than about 8000 BC.



## Special Thanks to my Beta-Testing Team...

*Alisa & FlintHawk*

## Species Accuracy and Reference Materials

The author has tried to make these species as accurate to their real life counterparts as possible. With the use of one generic model to create dozens of unique bird species, some give and take is bound to occur. The texture maps were created in Painter with as much accuracy as possible.

## Field Guide Sources:

- **Handbook of the Birds of the World** <https://www.hbw.com/>
- **Wikipedia** [https://en.wikipedia.org/wiki/Main\\_Page](https://en.wikipedia.org/wiki/Main_Page)
- **BirdLife International** <https://www.birdlife.org/>
- **Audubon of Kansas** <https://www.audubonofkansas.org/conserving-prairie-chickens-and-their-habitat.cfm>

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prints, cards, posters, pillows,  
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