

KANSAS UPLAND BIRD HUNTING OUTLOOK 2011

GENERAL INFORMATION

When considering upland game population levels during the fall hunting season, two important factors impact population change. First is the breeding population, in other words the number of adult birds that survived the previous fall and winter and are considered viable breeders in the spring. The second is the reproductive success of the breeding population. Reproductive success consists of nest success (the number of nests that successfully hatched) and chick (or brood) survival (the number of chicks recruited into the fall population). The fall population available for harvest is contingent on BOTH breeding population levels and reproductive success. For pheasant and quail, annual population turnover is relatively high; therefore the fall population is more dependent on reproductive success than breeding population levels. For grouse (prairie chickens), annual population turnover is not as rapid, although reproductive success is still the major population regulator and important for good hunting opportunities. In the following forecast, breeding population and reproductive success of pheasants, quail, and prairie chickens will be discussed. Breeding population data were gathered during spring breeding surveys for pheasants (crow counts), quail (whistle counts), and prairie chickens (lek counts). Data for reproductive success were collected during summer roadside surveys for pheasants and quail. Reproductive success of prairie chickens cannot be easily assessed because they generally do not associate with roads.

Central and western Kansas had a relatively mild 2010 2011 winter and over-winter survival was very high for upland game throughout most of the state. Eastern Kansas, especially southeast, had high snowfall, possibly hurting populations. Breeding populations in central and western areas neared all time highs, especially for pheasant. However, drought conditions began in the summer of 2010, and persisted into the 2011 nesting and early brooding period (May July) for much of the state. This caused reduced wheat germination and growth, especially in western Kansas. Areas in northwest and northcentral parts of the state began receiving precipitation in May, which improved brooding conditions in those areas, but likely hurt nest success where precipitation was excessive. Additionally, in July and August some severe hailstorms went through these areas, possibly decreasing chick survival, at least in localized spots. Areas in approximately the southern half of the state continued in prolonged drought through the rest of the summer (Figure 1). Southwest and southcentral Kansas had particularly bad reproductive conditions for pheasants, quail, and prairie chickens.

Because of drought conditions, many counties were opened to Conservation Reserve Program (CRP) emergency haying or grazing (see grayed counties in Figure 2). CRP emergency haying requires fields that are hayed to leave at least one half of the field in standing grass cover. CRP emergency grazing requires 25 percent of the field (or contiguous fields) to be left ungrazed or grazing can occur at 75 percent normal stocking rates. Because of this emergency grazing, some Walk-In Hunting Areas (WIHA) may be affected in eligible counties. WIHA property is privately owned land open to the hunting public for access. Kansas has approximately 1 million acres of WIHA (atlases are available at www.kdwpt.state.ks.us or at any license distributor). Notably, only a small percentage of CRP is usually hayed or grazed in a given county during

emergency conditions. Often older stands of CRP grass are in need of disturbance, and haying and grazing can improve habitat conditions for the upcoming breeding season, and may ultimately be beneficial.

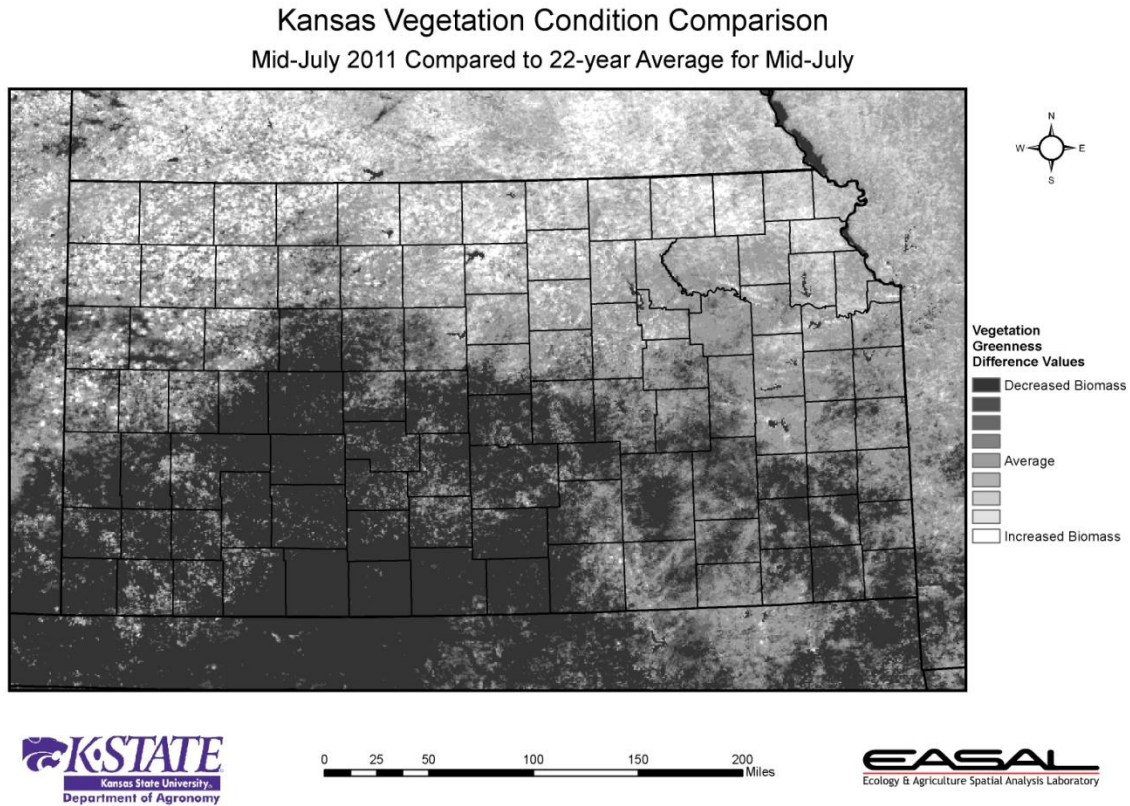


Figure 1. Darker areas indicate lesser vegetative habitat. Courtesy of Kansas State University Ecology and Agricultural Spatial Analysis Laboratory.

Like many major upland game destination states to the north, Kansas will generally see declines this year in populations. In many of those northern states (e.g., North Dakota, South Dakota, Nebraska, and Iowa) too much precipitation and cool weather has been a primary factor in declining populations, while many areas of Kansas did not have enough moisture, and summer temperatures were too high. There will still be pockets of decent bird numbers with carryover birds and some reproduction, especially in the central, northcentral, and northwestern parts of Kansas. Kansas has more than 1.5 million acres open to public hunting.

Season	Open Dates	Daily Bag (Possession)	Open Areas
Prairie chicken (Early)	15 Sep. – 15 Oct.	2(8)	East of Hwy. 281
Youth Pheasant	5-6 Nov.	2(4)	Statewide
Youth Quail	5-6 Nov.	4(8)	Statewide

Pheasant	12 Nov. – 31 Jan.	4(16)	Statewide
Quail	12 Nov. 31 Jan.	8(32)	Statewide
Prairie chicken * East and Northwest Units	19 Nov. – 31 Jan.	2(8)	North of I 70 & east of Hwy. 281
Prairie chicken * Southwest Unit	19 Nov. – 31 Dec.	1(4)	South of I 70 & west of Hwy. 281

STATEWIDE SUMMARIES

PHEASANT – Due to good production in the summer of 2010 and a relatively mild winter across the range, the number of pheasants going into the nesting season was near all time highs in most regions of the state for 2011. Unfortunately, drought conditions through much of the state hampered reproduction for pheasants this year. A substantial number of hens nest in winter wheat in the primary pheasant range (western Kansas). This year much of western Kansas, especially the southwest. Nest success was likely much lower in these areas due to poor vegetative structure. Additionally, earlier wheat harvest dates due to poor growing conditions likely caused mechanical losses to nests or young broods. Thus, like many other pheasant states, Kansas will experience a substantial decline in the pheasant population this year.

The timing and quantity of early summer precipitation also plays a direct role in game bird productivity. Success of nests and survival of young is generally best when rain comes slowly and in near average amounts during May and June. Most of the areas in Kansas' primary pheasant range did NOT meet that prescription this year and had little or no precipitation (Figure 1). Additionally, a few areas where there was reproductive success (northwest and northcentral Kansas) received heavy rainfall and/or hail during the peak reproductive period. These hail events are often localized, but in some counties they occurred multiple times, causing reduced production. Counties affected by hail include portions of Norton, Graham, and Rooks.

Compared to 2010, pheasant numbers will be considerably lower throughout their range. This will especially be true in northeastern, southwestern, and southcentral Kansas. In those parts of northwestern and northcentral Kansas not affected by one of many severe summer storms, the pheasant numbers will be relatively good compared to other areas of the state but still down from last year. Generally, the best pheasant hunting in 2011 will be north of I-70 in the western half of the state.

QUAIL – The bobwhite breeding population in 2011 was similar to 2010, except for southwestern Kansas, where there were severe declines. However, 2011 summer brood surveys indices were down throughout much of the state for quail, indicating a general decline. There were some indications of higher reproductive success in the northcentral, southcentral, and southeast parts of Kansas, though good areas may be spotty.

Because quail breed later than pheasants and grouse, early summer moisture that was received may have provided better conditions for nesting and brood rearing activities in central and eastern parts of Kansas. In past years heavy precipitation and flooding associated with summer storms has negatively impacted bobwhite productivity in many parts of central and eastern

Kansas. Fortunately, these conditions were absent this year. Particular counties that reported higher quail reproductive success include Pratt, Reno, Woodson, Phillips, and Rooks.

The best quail hunting will be found throughout the central part of the state. However, extreme southcentral Kansas experienced prolonged drought, likely negatively affecting reproductive success. Quail numbers declined considerably in southwestern and northeastern Kansas likely offering very limited opportunities in those areas this fall. Bobwhite numbers in far northwestern Kansas continue to improve but that portion of the state is at the fringe of the bird's range and densities will still be low compared to central Kansas. Though southeast Kansas may see an improvement in reproduction this year, numbers remain far below historic levels.

PRAIRIE CHICKEN – Kansas is home to greater and lesser prairie chickens. Both species require a landscape of predominately native grass. Lesser prairie chickens are found in west central and southwestern Kansas in native prairie and nearby stands of native grass within the conservation reserve program (CRP). Greater prairie chickens are found primarily in the tall grass and mixed grass prairies that occur in the eastern one-third and northern half of the state.

The spring prairie chicken lek survey indicated that the lesser prairie chicken breeding population was stable compared to the previous year, except at the northern extent of their range in west central Kansas where there were increases in densities. This area is occupied by both greater and lesser prairie chickens. Nesting and brood rearing conditions for lesser prairie chickens were generally not good this summer throughout most of their range due to drought conditions in southcentral and southwest Kansas. It is likely that populations will be down from last year and the best hunting will be in the central and northern portions of the lesser prairie chicken range.

Greater prairie chicken breeding populations were generally down in the eastern parts of the state (Flint Hills), but up considerably in the northcentral (Smoky Hills) and northwest (grasslands in the Northern High Plains) parts of Kansas. In the core of the Flint Hills physiographic region in eastern Kansas, the majority of occupied habitat was burned again this spring leaving little vegetative cover to conceal nests. Periodic burning is essential to prevent woody encroachment into the prairie, but burning the same acreage annually in early spring greatly reduces the potential for successful nesting even when weather conditions are favorable. Conditions were comparatively better for production throughout the northern Flint Hills due to somewhat less prevalent spring burning and more conducive rainfall events. Conditions were good for production throughout most of the Smoky Hills physiographic region that spans across northcentral and northwest Kansas. The best greater prairie chicken hunting should again be found in native grasslands from the northern Flint Hills westward throughout the Smoky Hills.

REGIONAL SUMMARIES

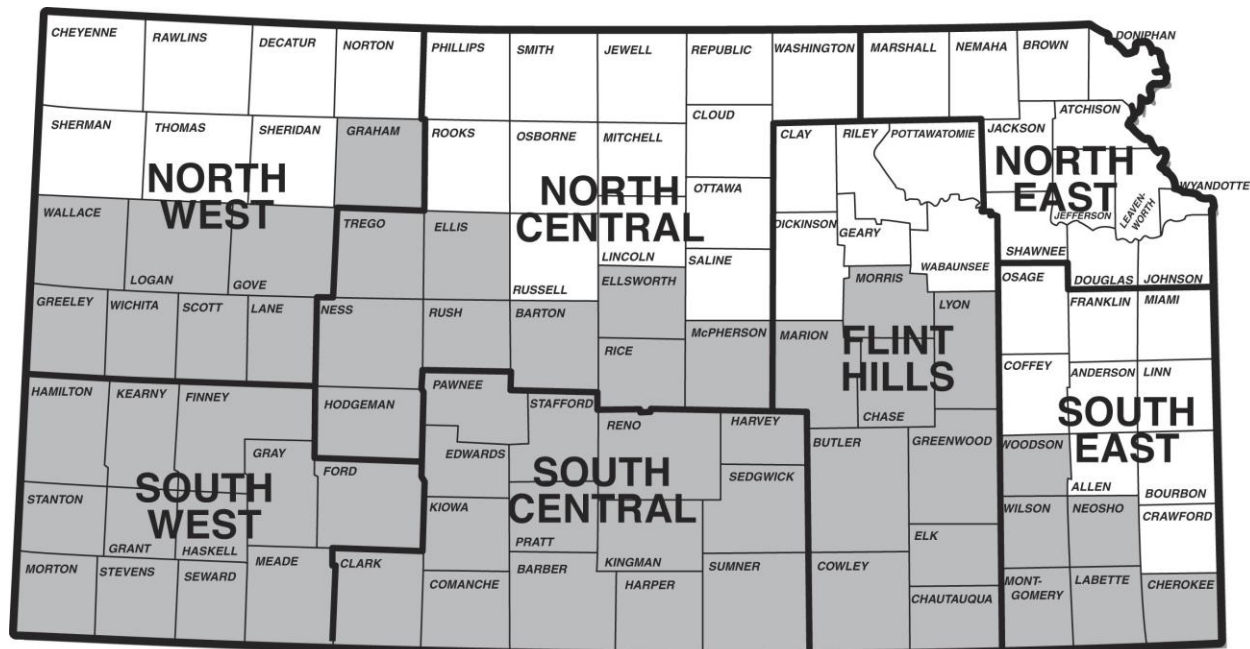


Figure 2. Small game regions for Kansas; grayed counties were open to emergency haying or grazing of Conservation Reserve Program (CRP). Note: normally even during emergency conditions the majority of CRP fields in a given county are left unhayed or ungrazed.

Northern High Plains/Northwest

This region has 11,809 acres of public land, and 342,949 acres of WIHA open to hunters this fall.

Pheasant – Spring breeding populations in 2011 were at all time highs since surveys began in the 1980s. This was surprising since 2010 breeding population levels were also at a record high. Unfortunately, sustained drought conditions from summer 2010 to summer 2011 negatively impacted reproductive success this year. A high percentage of pheasants in this region nest in winter wheat. Lack of adequate nesting cover within winter wheat fields due to drought and early wheat harvest in areas of poor wheat production likely added to the declines that will be seen in 2011 2012. Additionally, severe spring and summer storms repeatedly came through the region, especially the northeast parts, which likely hurt nest and chick survival in localized areas. Notably, this region had the highest breeding population and the highest reproductive success relative to other areas in Kansas, and will likely provide the best opportunities for pheasant hunting this fall. Areas in the southern parts of this region likely had less reproductive success than further north.

Quail – Populations in this region have been increasing in recent years, which likely continued this year. However, this area is at the extreme northwestern edge of bobwhite range in Kansas, and densities are relatively low compared to central Kansas.

Prairie Chicken – Prairie chicken populations have expanded in both numbers and range within the region over the past 20 years. The better hunting opportunities will be found in the central

and southeastern portions of the region in native prairies and nearby CRP grasslands. Spring lek counts in that portion of the region were slightly improved from last year and nesting conditions were fair this year.

Smoky Hills (Northcentral)

This region has 75,576 acres of public land, and 304,986 acres of WIHA open to hunters this fall.

Pheasant – The Smoky Hills breeding population also increased this year from 2010. However, drought conditions followed by severe summer storms in June and July hampered reproductive success in the region. Though pheasant populations will be lower than last year, habitat conditions did fare better than areas further south, and some production occurred. Next to the Northern High Plains, this region had the best production for pheasants this year. There will be locally good areas where conditions were conducive to pheasant reproduction. Areas in the northern parts of this region will likely provide the best hunting opportunities.

Quail – Breeding populations were relatively stable compared to last year in this area. Some areas showed improvement in young to adult ratios, indicating improved reproduction. Phillips and Rooks counties will likely provide good hunting opportunities. Quail breed later in the summer than pheasants or grouse, and precipitation in June improved habitat conditions in the central and eastern parts of this region. Anecdotal reports from landowners indicate possible improvements in quail densities in the northern portions of the Smoky Hills, though these reports are often localized situations.

Prairie Chicken – Greater prairie chickens occur throughout the Smoky Hills where large areas of native rangeland occur as well as some CRP. This region includes some of the highest densities and greatest hunting opportunities in the state for greater prairie chickens. Spring counts indicated that the number of birds heading into the nesting season was up nearly 25 percent from last year. Heavy May rains came in the northeast parts of the region, likely impacting nest and chick survival. Thus, expect fewer chickens in those portions of the region as a result.

Glaciated Plains (Northeast)

This region has 60,559 acres of public land, and 51,589 of WIHA open to hunters this fall.

Pheasant – Spring crow counts this year showed a 60 percent decline from 2010, due to poor production last summer and deep snow cover this past winter, indicating a much reduced breeding population for this region. Even worse was the reproductive success in the area for pheasants. Unfortunately, declining trends continue for the area, and there will be limited pheasant populations available this fall.

Quail – Breeding populations stayed relatively the same as last year, but reproductive success was dismal this year, and very few quail were detected during the late-summer brood survey. The long term trend for this region has been declining, largely due to unfavorable weather

conditions and degrading habitat. Hunting opportunities for quail will be limited this fall in this region.

Prairie Chickens – Very little prairie chicken range occurs in this region, and opportunities are limited. The best areas are in the western edges of the region, where large areas of native rangeland occur.

Osage Cuestas (Southeast)

This region has 80,759 acres of public land, and 23,645 acres of WIHA open to hunters this fall.

Pheasant – This region is outside the primary pheasant range, and little hunting opportunity is available. A few birds can be found in the northwestern portion of the region.

Quail – Breeding populations were relatively stable from 2010 to 2011 for this region, though long term trends have been declining. Most summer population indices revealed declines this year through much of the region. However, young per adult ratios and brood size increased substantially from 2010. Drought was severe in the southern portions of the region, which likely hurt reproductive success. Vegetative conditions in the northern parts of the region fared much better, and reproduction was likely fair to good in these areas.

Prairie Chicken – Greater prairie chickens occur in the central and northwest parts of this region in large areas of native rangeland. Breeding population densities were down nearly 40 percent from last year, and opportunities may be limited this fall in the region. Infrequent fire frequency has resulted in woody encroachment of native grasslands in the area, gradually reducing the amount of suitable habitat.

Flint Hills

This region has 128,371 acres of public land, and 61,356 acres of WIHA open to hunters this fall.

Pheasant – This region is on the eastern edge of pheasant range in Kansas, and well outside the primary range. Pheasant densities have always been relatively low throughout the Flint Hills. Spring breeding populations were slightly down from 2010, and reproduction was limited this summer. The best pheasant hunting will be in the northwestern edge of this region.

Quail – This region contains the second highest densities of bobwhite in Kansas. The breeding population in this region was stable compared to 2010, and the long term (since 1998) trend has been stable as well. Reproductive success was likely low in the southern half of the region due to excessive heat during the nesting and brooding period and prolonged drought; therefore, hunting opportunities will be limited in those areas. The northern half of the region had better vegetation conditions, and reproductive success was likely higher, providing fair to good opportunities this fall.

Prairie Chickens – The Flint Hills is the largest intact tallgrass prairie left in North America. It has served as a core habitat for greater prairie chickens for many years. Since the early 1980s, annual spring burning of rangelands at extremely large spatial scales has consistently reduced nest success in the area, and prairie chicken numbers have been declining in this region. However, more periodic burning in the northern portions of the region provides more habitat for nesting and brooding activities, and populations have fared better as a result. Infrequent fire on the fringes of the Flint Hills is even more problematic than annual spring burning because of woody vegetation encroachment. Weather conditions during the reproductive period were generally good in the northern portions of the region, and the best hunting opportunities will be in these areas. Additionally, Butler County showed a significant increase in spring lek counts this year, however drought conditions and excessive heat throughout much of the county may have negatively impacted reproductive success.

Southcentral Prairies (Southcentral)

This region has 19,534 acres of public land, and 80,521 acres of WIHA open to hunters this fall.

Pheasant – The breeding population declined about 20 percent from 2010 to 2011 in this region. Prolonged drought and very poor vegetation conditions resulted in poor reproductive success this year. All summer indices showed a much reduced pheasant population in this region, and there will be limited hunting opportunities this fall.

Quail – The breeding population was up nearly 10 percent this year, and long-term trends (since 1998) have been stable in this region. This region currently has the highest densities of bobwhite in Kansas. While prolonged drought has severely affected this region, and most indices were declining this summer, young per adult ratios increased, and brood size stayed the same as last year. Counties like Reno and Pratt in the northern parts of the region will likely have better opportunities than those in the extreme southern areas. This region will likely continue to provide fair to good quail hunting opportunities this year.

Prairie Chicken – This region is almost entirely occupied by lesser prairie chickens. The breeding population generally declined from 2010 to 2011; however, breeding densities were up nearly 40 percent in Kiowa County. Reproductive conditions were not good for the region due to extreme drought and heat, and production was likely limited. The best hunting opportunities will likely be in the sand prairies south of the Arkansas River.

Southern High Plains (Southwest)

This region has 2,904 acres of public land, and 184,937 acres of WIHA open to hunters this fall.

Pheasant – In 2011 the breeding population had a 17 percent increase over 2010. Unfortunately, the record drought and near failure of the winter wheat crop of the region hampered the potential of this area. Reproductive success was dismal in this region, and only a few broods were observed during summer surveys. The hunting opportunity will be poor, with the majority of birds being carryover birds from last year and hunting success will be reduced compared to last fall.

Quail – The breeding population in this region tends to be highly variable depending on available moisture and resulting vegetative conditions. The region saw a 300 percent decline in breeding populations from 2010 to 2011. The severe drought from last fall through the summer supported little, if any, reproductive success for the region. Hunting opportunity will be extremely limited this fall.

Prairie Chicken – While breeding populations in the eastern parts of this region were generally stable or increasing, areas of extreme western and southwest portions (Cimarron National Grasslands) saw nearly 30 percent declines this year. Drought conditions were extreme in this region, and reproductive success was likely very low. Hunting opportunities in this region will be very limited this fall.