

THE PRAIRIE CHICKEN AND SHARP-TAILED GROUSE IN EARLY WISCONSIN

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Some of our most interesting and formerly abundant game birds have reached extinction or now maintain precarious existence. The subjects of this paper, the prairie chicken (*Tympanuchus cupido americanus*) and the sharp-tailed grouse (*Pedioecetes phasianellus campestris*), were so abundant a century ago as to play an important role in the realms of food and sport. As remarked by W. W. Cooke,¹ who came to Buffalo County in 1856: "Of the prairie chicken and grouse family, what an abundance nature furnished us!" Today the sharp-tailed grouse is in no danger of extinction, thanks to suitable habitat, but the prospect for the prairie chicken is by no means hopeful for the distant future.

The investigation of the status of the two species of grouse in Wisconsin in the early days was initiated in the belief that the history of any species has intrinsic value. The main objective, however, was the hope that information might be drawn from the study that would aid in increasing the population beyond the point of danger, or indicate the probable futility of the effort.

PART I. THE PRAIRIE CHICKEN

Original Range. The determination of the range of the prairie chicken or pinnated grouse prior to settlement for agricultural purposes is extremely difficult. Accuracy is not possible for several reasons. The sharp-tailed grouse occurred throughout the state and is so similar in appearance to the prairie chicken that no distinction was made by the casual observer even in the southern portion of the state where their ranges overlapped. Few trained observers visited the state and even their statements are occasionally of doubtful accuracy. Another difficulty was the relatively slight difference in habitat and habits. The

prairie chicken was called locally "prairie chicken," "prairie hen," "grouse," "moor-hen," and "whirring pheasant." The latter name was used by the early French inhabitants.

The inclination to fix the original northern range of the prairie chicken below its probable limit in the upper Mississippi Valley is due largely to Coues.² He was informed by Dr. J. F. Head that, in 1853, the prevailing if not the sole grouse in the vicinity of Fort Ripley (Crow Wing County) was the sharp-tailed grouse; and that the first pinnated grouse was killed in September, 1873. While these observations were accurate prob-

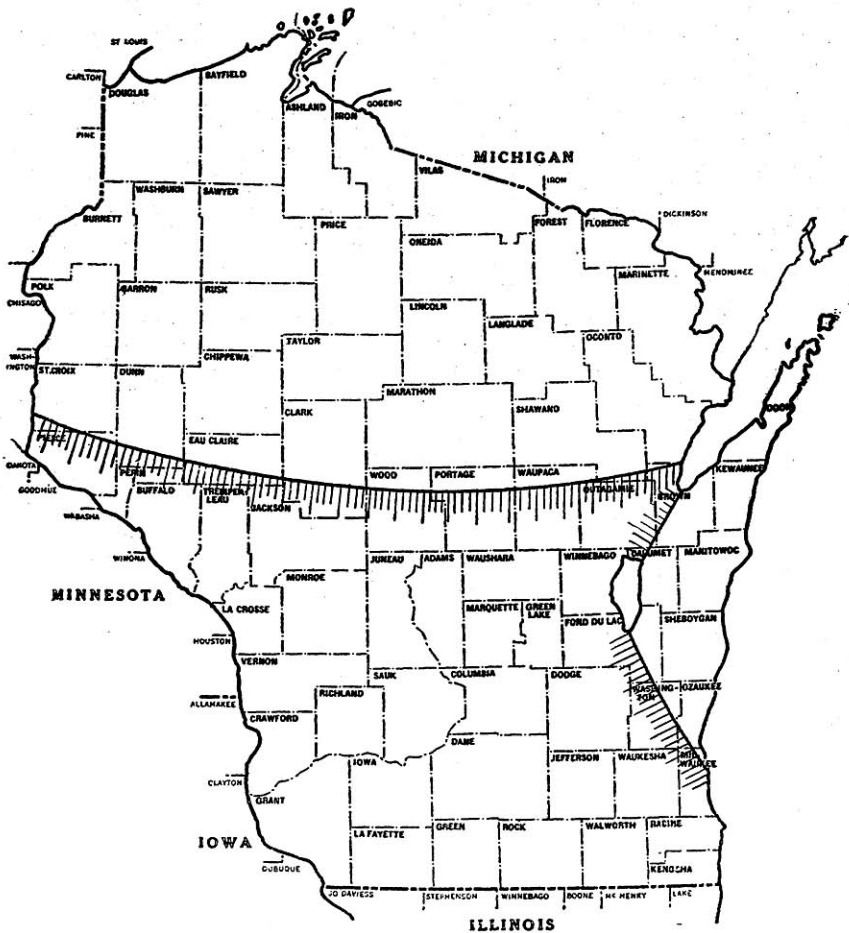


Fig. 1. Probable original breeding range of the prairie chicken in Wisconsin.

ably for that particular locality, it cannot be inferred that the prairie chicken was absent from the prairies of southern Minnesota.

Against this statement may be placed that of "Raven"³ who hunted in Minnesota in the fall of 1860: "After leaving St. Cloud, which is seventy-five miles northwest from St. Paul, along the valley of Sauk River we began to find the sharp-tailed grouse; and farther west they became still more abundant, while the pinnated nearly disappeared."

The situation in Wisconsin was quite similar. T. S. Van Dyke⁴ followed the prevailing opinion that in the early days in Minnesota and Wisconsin the sharp-tailed grouse was the common bird of the prairie while the prairie chicken was seen rarely; and that agriculture brought about a complete reversal. With commendable caution, however, he adds that it is uncertain if the increase of the prairie chicken was "actual or apparent." Thure Kumlien, in 1840, found the sharp-tailed grouse to be the common grouse of the prairies and was very abundant in southern Wisconsin. He resided in the state several years before seeing a specimen of the prairie chicken.⁵ There is little evidence that he was familiar with conditions outside the vicinity of Lake Koshkonong, hence the opinion should be considered of local value only.

The first incontestable record of the prairie chicken in the Lake Michigan area, and in fact the first definite description of the species, is due to Marquette.⁶ He spent the hard winter of 1674-75 on the present site of Chicago. His man Jacques shot a "partridge" having two tufts of feathers, as long as a finger, on the sides of the neck where there were bare spots.*

In travelling up the Illinois River in August, 1821, Schoolcraft⁷ flushed the "prairie hen or 'whirring pheasant'." Ten years later in crossing the prairies of southern Wisconsin from Galena to Fort Winnebago, Wisconsin, he⁸ was "often startled by the flocks of the prairie-hen rising up in his path."

Southwestern Wisconsin was visited by General Smith⁹ in 1837. Here he found the prairie chicken very numerous. The

* "Jacques apporta un perdix qu'il avoit tuez, semblable en tout a celles de France, excepte qu'elle avoit comme deux aislerons de 3 ou 4 aisles longues d'un doigt proche de la teste, dont elles couvrent les 2 costez du col ou il n'y a point de plume."

reason for assuming that this was the pinnated grouse is his belief that it was identical with the "Long Island grouse" (heath hen). Charles Rodolf,¹⁰ in 1834, settled at the present site of Wiota, Lafayette County. At that time he found game abundant: "grouse [sharp-tailed], prairie chickens [pinnated], pheasants [ruffed grouse], quails."

The prairie chicken, according to Hoy,¹¹ and Barry,¹² was abundant in the Racine region in the early '50s. There is good evidence that it was numerous prior to the time when agriculture could have been a determining factor. Quarles¹³ wrote from Southport (Kenosha) on August 28, 1838: "It is 3 years since the first settler came in. . . . Prairie hens are very plenty—They resemble a pattridge [ruffed grouse] but have short tails and are much larger." Also, Burch¹⁴ wrote from Southport, in 1842, that "prairie hens" were plentiful.

The northern range of this grouse on the prairies bordering the Mississippi is not determinable easily. Hoffman,¹⁵ while in Illinois, called the pinnated grouse both prairie hen and grouse. On February 12, 1834, he wrote from Prairie du Chien: "The grouse now keep in large packs near the garrison." The prairie at Prairie du Chien at that time was virtually a large common. The great winter assemblages were characteristic of the species.

Bunnell¹⁶ came to Trempealeau in 1842. In September of the following year, he went up the Trempealeau River to hunt elk on Elk Creek, on the "prairie slopes" of which he killed some "pinnated grouse." This statement is not so convincing when it is considered that in his list of the birds of the region, only the pinnated grouse is mentioned. The sharp-tailed grouse was certainly present also and probably more numerous. At the time of Bunnell's arrival, James Reed was settled at Trempealeau. Grignon¹⁷ says of Reed: "I have seen him kill eleven prairie chicken in twelve shots, in the trees on the island across from Trempealeau."

At La Crosse,¹⁸ in the fall of 1857, it was considered noteworthy that prairie chickens were scarce that season east of the Mississippi, but plentiful forty miles west of it in the neighborhood of Chatfield, Minnesota. In 1859, 75 prairie chickens were purchased at La Crosse, the birds having been killed in the "openings" above Bangor.¹⁹ Prairie chickens were abundant at La

Crosse²⁰ in 1861, and in October were *migrating* over the town. The October migration also was characteristic of the species.

The pinnated grouse was in Pierce County at least by 1856 for it is stated in that year: "Pheasants [ruffed grouse], grouse [sharp-tailed], and chickens [pinnated] are also very plenty."²¹ In 1855, "prairie chickens" were plentiful and cheap at Hudson, St. Croix County.²²

There was an abundance of the "prairie chicken and grouse family" at Gilmanton, Buffalo County, when Cooke¹ settled there in 1856. Cartwright²³ hunted on the Red Cedar River in the fall of 1857. One day a companion shot "a big pile of prairie chickens and partridges."

The prairie region of central Wisconsin appears to have been inhabited by pinnated grouse since the advent of settlement. Hoyt's²⁴ map of 1861 shows a strip of prairie extending to the bottom of Green Bay and along the western shore. Biddle^{24a} states that the prairie hen was abundant at Green Bay in 1816. While at Green Bay in August, 1834, Bishop Kemper²⁵ was presented with a wild goose and a "prairie hen." Col. Whittlesey²⁶ travelled from Green Bay to Galena, Illinois, in 1832. In passing up the Fox River his "path generally lay through a wild pasture, well stocked with the prairie hen." South of Portage he "started a plenty of grouse."

In the autumn of 1835, Featherstonhaugh²⁷ was at Fort Winnebago (Portage) and in the course of a walk flushed "several very large grouse (*Tetrao cupido*)."²⁷ This statement would be highly satisfactory were it not for the fact that later in the autumn he found grouse abundant along the Minnesota River and considered them to be *Tetrao cupido*. They rose "booming and screaming." It has been my experience that the sharp-tailed grouse is the noisier of the two species when flushed. In May, 1836, he returned to Wisconsin and in the vicinity of Blue Mounds frequently flushed the "prairie hen" from her nest.

In 1840, Haraszthy²⁸ travelled from Madison to Lake Winnebago and wrote: "While crossing this marvellous region . . . thousands upon thousands of prairie chickens, partridges, and pheasants flew up before us continuously, and we needed all such game for this area is unsettled, and we were obliged to get our food with guns."* Richard Dart's family was the first to settle

* Mr. Kliman, the translator, informs me that it is impossible to translate more accurately the Hungarian names of the birds, *vadtyuk*, *fogoly*, and *facsan*. *Vadtyuk* means literally marsh or moor hen.

in Green Lake County. Prairie chickens were plentiful when he arrived in 1840.²⁹ Their boat was pulled by error into Rush Lake. In order to make camp it was necessary to wade the broad marshes during which procedure they saw flocks of ducks and "prairie chickens."

Captain Mackinnon³⁰ hunted at Lake Winnebago in 1851. He did not shoot the "vast prairies" on the western side of the lake that he considered must be swarming with grouse; however, he stated that he had no difficulty in killing as many as he desired regardless of the direction chosen. He made this significant statement: "The few settlers who have recently taken up land on these wild meadows, complain much of the increase of grouse. It is indeed a singular fact, that game increases rapidly with the first settlement of a new country. When, however, the population arrives at a certain point, the game as rapidly decreases, and often in America disappears altogether." Proof of the presence of the prairie chicken is found in a statement of the same year for the vicinity of Oshkosh: "Grouse and prairie chickens are superabundant."³¹

Habits. There are few if any habits that distinguish sharply between the two species of grouse. The prairie chicken in the west was found most frequently in the grasslands and the sharp-tailed grouse in brushy areas and oak openings. Wilson³² quotes Dr. S. L. Mitchell extensively on the habits of the heath hen, a very close relative of the prairie chicken, on Long Island. The latter at the time was largely a bushy plain. He states: "On frosty mornings and during snows, they perch on the upper branches of pine-trees. They avoid wet and swampy places; and are remarkably attached to dry ground. The low and open bush is preferred to high shrubbery and thickets. Into these places, they fly for refuge when closely pressed by the hunters . . ."

The Kentucky "barrens" in which the prairie chicken once occurred abundantly was a brushy area, the name connoting merely the absence of large trees. Michaux,³³ who passed through the region in 1802, found it clothed with grass two to three feet high and small trees. Another traveller³⁴ describes the cover as hazel brush, grass, and small trees.

The perching habit is well developed in both species of grouse.

Audubon³⁵ remarks on the prairie chicken flying across the Ohio River and "alighting at once on the highest trees with as much ease as any other bird"; and that during severe weather it was known to roost at a considerable height in trees. Blane³⁶ considered the "prairie fowls" to be very similar to the Scotch grouse, but differing in the singular respect that when flushed they would alight upon a fence or tree, if available. In the winter of 1849-50, Marsh³⁷ shot many prairie chickens in De Kalb County, Illinois. They alighted frequently on the house, the straw roof of the prairie stable, and the fence of the cow-yard. In 1849, John Muir³⁸ came to Kingston, Green Lake County, Wisconsin. He mentions that about sundown the prairie chickens flew to roosting places in the tall trees. This species had the singular habit in autumn of alighting on telegraph wires, at Boonesboro, Iowa, sometimes in great numbers.³⁹ Incidentally, when telegraph wires were first installed in the Chicago area, prairie chickens were killed frequently by striking them. Five birds from one flock were killed in this manner.⁴⁰

It is evident that the perching trait was about as well developed in the prairie chicken as in the sharp-tailed grouse.

The heath hen is stated to have avoided wet situations.³² This trait is not pronounced. More recently, Johnson⁴¹ mentions "their known dislike to marshes or places that are naturally wet," but that at the present time they are forced to use them to some extent. On the other hand, Newell⁴² states that when northwestern Iowa was first settled they nested in the sloughs as well as upon the uplands. Dart,²⁹ in 1840, in wading through the muddy marshes surrounding Rush Lake, flushed prairie chickens. In 1844, the birds were not as plentiful as usual on the low prairies in the immediate vicinity of Chicago, but were obtainable on the higher ground in any quantity.⁴³

Both species resort frequently to damp situations. Schurz,⁴⁴ hunting near Watertown in August, 1855, had no success until evening when a "wet tract" was reached. In the fall of 1868, at Fond du Lac,⁴⁵ prairie chickens were scarce except near streams and woody coverts, only a few being found in open ground. It is not uncommon at the present time to find them using a booming ground where there is standing water.

Migration. The migration of the prairie chicken was formerly

a regular phenomenon. Audubon³⁵ mentions that during severe winters the flocks at Henderson, Kentucky, were increased by others that "evidently came from Indiana, Illinois, and even from the western side of the Mississippi." Woods⁴⁶ wrote that these birds visited Gallatin County, Illinois, in the winter but went north in summer. It is also stated by Thomas⁴⁷ that the species was seen rarely in the region of the lower Wabash River in summer but was very common in winter.

Writing of the migration of the prairie chicken in Iowa, in 1888, Cooke⁴⁸ states that large flocks migrated in the fall from southern Minnesota and northern Iowa to southern Iowa and northern Missouri. He was the first to mention that only the females migrate. There are insufficient data to permit acceptance of differential sex migration as a general law. It is difficult to determine the distances migrated. The evidence is for a limited shifting of the entire population southward. The territory left by the birds that crossed the Ohio River was occupied probably by the birds immediately to the northward, the movement continuing step-wise to the limit of the northern range.

It is to be expected that the migration would be most noticeable in the northernmost region. As a matter of fact this migration was recognized at a comparatively early date in Wisconsin. In 1856, it was stated for the Milwaukee⁴⁹ region: "We have seen in early winter, thousands in a pack, when, for some days before, we had not met a single bird." In connection with the destruction of eggs and young by wet weather in spring, the writer remarks pertinently: "Then however, the damage is repaired to the general stock by the advent of whole colonies of old birds in the spring, from somewhere South. We believe that many leave here after the first frosts and go farther south, and we know that in the spring they come from the South, sometimes in very great numbers, to prepare for breeding."

In March, 1853, a flock of ten prairie chickens flew over East Water Street, Milwaukee,⁵⁰ travelling west. Just twenty years later they were flying over Racine.⁵¹ Major Tenney,⁵² who came to Madison in 1845, repeatedly shot prairie chickens on the Capitol Square. It is probable that these were migrating birds since most of the present site of Madison was originally heavily wooded.

The fall migration usually took place in October. Two are recorded for La Crosse. For 1861, we read: "Every morning hundreds of fat prairie chickens are flying over and through the city, affording fine sport for our gunners. This morning one of our neighbors shot four from his wood pile as they flew over."⁵³ Again, for 1863: "Prairie chicken . . . are very plenty in the city now. Every morning hundreds of them are flying about, skimming along over barns, darting past the house doors and alighting on garden fences. This morning we should think at least fifty men within the city limits were out with shot guns, popping away right and left, bringing a bird nearly every shot."⁵⁴

The movement in this region was to the southwest. Webster⁵⁵ mentions that it is generally recognized that many of the prairie chickens that winter in Iowa, come from Wisconsin, Minnesota, and the Dakotas. Another writer⁵⁶ states that while a large number wintered near Fort Dodge, Iowa, they left in spring for Minnesota and Wisconsin.

It was not uncommon for the birds to alight on buildings in town during the fall migration. On October 9, 1871, one alighted on the roof of a store in Menomonie.⁵⁷ Six perched on the ridge of the German M. E. Church in Madison on October 27, 1879.⁵⁸ In November of the same year, prairie chickens were flying about the streets in Janesville. It was recognized generally that cool or cold weather induced the fall migration and a considerable shifting of the winter residents. In January, 1873, during a period of cold weather, very large flocks of prairie chickens flew over Eau Claire⁶⁰ for several days.

Food. There are relatively recent studies of the food habits of the prairie chicken, but no one seems to have investigated the subject on the virgin prairies. Legumes, some of which thrive best under annual burning, and other plants, typical of the prairie and its margins, that produced seeds of potentially high food value were:⁶¹

- Wild Pea (*Lathyrus*), various species
- Wild lupine (*Lupinus perennis*)
- Psoralea (*Psoralea esculenta*)
- Lead-plant (*Amphora canescens*)
- False indigo (*Amphora fruticosa*)
- Prairie-clover (*Petalostemum candidum*; *P. purpureum*)

Trefoil (*Desmodium acuminatum*; *D. canadense*)
 Ragweed (*Ambrosia artemisiaefolia*)
 Sunflower (*Helianthus*), various species
 Climbing false buckwheat (*Polygonum scandens*)
 Compass-plant (*Silphium laciniatum*)
 Prairie dock (*Silphium terebinthinaceum*)
 Acorns (*Quercus*) various species

Of the above plants, only the seeds of *Ambrosia* and *Polygonum* would be available in quantity when snow covered the ground.

The scarcity of prairie chickens at Fond du Lac⁶² in 1867 was attributed to the eating of potato bugs by which they were poisoned. This curious opinion prevailed for several years. The Milwaukee *Herold* (March 20, 1873) published a letter from New Ulm, Minnesota, in which the writer stated that he had examined the crops of prairie chickens. Grain was absent, but they were filled with potato beetles and the seeds of *Chenopodium ambrosioides*.

The food problem was not so simple in winter and there has been considerable justifiable speculation on what the prairie chickens subsisted. Audubon³⁵ mentions that they alighted on the trees along the margins of the large rivers to eat grapes, and the leaves and berries of the mistleto. He also saw them alight in such numbers on the tops of sumach bushes, to eat the seeds, that the bushes were bent by their weight. The wild grape grew in great abundance in Wisconsin, particularly on the islands and banks of the Mississippi and other streams. The sumach was also common.

During severe weather when snow covered the ground and rendered most seeds unavailable, the prairie chicken resorted to budding. Schmidt⁶³ states it was thought at first that the prairie chicken did not bud extensively in Wisconsin, but that more recent observations show that they eat buds and catkins throughout the winter. Audubon³⁵ mentions damage to fruit trees in winter by the birds feeding upon their buds: "I have counted more than fifty on a single apple tree, the buds of which they entirely destroyed in a few hours."

In the winter of 1827-28, Fonda⁶⁴ carried the mail from Green Bay to Fort Dearborn (Chicago). Leaving Milwaukee,

he and his companion turned west to the Des Plaines River. It was the month of January and he states: "This led through wide prairies and some large groves. Grouse were to be seen budding on the trees and we killed abundance of them as we passed along. The grouse with now and then a fish caught in the shallow rapids, formed our only food for several days." Presumably these were pinnated grouse for he mentions subsequently the preparation of "a couple of grouse (prairie-hens) for supper."

It is stated by Muir⁶⁸ that, in Green Lake County, the prairie chickens fed in the cornfields until the snow came, then they ate the buds of birch and willow. In December, 1872, they were eating "poplar" buds in Polk County,⁶⁵ and during the severe winter of 1874-75, "pinnated grouse" fed on poplar buds at Montello, Marquette County.⁶⁶ In March, 1883, they were eating birch, elm and other buds in the swamps near Dodgeville.⁶⁷

The problem of the winter diet of the prairie chicken was investigated recently by Hamerstrom.⁶⁸ The logical conclusion was reached that the species can subsist on a diet of low nutritive value; and that it is unnecessary to search for indigenous, highly concentrated foods, such as acorns and leguminous seeds.

Effect of Agriculture. It is a generally accepted opinion that the prairie chicken increased greatly with the advent of agriculture, until the latter engulfed the greater portion of the prairie areas. It is difficult to find convincing support for this view. In autumn, during the hunting season, the birds left the prairie in large part and concentrated in the vicinity of corn and stubble fields. This influx could give a false impression.

Opinions varied greatly as to the extent of the increase. Kenicott⁶⁹ states merely that for a few years after the settlement of the Chicago area, prairie chickens increased rapidly. In 1847, a Chicago resident having fourteen years' acquaintance with the prairies, thought that they had more than doubled in that time.⁷⁰ At the same time and place another observer thought that the increase was eight-fold.⁷¹ Thurston⁷² came to Rockford, Illinois, in 1837, and mentions that during a period of five years the prairie chickens increased more than ten-fold due to a better food supply. If the observer arrived in a region at the bottom of

a cycle, subsequent increase would be attributed to the most obvious factor, agriculture.

Writing in 1874, Bogardus⁷³ states that the pinnated grouse had learned to use the cornfields in late autumn and, that when he came first to Illinois (1857), they were to be found for the most part in the prairie grass. Subsequent writers have given this statement more importance than it deserves for the use of cultivated ground was old. Hall,⁷⁴ writing with special reference to the Illinois prairies, mentions that in autumn the grouse assemble round the cornfields and wheat-stacks in search of food. A gentleman⁷⁵ who settled in Kenosha County, in 1845, writes of the thousands of prairie chickens that collected in the fields of corn and buckwheat. In September, 1838, Captain Levinge⁷⁶ came to Chicago to hunt pinnated grouse. About ten miles west of Chicago, eight brace were shot, the birds being described accurately. His destination was the Fox River where grouse were stated to abound on account of the cultivation along its banks. Here game was found in great quantity.

It has been inferred from the statement of Bogardus that the prairie chicken had to learn to eat corn.⁷⁷ It is doubtful if this was the case in the sense that any appreciable time was required. Thomas,⁴⁷ writing in 1816, states that the prairie hen is fond of corn and grain. During a heavy snow storm in January, 1820, in what is now Gallatin County, Illinois, nearly all the grain in a field of standing corn was devoured by prairie chickens and other birds.^{46a} In central Illinois, the prairie chickens ate so much of the corn standing in the fields as to be greatly injurious.⁶⁹ The Indians raised sufficient corn so that it could not have been a novelty. It was estimated that, in 1831, 1832, and 1833, they produced not less than three thousand bushels in the vicinity of Madison,⁷⁸ Wisconsin.

Corn as a food is conspicuous since it was usually the first crop raised by the settler, and because it could be left standing throughout the winter without being injured by the elements. Normally corn was planted on the freshly broken prairie and was called "sod corn". A hole was punched into the sod into which the corn was dropped. Though there was no cultivation, no grass and only a few weeds grew the first year.⁷⁹ A single plowing was sufficient to destroy the original prairie grasses and then weeds became an annual pest. The increased supply

of weed seeds must have been a potent factor in drawing the birds to cultivated ground. Bogardus^{73a} mentions that there was a great variety of foods obtainable in the cornfields, but that they preferred to feed in flax stubble and patches of navy beans rather than in cornfields. It has also been stated that the original prairie could not be mowed for hay for more than a few years before the weeds took possession.⁸⁰ Many farmers broke more prairie than they could cultivate subsequently so that hundreds of acres were covered with "a rampant growth of weeds."⁸¹

Burning of the Prairies. An agent most destructive to the prairie chicken was the prairie fire. It can be argued with plausibility that, for a period, agriculture contributed more to a peak population for this species by reduction of burning than by an increased food supply. However occasional burning was absolutely necessary for maintenance of the prairie; otherwise large areas would have reverted to forest and brush. The Indians fired the prairies from time immemorial. Fall fires not only destroyed food and winter cover but nesting cover as well for the following spring. Late spring fires destroyed the nests. Prevention and restriction of these fires were of prime importance to the first settlers.⁸² Frequently there were heavy material losses in the shape of stacked hay and grain, fences, and even farm buildings.

The bleakness and lack of life on the burned prairie has been mentioned by many writers. Hoffman^{15a} crossed a snow-free burned prairie in winter near Hennepin, Illinois. On reaching broken ground, where there was some shrubbery, a flock of grouse arose every moment. Due to the burning of the country for a great distance, Featherstonhaugh^{27a} found the grouse congested along the banks of the Minnesota River where there were water and seeds of various kinds.

The burning of the prairie in late spring was considered by Kennicott⁶⁹ as highly injurious, due to destruction of the eggs. Some farmers recommended burning in the spring, after nesting had started, in order that there should be fewer young birds in the fall to eat the grain.⁸³ A few years later, the farmers were urged to seek some protection for the prairie chickens since they contributed greatly to the destruction of grasshoppers that were becoming very abundant on the Illinois prairies.⁸⁴

Judd⁸⁵ was informed by E. W. Nelson that the farmers in northwestern Illinois, in the early seventies, burned the prairies in the spring after nesting had started and afterwards gathered large numbers of eggs for household use. The same situation existed in Iowa. Prairie chickens were scarce in Iowa in the fall of 1867. The reason given was that owing to the late, wet spring, the prairies were not burned until nesting had started.⁸⁶ A prairie fire in 1868 or 1869 ruined eggs by the thousands.⁸⁷ As late as 1896, Johnson⁴¹ stated that "the habit of farmers to burn off the old grass from all the sloughs, ditches and swamps, about the time the first clutch is laid, has been, and is the means of destroying more birds than all the guns in the state." Prior to the settlement of northwestern Iowa, Newell⁴² saw on the average four nests to the acre after a spring burning.

The frequency of fires can be judged from the remarks of Grinnell.^{87a} In January 1845, he passed over a large prairie in Dodge County that had just been burned. Shortly afterwards he arrived at a marsh that the Indians were firing to drive out the game. While at Racine in April, the burning prairies were "lighting up the western sky." Skavlem^{87b} has left a vivid picture of the effects of burning in late spring in Rock County. Often the virgin prairie was guarded from fire and not burned until prior to "breaking" in order to destroy the vegetation as completely as possible. The operation began the latter part of May and continued into July. The prairie birds, such as the prairie chicken, concentrated in the unbroken prairie to nest so that the burned area presented a dismal array of scorched eggs and the charred bodies of young birds. During the '50s when it was customary to shoot grouse as early as July there are frequent references to the small size of the young birds. On August 10, 1854 birds were offered for sale in Milwaukee "hardly as large, and certainly not as heavy as good quails."⁸⁸ It is reasonable to suppose that second nestings were due largely to burning of the prairies in April and May. Cold, wet springs were destructive to the young but if only one or two of a brood survived the female would not nest a second time.

Hunting and Trapping. Hunting with dog and gun began in late July.⁸⁹ The young prairie chickens, killed so easily at this season, were considered a delicacy. Many, however, thought that the bird was not good for the table until September, and

that it was poor sportsmanship to shoot prior to that month.⁹⁰ On the approach of cool weather they were more difficult to secure as they gathered in large packs and were wary. Some asserted that even in early September it was difficult to secure more than two or three brace in a day; and that after the first frost they were scarcely obtainable with dog and gun.⁹¹

In late fall the prairie chickens were found on the trees early in the morning. Bunner⁹¹ mentions that under these conditions it was impossible to secure them except by riding under the trees, or approaching behind oxen or horses. Then they could be killed in great numbers.

When snow covered the ground the prairie chicken took to the tops of trees and hedges.⁹² Gerhard⁶¹ has described the hunter's procedure: "Dressed entirely in white, with his face also painted white, save two great spots below the eyes, which are painted black to absorb the rays of the sun, he manages to advance stealthily within a short distance of the prairie fowls, sitting on the hedges [osage orange]." During a light snow storm, Bogardus⁹³ dropped nine birds from a fence at one discharge.

The number of birds killed by the gun was small in comparison with the many thousands taken by trapping. When snow covered the ground, they came into the barnyards to feed with the domestic fowls and were taken easily. The methods of trapping were numerous, but only two of the devices commonly used will be mentioned. "Atticus"⁹⁴ describes the trap used by the farmers near Racine in 1844. It consisted of a box open at the bottom, the top being covered with slats. The ends were provided with light wicker gates that swung at the top. They could be pushed up easily from the outside but not from the inside. Grain was scattered inside and at the entrances to induce the birds to enter. The tip-up trap is mentioned by Duis⁹⁵ as the "fall-door trap." A rectangular hole was dug in the ground and covered with a board pivoted near the middle. One end of the board rested on the ground while the other end was free. A bird attempting to reach the bait placed on the free end slid into the pit, the board dropping back into place.

Primitive Abundance. Owing to the migratory habit of the prairie chicken, it is desirable to consider first the status of the

species in the region south of Wisconsin. Audubon,^{35a} when he came to Kentucky in 1807, found pinnated grouse so abundant that no professional hunter would deign to shoot them. One winter's morning, a friend of his killed forty for the sake of rifle practice. By 1834, he thought that the species was decreasing at a rapid rate even in the state of Illinois. Thomas,⁴⁷ in 1816, believed the prairie hens to be more numerous in winter along the lower Wabash than quails were in the state of New York. Blane³⁶ remarked that a traveller on the prairies in the vicinity of Albion, Illinois, must be impressed by the "vast number" of grouse. The statement of Hall,⁹⁶ in 1838, is more impressive: "The number of these birds is astonishing. The plain is covered with them in every direction; and when they have been driven from the ground by a deep snow, I have seen thousands—or more properly tens of thousands—thickly clustered in the tops of the trees surrounding the prairie."

The prairie chicken was common also in regions practically untouched by agriculture. Hubbard⁹⁷ was in charge of an Indian trading post near modern Hennepin, Putnam County, Illinois, in the winter of 1818-19. Prairie chickens and quails, though "abundant," were considered a poor diet.

There is little to support the statement of Hatch⁹⁸ that, in Illinois in 1836, a good daily bag for an expert wing shot was ten or twelve birds, while later bags of fifty to sixty, or even one hundred were common. In general there was no shortage of grouse. In McClean County, in the winter of 1834-35, two boys trapped 750 prairie chickens as they came to feed on flax seeds.^{95a} On the morning of January 16, 1834, in La Salle County, the oak trees were so covered with prairie chickens as to remind Hoffman of passenger pigeons.^{15b} At Rockford, Illinois, in 1838, "the prairies were filled with pinnated grouse."^{72a} In July, 1838, in crossing the prairies between Princeton and Dixon, Jones^{79a} saw "innumerable prairie hens."

Some evidence of the abundance of grouse in early Wisconsin was given in the section on distribution. When Rodolf⁹⁹ came to Lafayette County in 1834, prairie chickens were abundant. Writing from Mineral Point, September 6, 1837, General Smith¹⁰⁰ mentioned that "the grouse or moorfowl are constantly flitting across the landscape." General Kellog¹⁰¹ crossed Rock Prairie in September, 1840. His dog accustomed to hunting ruffed

grouse was puzzled at the "immense flocks" of prairie chickens that were flushed. A year later, another traveller in southeastern Wisconsin had indifferent success. A day's travel through the fine prairies bordering the Fox River failed to produce the sight of a deer, prairie chicken, or prairie wolf. Between Janesville and Madison, several covies were flushed, while near Aztalan eight birds were secured.¹⁰² However prairie chickens were by no means scarce that year. They were so plentiful in January, 1842, in the Milwaukee market that they were considered as only common fare.¹⁰³ Live and dead birds sold respectively at 31¼ and 25 cents a pair.

Skill at shooting on the wing was not possessed by many hunters during the first years of settlement, so that it is difficult to judge the population density from hunting data. During a side hunt that took place at Racine in 1836, a Frenchman, one Jambeau, is credited with having killed twenty prairie chickens in a forenoon.¹⁰⁴ A hunt that took place at Kenosha, in 1843, the number of hunters participating being unknown, resulted in the taking of "515 grouse."¹⁰⁵ At this time in the Racine region, it was not considered uncommon for an individual to shoot 20 or 30 birds in an afternoon.¹⁰⁶ In 1844, two men from Hazel Green, Grant County, spent a day on the prairie and shot one hundred "prairie hens."^{87b} A good shot with a well trained dog could kill 50 to 75 birds in a day in the vicinity of Chicago,¹⁰⁷ so that the species seems to have been equally abundant in the two localities at that time.

The number of birds that a hunter killed in a day did not change materially for a period of ten years. Doctor Marsh¹⁰⁸ has recorded the results of several hunts on Howard's Prairie, near Milwaukee. On September 12, 1845, he shot "24 grouse," while on October 21, he and a companion secured but 10 due to the birds being in large flocks and wild. On August 2, 1846, four men killed 60 grouse stated to be two-thirds grown; on August 14, five men killed 65; and on September 15, he obtained 32 birds. In 1847, two men rode out of Milwaukee fifteen miles and returned the same day with 60 prairie chickens. Another party of five men drove twenty miles from Milwaukee and returned the same day with 124 birds.¹⁰⁹

In 1848, individual daily bags on the Chicago prairies ran

from 50 to 80 birds, with claims of 100 to 150 for other portions of the state.¹¹⁰

The potential bag for the Racine region in 1849 was 60 to 90 birds daily.¹¹¹ Hoy,¹¹² in 1852, said that two hunters with one dog generally secured 50 to 80 birds in a day at Racine. Elsewhere he states, that prior to 1858, a sportsman could shoot 40 to 60, or more.¹¹³ Critical examination of the data given above shows that generalizations produced larger daily bags than did cases.

The Decline. It is impossible to make any definite statement as to a peak of abundance. There are insufficient data to prove that agriculture resulted in the great increases assumed by some writers. As mentioned previously, the pinnated grouse were widely scattered over the wild land during the breeding season and assembled near cultivated fields in autumn. It is easier to trace the decline, though obviously this did not occur at all uniformly in point of time throughout the bird's range.

The decline in northern Illinois began about 1850, on the authority of Thurston.^{72b} He states: "The number of pinnated grouse from 1846 to '50, in Winnebago, Boone, and Stephenson counties was prodigious . . . I knew a company of nine, two only being expert shots, to go out in 1846, on Bonus Prairie, Boone County, who brought in over 300 chickens." These birds were shot in a distance of one and one-half miles, the men walking 25 feet apart. The party had but one dog and many more were assumed to have been killed and not found as the grass was knee-high. Thurston and a companion, on one occasion, shot 52 birds in a walk of two miles.

It is not far from correct to assume that the decline started about 1850. In December of that year, a professional hunter appeared in Chicago with 300 prairie chickens and 6 geese that he spent nine days in securing.¹¹⁴ In 1851, judging from game receipts in Chicago, there was "about the usual crop of Grouse."¹¹⁵ There was a noticeable drop in 1854. In the fall of that year, prairie chickens were selling at 20 to 25 cents apiece in the Chicago market, and were considered "scarce and high."¹¹⁶

In Wisconsin, prairie chickens were comparatively scarce in 1853, due supposedly to excessive trapping during the previous winter;¹¹⁷ but the most noticeable decline came about 1855. The

birds were fairly common in certain localities in 1854. In September of this year, three men hunted on Eagle Prairie, near Madison, "the farmers being widely scattered." One flock of 150 birds was seen, and 91 secured in a day's hunt.¹¹⁸ In July, prairie chickens were reported as very plentiful about Madison. One hunter bagged 43 birds within "a few hours," while another shot 143 in a hunt of two days' duration.¹²⁰ Prairie chickens were abundant in the Milwaukee market where they sold for 10 cents apiece. On the other hand they were exceedingly scarce about Racine.¹²²

Prairie chickens were plentiful, in 1855, in the vicinity of Watertown,¹²³ and in a few other localities. Schurz⁴⁴ wrote from Watertown, on August 12, that he and a companion hunted from early morning until nearly sunset, and that their bag contained only two prairie chickens. Had the hunt stopped at this point, the logical conclusion would have been that the birds were exceedingly scarce; but, "at the edge of a wet tract, we suddenly found ourselves in the midst of such a multitude of prairie chickens that we could hardly take time to load. In half an hour our hunting bags were full . . ."

At Madison,¹²⁴ two men shot 128 birds on August 25, while at Oakwood Grove,¹²⁵ Rock County, one man shot 20 prior to 8:00 A.M. These are unusual bags. Three boys at Mineral Point¹²⁶ shot 25 birds within a few hours. This was considered exceptional success in view of the scarcity of this game in the vicinity.

Prairie chickens were offered for sale in quantity at Watertown in 1856.¹²⁷ Nearly every farmer arriving in town in December brought with him "a dozen or more"; but this statement shows that the decline was well under way. Several hundred live birds were offered for sale in Madison, but this was considered "a sight even in our streets."

The year 1857 showed so sharp a drop that it may be considered the low of a cycle. The scarcity was attributed to the severity of the preceeding winters. At Jefferson, the birds were anything but plentiful.¹²⁹ They were scarce also at Janesville,¹³⁰ Madison,¹³¹ Weyauwega,¹³² and LaCrosse.¹³³ In January, 1858, prairie chickens were "unusually scarce" in the Milwaukee market.¹³⁴

Causes for the Decline. It was recognized, as early at least as 1854, that cold wet springs, or heavy rains killed the young birds.¹³⁵ The destruction of eggs and young by the elements was considered as only a seasonal effect.⁴⁹

At this time also it was believed that the severity of the winter was of little influence.⁴⁹ However, when the sharp drop of 1857 arrived, it was attributed to the severity of the past two winters, apparently for want of a better reason.¹³⁰ The severe winter of 1874-5 produced several reports of the decimation of the prairie chickens.¹³⁶ Pond¹³⁷ reported that the day following a temperature of 40° below zero, only one-half of a flock of pinnated grouse returned to their poplars to feed; however, when the shooting season opened, the birds were considered more plentiful than the year previous. There is little evidence that cold alone had a pronounced effect on the population.

The habit of the prairie chicken of roosting beneath the snow was sometimes fatal due to the formation of a crust through which they could not break. In 1881, pinnated grouse were found frozen in the sloughs and marshes at Rosendale, Wisconsin, after the February storms.¹³⁸ A crust that formed on the snow in the northwestern part of the state in January, 1888, is stated to have caused the death of great numbers of prairie chickens. They were found during the subsequent thaw.¹³⁹

The decline of the prairie chicken began before there was any clear evidence for a cycle. The sole tenable cause for the decline is the construction of railways that permitted the rapid transportation of game to Chicago, and thence to the eastern markets. There was much trapping and shooting for the local markets but this was not of prime importance.

The Chicago market was supplied abundantly with grouse, selling at \$1.25 per dozen, in 1845.¹⁴⁰ A market hunter, from April 1, 1847 to April 1, 1848, killed and sold in Illinois 2420 prairie chickens.¹⁴¹ Grouse, about three-fourths grown, were plentiful in July, 1848, at 75 cents a dozen.¹⁴² During the latter part of January, 1850, 5000 prairie chickens were forwarded by express to New York City, and the trade was increasing rapidly.¹⁴³ A year later "thousands" of prairie chickens were being shipped from the Chicago region, there being specific mention of one shipment of 6000 birds from Michigan City, Indiana. Lake

County, Indiana, during a period of six weeks sent 20,000 prairie chickens to Detroit.¹⁴⁴ By 1853, the shipments of quails and prairie chickens had reached such proportions that they were designated by the "cord" and the ton.¹⁴⁵

A shipment of prairie chickens from Wisconsin was received in Washington in February, 1846, where they were sold at one dollar per pair. The species was considered a "*rara avis*" in those parts.¹⁴⁶ Shipments were light, however, prior to construction of the railroads. A line from Chicago reached Beloit in 1853 and Madison in 1864. Another from Chicago to Milwaukee was completed in 1855. The Milwaukee and Mississippi River Railway, begun at Milwaukee in 1849, was extended to the Rock River Valley in 1853 and to Madison in 1854. By 1857, 1858, and 1859, Prairie du Chien, La Crosse, and Fond du Lac, respectively were connected by rail with Milwaukee. The best regions in the state for prairie chickens had been invaded.

The killing of game had reached such heights by 1851 that Wisconsin passed its first game law. This included the protection of prairie chickens from February 1 to August 1. A year later the law was amended to read from January 1, the reason being that in January, 1852, large numbers of prairie chickens had been caught and shipped to New York.¹⁴⁷ The shipments of game birds were so immense that fears were expressed of the possible extinction of certain species.¹⁴⁸ On February 12, 1852, the city of Milwaukee supported the state law by passing an ordinance prohibiting the sale of "pinnated grouse (known as the prairie hen, or prairie chicken)" between February 1 and the first Tuesday in August.

Shipping facilities by rail and water turned hundreds of farmers and their sons into diligent hunters and trappers. As an example of individual activity, Joseph Clason of Beaver Dam brought to Milwaukee on February 1, 1853, 100 dozen quails, 200 prairie hens and 100 partridges, that had been shot and snared by his son.¹⁴⁹ There were heavy shipments of gamebirds, including prairie chickens, from Watertown during the winter of 1854-55.¹⁵⁰ Though extinction was feared for the prairie chicken as a result of the trade,¹⁵¹ little attention seems to have been paid to the law. The birds were marketed in Watertown¹⁵² and many other places in the spring. Subsequently there was some

attempt to enforce the law for in April, 1859, two Norwegians were fined five dollars each and costs for offering live prairie chickens for sale in Madison.¹⁵³

In the winter of 1855-56, "tuns of Quails, Patridges and Grouse" were to be seen hanging in the yard of the Capital House at Madison. Stores had large quantities of these birds for sale throughout January and February.¹⁵⁴ The comparative scarcity of game at Janesville, in 1860, was believed due to the exportation several years previously, of tons of prairie chickens and quails.¹⁵⁵ Scarcity at Madison was attributed to the fact that "since railroads reached us, the prairie chickens have all taken passage east."¹⁵⁶

Cycles. It is probable that cycles are prehistoric, but, in the absence of statistical data, it is impossible to determine if they existed at the beginning of settlement. There are consecutive annual references to the abundance of prairie chickens from 1831 to 1855. The probable reason for this is that "abundance" is an elastic term, the connotation varying with the user. Cycles might have shown less extremes than later, or a regional shortage might have been obscured by immigration.

A note from Racine dated July 18, 1849, states: "The Grouse are always abundant. In August, or the early part of September, you can make a great bag in a day, say from sixty to ninety . . ." ¹¹¹ Nevertheless conditions varied. At Potosi, Grant County, in 1852, grouse were reported to be more numerous than they had been for the past six years.¹⁵⁷ There was the scarcity of birds in the Milwaukee market in 1853, mentioned previously. The following year Bunner¹⁵⁸ wrote from Janesville: "It is said that the birds are not so plenty as they were, and are decreasing annually. This we doubt very much. They are not to be got at so easily, being wilder and more cunning, taking more to corn-fields, where they are perfectly safe, rising earlier than they used to, flying to much greater distances, and taking better care of themselves. You cannot shoot as many as you could once, for these reasons." The scarcity for 1854 was attributed to the heavy rains that killed the young. His statement that when a man can shoot a dozen birds in an afternoon, "it is abundance," is enlightening. A few years earlier this would have been considered an indifferent bag.

In 1856, another writer,¹⁵⁹ mentioned the prairie chicken as a bird that was "certain as well as abundant." The following year there was the first sharp low. That the prairie chicken reached its peak about 1855 is shown by the following: "An experienced hunter arrived in town (Madison) last evening with upwards of 30 prairie chickens, all shot within ten miles of here. Very good work for a two days' hunt. But fifteen years ago [1855] Andrew Bishop would go west about twelve miles, and bring down 75 of the precious creatures in about four or five hours' shooting."

The annual status of the grouse in Wisconsin from 1855 to 1897 is shown in the appendix to this paper. Examination of the data reveals well-defined lows in the years 1857, 1867, 1878, 1887, and 1897. The length of the cycles* varies from 9 to 11 years. The agreement with Criddle's¹⁶⁰ data is unexpectedly good. He found a 9 to 11 year cycle for the sharp-tailed grouse in Manitoba, the lows falling in the years 1897, 1907, 1918, and 1927. This confirms the assumption that the cycle for the two species of grouse is identical. The 1897 coincidence of the lows for Manitoba and Wisconsin must for the present be considered fortuitous. There is no reason to suppose that the lows will be identical chronologically throughout the ranges of the prairie chicken and sharp-tailed grouse.

There is no suggestion in the early literature that disease caused fluctuations in the number of grouse. Writing of the prairie chicken in Illinois, in 1889, Dr. F. H. Yorke¹⁶¹ called attention to the "grouse disease" that appears when the pastures are alive with this game. That same year a sportsman at Menomonie, Wisconsin, seems to have recognized the progress of a cycle, for he wrote: "Birds [prairie chickens] are scarcer this year than last; they were less plenty last year than the year before, and next year they will be fewer than they are now."¹⁶²

A hunter at Plover, Wisconsin, in the autumn of 1886, called attention to what to him was a remarkable phenomenon.¹⁶³ There was an unusual number of wood ticks on the necks of the prairie chickens that he shot, as many as thirty being found on one bird. The grouse cycle reached a low the following year, but several decades passed before any relationship between the tick and disease was recognized.

* Only the average annual population of the state are of value in determining cycles.

The Future. Predictions in many cases prove futile, but the future of the prairie chicken cannot be viewed with optimism. During a residence of 33 years in southern Wisconsin, I have seen this species dwindle until it has become relatively rare. Much valuable research has been conducted during the past 15 years, but the answer to the problem is not in sight.

While agriculture may have increased the population for a brief period, the damage resulting from the destruction of its natural habitat by the same agency can scarcely be repaired. The prairies of the uplands are extinct, and there are few in the lowlands that have not undergone profound change. The result has been to force the species northward into localities that to the best of our knowledge were not occupied in primitive times. The prairie chicken reached Lake Superior due to the felling of the forests and the opening of farms.

Many of the marshes of the Central Plain were drained in the vain hope of obtaining a permanent agriculture. The drained lands, including the abandoned farms, are reverting to brush. There is little hope of recovering even this territory by judicious burning.

A factor that cannot be overlooked is the fact that our prairie chickens are virtually isolated. In primitive times vast flocks moved southward in autumn and returned in spring. It was possible in this way to obtain recruits from other regions. The fall movement through Wisconsin into Illinois, or even into southern Wisconsin, has long ceased. If the migrating flocks consisted largely of females, as is supposed, there must have been a good physiological reason. Localization of the present small population may render the species incapable of surmounting crises. It is clear from the early records that the lows of the cycles were not as severe, nor the recoveries as delayed, as they are at the present time. Whether this is due to cessation of distant migrations or to a more obscure cause remains to be determined.

PART II. THE SHARP-TAILED GROUSE

The original southern range of the prairie sharp-tailed grouse (*Pediocetes phasianellus campestris*) in the Mississippi Valley is known imperfectly. Coues² draws the inference that it once

occupied all the suitable prairie land of Iowa, Wisconsin, and Michigan. Tanner,¹⁶⁴ writing from Burlington, Iowa, in 1837, evidently had this species in mind, when in discussing the prairie chicken he mentions that its habits differ "in some respects from the northern bird of the same kind . . ."

Formerly, it was not uncommon in Cook County, Illinois,⁶⁹ but there is no authentic information that it ever occurred south of the latitude of Chicago. Nelson,¹⁶⁵ writing in 1876, stated that it was then confined to the northwestern portion of the state. The species persisted near Waukegan until 1863 or 1864, when a covey of fourteen birds was secured. Brewer¹⁶⁶ mentions seeing a flock within thirty miles of Chicago but gives no date. The prairie chicken probably outnumbered greatly the sharp-tailed grouse in northern Illinois. Thomas Say, naturalist to Long's Second Expedition, in 1823, mentions that the birds seen between the Des Plaines and the Fox Rivers were *Tetrao cupido*.¹⁶⁷

Range in Wisconsin. The sharp-tailed grouse was to be found actually or potentially in all parts of the state. It has a preference for brushy and park-like areas, and in the prairie regions of southern Wisconsin occurred most commonly in the oak openings. From this habitat it acquired the vernacular name "bur oak grouse." Usually the sharp-tailed grouse was not distinguished from the prairie chicken due to similarity in appearance and habits. There is no question, however, but that at the beginning of the nineteenth century both species occurred in the southern portion of the state. The opinion has prevailed that the sharp-tailed grouse was the dominant if not the sole species up to the beginning of agricultural development, *i.e.*, about 1840. The belief is erroneous and is based on meager data.

It was formerly common near Racine but had become rare by 1852.¹¹² Charles Rodolf¹⁶⁸ settled at Wiota, Lafayette County, in 1834. He mentions that "grouse, prairie chickens, pheasants [ruffed grouse]" were plentiful. Valentine,¹⁶⁹ on the authority of old residents, states that it was found formerly in all the southern Wisconsin counties. An anonymous writer mentions that while traveling in southern Wisconsin, in the winter of 1842, he saw "many of the burr oak grouse, as they are called by the inhabitants, sitting on trees by the road side."¹⁷⁰ They

were observed again the following summer in the region between Milwaukee and Madison: "Their habits resembled those of the pinnated grouse, excepting that they inhabited by choice, the groves instead of the prairies." Another writer mentions it as abundant in 1840-45 in southern Wisconsin and northern Illinois, as far south as Chicago, "always frequenting the timber. . . ."171

The sharp-tailed grouse, according to Kumlien and Hollister⁵ was the common species of grouse on the prairies of southern Wisconsin in 1840 and at that time was extremely abundant. Thure Kumlien, who came to Lake Koshkonong in 1843, resided there several years before he saw the common prairie chicken. It is probable that at this period there were comparatively rapid changes in vegetation and hence in the resident species of grouse. Attention has been called elsewhere to the fact that when burning of the prairie ceased, the surface was covered quickly with a growth of trees.¹⁷² The change that could take place is shown significantly by the following description of an area at Oregon, Wisconsin: "The cover here is getting to be abominable, a perfect tangle of scrub-oak, chokecherry, wild crab-apple, hazel-brush, frost-grape and a variety of briars, with now and then a little patch of tolerably clear poplar for relief."¹⁷³ A prairie inhabited by the prairie chicken could be covered with brush in a few years, and then be taken over by the sharp-tailed grouse; hence, species dominance is of no significance except for the limited area and the particular time under discussion. The two species were respecters of habitat and there is little overlapping in breeding areas even today.

The best statement on the early status of this species was written in 1856 by a Milwaukee sportsman: "Of the grouse of our prairies, two kinds exist in Wisconsin, or did until very lately, the one known to all of our readers, the other very much like it, but with two long tail feathers at the sides of the fan . . . It was once quite abundant within thirty miles of the city, about as much so as the ordinary grouse, but it does not seem to like the presence of mankind so well, and has moved to more distant regions . . ."174

In connection with relative abundance and distribution, there is the following remarkable statement from New Libson, in 1859:

"Mr. L. showed us a fine lot of grouse . . . and until informed by him of the fact, we were ignorant of the presence of this bird in this section. They are a heavier and much prettier bird than the chicken."¹⁷⁵ It is unexpected to find the prairie chicken the predominating species at New Libson at this time.

The early writers were in general accord in believing that the sharp-tailed grouse was a heavier and more handsome bird than the prairie chicken, and of superior flavor. Van Dyke¹⁷⁶ hunted sharp-tailed grouse in the eastern portion of Buffalo County, Wisconsin, in 1870. He mentions shooting a bird, weighing nearly four pounds, that was in every respect a more handsome and imposing bird than the prairie chicken. From a circular area less than 200 feet in diameter, his party secured 27 fully grown birds weighing almost 100 pounds. These weights are far beyond the average. Smith,¹⁷⁷ hunting near Augusta, found that 8 birds weighed exactly 15 pounds, or slightly less than two pounds per bird. This weight checks quite well with the findings of Gross.¹⁷⁸ He gives the average weights of males and females as 1.82 and 1.58 pounds respectively.

Migration. The sharp-tailed grouse has been considered to be more or less migratory in autumn. There were periodic movements of considerable extent in former times but little is known about them. The only detailed study is that made by Snyder¹⁷⁹ on the migration in Ontario in the winter of 1932-33.

It is stated that in the severe and snowy winter of 1844, this species came farther south than usual and several fine specimens were secured in Chicago.¹⁸⁰ Two or three winters later, some were also killed in the vicinity of Chicago. These birds could have been of local origin or migrants from southern Wisconsin. There is no evidence of a wide-spread movement.

In determining the movements in Wisconsin, it is extremely difficult to determine to which species the statements refer. The appearance of "prairie hens" in the vicinity of Chicago during subzero weather in January, 1852, was, in the popular belief, an indication of a hard winter.¹⁸¹ February proved to be very mild with insufficient snow for good sleighing. The statement from Green Bay, in November, 1854, is equally indefinite: "Coming North. We hear of many flocks of Grouse in the vicinity recently. Though they have been seen here, at intervals, they are never-

theless rare."¹⁸² It is a mere inference that the birds came from the south. Leopold,¹⁸³ quotes Orrin Sutherland, born at Janesville, Wisconsin, in 1849, as saying that in the '50s: ". . . great flights of grouse (sharptails) arrived late in fall when snow came, in flocks of 100 to 150, flying about 15 rods high. . . . In the spring they went back but not in continuous flights; they just strung back." The description of the fall and spring flights is typical of the prairie chicken. Considering Sutherland's youthfulness at the time, and that both species were commonly called "grouse," there is doubt that the flights consisted of sharp-tailed grouse.

The first clearly defined movement took place at the head of Lake Superior in November, 1865. This region was safely beyond the range of the prairie chicken at that time. Concerning this movement it is said: "Grouse or Prairie Chicken, which for the past two years have been occasionally seen in this locality, are this fall to be found in great numbers around the head of the lake. They have been shot in the heart of the town during the past week. A gentleman who came up the north shore lately informs us that on every promontory or point along the coast, they were to be seen feeding like so many domestic chickens."¹⁸⁴ During the following week the citizens of Superior had excellent shooting up to 10:00 A.M. every morning. The number of birds involved must have been great for a Mr. Curtice who had been surveying in Minnesota reported them "as very plentiful as far as fifty miles north of the lake."

The extent of this migration is unknown. Snyder¹⁷⁹ mentions that a sharp-tailed grouse taken at Sault Ste. Marie was exhibited at a meeting of the Canadian Institute held in Toronto on January 13, 1866. He assumes that the bird was the northern form, *P. p. phasianellus*, and that hypothetically there must have been a considerable movement during the winter of 1865-66. The actuality of the flight has been confirmed, and it is within the realm of possibility that the Minnesota flight consisted of *phasianellus* rather than *campestris*. Against this assumption is the fact that *phasianellus* has never been taken in Minnesota; also, since there was a congestion on the shore of Lake Superior it seems that the movement originated in the west or northwest.

The first mention of a "prairie chicken" in the vicinity of

Superior was in November, 1864, when several were killed. They were stated to have come from the open country of the St. Croix River.¹⁸⁵ This was followed by the large migration of sharp-tailed grouse in the fall of 1865. Nine years later, September, 1874, "prairie chickens" were seen again.¹⁸⁶ In August, 1883, a hunter is stated to have bagged fifteen.¹⁸⁷ The data are too few to determine if the nine-year intervals are of significance.

In the winter of 1867-68, there was a considerable flight of sharp-tailed grouse from Wisconsin to Lake City, Waubesa County, Minnesota. Gibbs¹⁸⁸ says: "One snowy morning last winter a flock of them came across Lake Pepin, and stopped to rest in the trees, and on the houses and barns all over Lake City. For a few minutes you could hardly look in any direction about town without seeing them standing like statues in all directions, their necks and heads pointed upward in a straight line, and seeming astonished at their situation and afraid to stir a feather. They are often seen in the trees in the villages, but rarely in large numbers." It is probable that this represented only an unusually large local movement.

Decline. The sharp-tailed grouse, as a local bird, had become rare in southeastern Wisconsin by 1852,¹¹² and its existence in the region was in doubt by 1856.^{112,174} For this reason it seldom reached the eastern markets, as its decline preceded the construction of the railways. DeVoe¹⁸⁹ says that this "fine bird" was found sometimes among the large number of prairie chickens shipped from Illinois, Iowa, and Wisconsin.

The last specimen for Rock County was obtained in 1869.⁵ Thure Kumlien could still furnish specimens from Lake Koshkonong in 1862.¹⁹⁰ In 1865, it was still a common breeder in Dane County.¹⁹¹ The species persisted in the county until recently. Professor J. G. Dickson has informed me that a small flock existed for several years near his cottage at Blue Mounds. They were seen last during the winter of 1939-40.

On July 11, 1934, I was told by Mr. William Dunwoody of Monroe, that he had heard that sharp-tailed grouse were still to be found in Green County, northeast of Argyle. It was to be found in the southern portion of Iowa County until 1900.^{183a}

In 1883, some hunters at Reedsburg, Sauk County, had "two or three speckled prairie chickens. We never saw any prairie

chickens marked just that way before. . . ."¹⁹² Apparently these were sharp-tailed grouse.

At Oshkosh,¹⁹³ in 1851, "grouse and prairie chickens" were very abundant. The report of King¹⁹⁴ was completed essentially in 1878. He mentions that the sharp-tailed grouse was resident from Berlin northward, and that in October, 1877, it was abundant in the vicinity of Lac du Flambeau.

Hunters, in 1863, were bringing large numbers of prairie chickens into La Crosse,¹⁹⁵ where also "grouse, quail, partridge" were to be found. In Pierce County, in 1856, "pheasants, grouse and chickens" were plentiful.¹⁹⁶

In 1870, the section of the state northwest of Sparta, Tomah, and Necedah contained more sharp-tailed grouse than prairie chickens¹⁹⁷ and it is doubtful if this condition was ever reversed. Both "prairie chickens and grouse" were plentiful near Chipewewa Falls¹⁹⁸ in 1873. In September of this year, Smith¹⁷⁷ drove three or four miles from Augusta, where it was stated that both species would be found. The first afternoon he and a companion, hunting in the scrub, killed 18 sharp-tailed grouse and 3 prairie chickens. The following afternoon they saw a pack of not less than 300 birds. Both species were found in the stubble but even here the sharp-tailed grouse was more numerous. At this time the birds were in large packs and wild.

In the fall of 1881 both species were scarce in the Milwaukee market.¹⁹⁹ The two species were "very abundant" at Necedah in March, 1883.²⁰⁰ They were listed as permanent residents at New Richmond, St. Croix County, in 1886: ". . . the partridge or ruffed grouse, common grouse, prairie chicken . . . may be found with us all the year round . . ." Early in February of this year "prairie chickens" were flying over the town nearly every morning.²⁰¹ It is uncertain to which species the flights refer.

The sharp-tailed grouse is not mentioned by Willard²⁰² in his list of birds of the Green Bay region, prepared in 1883, nor was it observed at this time by Grundtvig²⁰³ in Outagamie County. On the other hand, it was a common resident of Oconto County in 1902.²⁰⁴

Hampton²⁰⁵ hunted the sharp-tailed grouse at Babcock, in 1896, and did not find them very plentiful. He heard that there were some "pinnated grouse" in the neighborhood but he saw

none. In 1897, all the birds killed at Hancock on the opening day were sharp-tailed grouse.²⁰⁶ At this time Hough²⁰⁷ wrote: "Wherever the wheat country runs up into the joining line of the hardwood and pine country there are some prairie chickens and very often sharp-tailed grouse in Wisconsin."²⁰⁸ He hunted at Necedah in 1901 where he considered the two species about equally divided in number, or perhaps one-third was represented by the sharp-tailed grouse. It seemed odd to him to flush prairie chickens in an open field and have them fly straight into the pine timber. At Babcock, this season, he found that the sharp-tailed grouse predominated.

The Future. The anticipated extinction of the sharp-tailed grouse has not been realized nor is it within the realm of probability. There is every reason to believe that under present land policies the species will continue to be plentiful. The replacement of the virgin coniferous forests with hardwoods, the growth of brush on drained marshes, and the withdrawal of marginal lands from cultivation have improved its habitat in many sections of the state. It is thoroughly capable of thriving in regions untouched by agriculture. In fact, it seems to be incapable of existing without a certain amount of wild land.

"PRAIRIE CHICKEN" ANNALS

1855

The prospects for the state as a whole were considered excellent.¹ Prairie chickens were scarce at Mineral Point,² "quite plenty" at Hudson,³ and plentiful at Madison⁴ and Watertown.⁵ One writer states that they were as plentiful during the winter of 1855-6 as they had been during any one of the past ten years.⁶ During this winter they were plentiful in the markets at Madison,⁷ Milwaukee,⁸ Lancaster,⁹ and Watertown.¹⁰

¹ Milwaukee (d) *Wisconsin* Sept. 1. ² Mineral Point *Tribune* Aug. 14. ³ Hudson *North Star* Aug. 22. ⁴ Madison *Patriot* Aug. 28. ⁵ Watertown *Democrat* Aug. 30. ⁶ Milwaukee *News* Aug. 17, 1856. ⁷ Milwaukee *News* June 10, 1856. ⁸ Milwaukee *Sentinel* Jan. 25, 1856. ⁹ Lancaster *Herald*. In Milwaukee *Sentinel* Jan. 10, 1856. ¹⁰ Watertown *Democrat* Jan. 31, 1856.

1856

Large shipments were made from Watertown¹ and the birds were reported plentiful at Prescott² and Plover.³ Several hundred live prairie chickens were brought to Madison⁴ for sale. The few references for the year indicate that they were neither sufficiently numerous nor scarce to excite comment.

¹ Watertown *Democrat* May 1, Nov. 13, and Dec. 25. ² Prescott *Transcript* April 12 and Aug. 15. ³ Plover *Herald* Sept. 11. ⁴ Madison *Patriot* Dec. 25.

1857

This year was a decisive low. They were reported scarce at Jefferson,¹ Janesville,² La Crosse,³ and Weyauwega.⁴ Several sportsmen at Watertown⁵ returned "with bags well filled with snipe and prairie chicken." A few birds were offered in the Madison⁶ market while in January, 1858, they were "unusually scarce" in the Milwaukee⁷ market.

¹ Porter's *Spirit of the Times*, N. S. 3 (Nov. 28, 1857) 202. ² Janesville *Gazette* Aug. 10. ³ La Crosse *National Democrat* Oct. 13. ⁴ Weyauwega *Weyauwegan* Nov. 15. ⁵ Watertown *Democrat* Aug. 13. ⁶ Madison *Argus* and *Democrat* Aug. 18. ⁷ Milwaukee *Sentinel* Jan. 4, 1858.

1858

In February, thousands of prairie chickens were reported to be using the cornfields in the vicinity of Wheaton and Danby, Du Page County, Illinois.¹ In Wisconsin, except at Jefferson,² they were more numerous than in 1857. They were quite plentiful at Waukesha,³ Horicon,⁴ Fox Lake,⁵ Portage,⁶ Madison,⁷ and Prairie du Chien.⁸ They were not sufficiently plentiful at Prairie du Chien, however, to prevent the local hunters from going to Iowa.⁹ Milwaukee was "tolerably well supplied" with this

game.¹⁰ In December they sold at 14 to 15 cents apiece, the price dropping later to 10 to 12 cents due to poor weather for preserving game.

¹ Chicago *Tribune*. In Milwaukee (d) *Wisconsin* Feb. 13. ² Milwaukee *Wisconsin* Aug. 14. ³ Waukesha *Democrat* Sept. 7. ⁴ Horicon *Argus* Sept. 3. ⁵ Fox Lake *Gazette* Aug. 3 and Sept. 7. ⁶ Portage *Badger State* Aug. 27. ⁷ Madison *State Journal* Aug. 16. ⁸ Prairie du Chien *Courier* Sept. 2. ⁹ Prairie du Chien *Leader* Aug. 28. ¹⁰ Milwaukee *Sentinel* Dec. 3 and 31.

1859

The birds were plentiful generally throughout the state. At Mineral Point¹ they were considered unusually numerous, and plentiful to abundant at Platteville,² Mauston,³ Prescott,⁴ Hudson,⁵ Oshkosh,⁶ Wautoma,⁷ and Burlington.⁸ A side hunt at Monroe⁹ produced 211 birds. A party of eight men at Madison¹⁰ shot over 150 prairie chickens in two days. A hunter at Janesville¹¹ killed 54 birds in one day, and three young men hunting at Lake Geneva bagged 83 in one day.¹²

¹ Mineral Point *Intelligencer* Aug. 4; *Tribune* Aug. 2. ² Platteville *Witness* Aug. 4. ³ Mauston *Star* Sept. 21. ⁴ Prescott *Democrat* Aug. 27; *Transcript* Aug. 27 and Oct. 8. ⁵ Hudson *North Star* Aug. 17. ⁶ Oshkosh *Courier* Aug. 12 and 15. ⁷ Wautoma *Argus* Aug. 5. ⁸ Burlington *Gazette* Aug. 30. ⁹ Monroe *Sentinel* Aug. 17. ¹⁰ Madison *State Journal* Aug. 17; cf. Janesville *Gazette* Aug. 22. ¹¹ Janesville, Burlington *Gazette* Aug. 30. ¹² Kenosha *Telegraph* Aug. 25.

1860

Prairie chickens were considered more abundant this year than the year previous due to the mildness of the winter and the heavy crops of grain.¹ They were reported abundant at Oxford,² Horicon,³ Baraboo,⁴ Burlington,⁵ Shullsburg,⁶ and Prairie du Chien.⁷ Early in the season they were moderately plentiful at Madison.⁸ The price of 12 to 15 cents on August 13 rose to 18 cents by September 7, when there was a general complaint of scarcity.⁹

The prairies of Eau Claire County were "alive" with the birds though they were smaller than usual.¹⁰ A party of three men hunted at Bridge Creek killing 106 birds, the first day, and during a part of the following day added about 50 more.¹¹ Six men shooting in the southern part of Dane County killed 253 birds in two days, or 21.1 birds per gun per day. These men were experienced hunters and the reason given for the modest bag was that the covies were small, containing at the most only seven or eight birds.¹² They were plentiful in the Milwaukee market and sold at 15 to 18 cents.¹³

¹ Milwaukee (d) *Wisconsin* July 30; Madison *State Journal* Aug. 14. ² Oxford *Express* Aug. 17

and 31. ²Horicon *Argus* Sept. 21. ⁴Baraboo *Republic* Aug. 15. ⁵Burlington *Gazette* Aug. 14. ⁶Shullsburg *Local* Aug. 10. ⁷Prairie du Chien *Courier*. In *Milwaukee Sentinel* Aug. 4. ⁸Madison *State Journal* Aug. 14; *Patriot* Aug. 13, 14, 24, 29 and Sept 7. ⁹Madison *Argus* and *Democrat* Sept. 8 and Oct. 12. ¹⁰Eau Claire *Free Press* July 19. ¹¹*Ibid.* Aug. 31. ¹²Madison *Patriot* Aug. 15. ¹³Milwaukee *Wisconsin* Aug. 4 and 14.

1861

Prairie chickens continued to be plentiful. One writer stated that the shooting at Prairie du Chien was the best in his remembrance.¹ They were abundant at Hudson,² La Crosse,³ Galesville,⁴ Mauston,⁵ Markesan,⁶ Oshkosh,⁷ Fond du Lac,⁸ and Watertown.⁹ Oconomowoc¹⁰ hunters had "unbounded success" near Waupun, but that of Madison¹¹ hunters was only moderate.

It is of special interest that the shooting was good this season along Lake Michigan. Good bags were made at Waukesha¹² and Kenosha.¹³ At Racine,¹⁴ two hunters shot 88 birds within a period of eight hours.

Milwaukee was supplied abundantly with birds at \$2.00 a dozen.¹⁵

¹Prairie du Chien *Courier*. In *Milwaukee Wisconsin* Sept. 11. ²Hudson. In *Platteville Witness* Sept. 12. ³La Crosse (t-w) *Democrat* Aug. 14 and Oct. 11. ⁴Galesville *Transcript* Aug. 23. ⁵Mauston *Star* Aug. 14. ⁶Markesan *Journal* Sept. 7. ⁷Oshkosh *Courier* Aug. 16. ⁸Fond du Lac *Reporter* Aug. 10. ⁹Watertown *Democrat* Aug. 1. ¹⁰Oconomowoc *Free Press* Oct. 4. ¹¹Madison *Patriot* Aug. 17; *Argus* and *Democrat* Aug. 17. ¹²Waukesha *Democrat* Aug. 20. ¹³Kenosha *Telegraph* Aug. 15. ¹⁴Racine *Advocate* Aug. 21. ¹⁵Milwaukee *Sentinel* Aug. 20; *Wisconsin* Aug. 16 and 28.

1862

The Civil War eclipsed interest in hunting. The few reports available show that prairie chickens were plentiful. "Snap Shot,"¹ writing from Oregon, mentions that pinnated grouse "swarm" on the stubble-fields and dry marshes. They were numerous at Sparta² and Berlin.³ At Kenosha,⁴ three men shot 82 birds in a day's hunt.

¹"Snap Shot." *Wilkes' Spirit of the Times*, N. S. 7 (Sept. 27, 1862) 55. ²Sparta *Herald* Aug. 20. ³Berlin *Courant* Aug. 28. ⁴Kenosha *Times* Aug. 21.

1863

Prairie chickens were said to have never been "so abundant" in the Chicago market as during this season.¹ In Iowa, their numbers exceeded any known previously.² In January, 1864, a dealer at Fort Atkinson, Iowa, made one shipment of 360 dozen to New York.³ The Dubuque market became so glutted with birds that they could not be sold at a sufficient price to pay the

freight.⁴ Conditions in Wisconsin were also favorable. The birds were abundant at La Crosse,⁵ Galesville,⁶ Baraboo,⁷ Appleton,⁸ Ripon,⁹ Beaver Dam,¹⁰ and Watertown.¹¹ At Beloit¹² two men shot 51 birds in four hours.

¹ *Wilkes' Spirit of the Times*, N. S. 8 (Aug. 29, 1863) 410. ² *Milwaukee Wisconsin* Aug. 7 and Dec. 29. ³ *Ibid.* Jan. 22, 1864. ⁴ *Ibid.* Jan. 30. ⁵ *La Crosse Democrat* Aug. 11, Sept. 11, Oct. 10. ⁶ *Galesville Transcript* Aug. 21. ⁷ *Baraboo Republic* Aug. 19. ⁸ *Appleton Crescent* Sept. 5. ⁹ *Ripon Record* Aug. 13. ¹⁰ *Beaver Dam Argus* Sept. 9. ¹¹ *Watertown Democrat* Aug. 27. ¹² *Beloit Journal and Courier* Aug. 27.

1864

Prairie chickens were abundant due, it was believed, to the dryness of the season and so many hunters being in the army.¹ Nevertheless, owing to the drought, they were difficult to secure in the swamps and marshes, to which they retired.² They were plentiful at Osceola,³ La Crosse,⁴ Ripon,⁵ and Fox Lake.⁶ At Madison⁷ they were exceptionally numerous. A full brood in Dane County ran from 15 to 20 birds.⁸ South of La Crosse,⁹ in December, the "innumerable" prairie chickens were a pest to the farmers owing to their visits to the barnyards and wheat stacks.

They were not plentiful at Beaver Dam,¹⁰ and Paulson,¹¹ who hunted at Whitewater in August, found them scarce. A party of five men secured a modest bag of 60 birds in a day's hunt at Burlington.¹²

¹ *Milwaukee Wisconsin* Sept. 6. ² *Milwaukee News* Aug. 23. ³ *Osceola Press*. In *Milwaukee Wisconsin* Aug. 5. ⁴ *La Crosse Democrat* Oct. 10. ⁵ *Ripon Commonwealth* July 29. *Fox Lake Gazette* Aug. 17. ⁶ *Madison State Journal* Aug. 6; *Patriot* July 26 and Aug. 29. ⁷ *Wilkes' Spirit of the Times* 11 (Sept. 17, 1864) 35. ⁸ *Eau Claire Free Press* Dec. 15. ⁹ *Beaver Dam Argus* Aug. 17. ¹⁰ *Paulson, Wilkes' Spirit of the Times* 12 (July 29, 1865) 339. ¹¹ *Burlington Standard* Aug. 16.

1865

The birds continued abundant in many localities. In April the marshes at Portage¹ were alive with them. "Snap Shot,"² writing from Madison in May, predicted the best shooting in years. A side hunt at Eau Claire³ resulted in 786 birds for one team of 25 men, and 452 for the other team of 20 men. This is a total of 1238 birds, and an average of 27.5 per gun. They were reported abundant at Osceola,⁴ Hudson,⁵ Ripon,⁶ Green Lake,⁷ Waupun⁸ and Watertown;⁹ and plentiful at Mineral Point,¹⁰ Monroe,¹¹ and Madison.¹² One hunter, who with two companions killed 60 birds in a forenoon at Brooklyn, stated that he never saw them more numerous in the west.¹³ Green Bay¹⁴ had the best shooting in years.

The year 1864 appears to have been a peak year in Iowa as noted above. In 1865, 38 men participating in a side hunt in Delaware County, Iowa, killed 857 birds during the day. They were scarce in comparison with the year previous.¹⁵

¹ Portage Register April 1. ² "Snap Shot." *Wilkes' Spirit of the Times* 12 (May 27, 1865) 194. ³ Eau Claire Free Press Aug. 17. ⁴ Osceola Press Aug. 19. ⁵ Hudson Star. In *Madison State Journal* Sept. 5. ⁶ Ripon Commonwealth Aug. 25. ⁷ Green Lake Spectator. In *Madison Capitol* Aug. 24. ⁸ Waupun Times. In *Madison State Journal* Aug. 19. ⁹ Watertown Democrat Aug. 17. ¹⁰ Mineral Point Tribune July 26. ¹¹ Monroe Sentinel Aug. 23. ¹² *Madison State Journal* Aug. 15. ¹³ J. P. S. Turf, *Field and Farm* 1 (Sept. 30, 1865) 138. ¹⁴ Green Bay Advocate Sept. 7. ¹⁵ *Turf, Field and Farm* 1 (Sept. 9, 1865) 92.

1866

The reports were few and somewhat conflicting. Prairie chickens were stated to be plentiful at Alma,¹ Osceola,² Prescott,³ Hudson,⁴ Neenah,⁵ Ripon,⁶ and Madison.⁷ W. S. Grubb,⁸ of Madison, shot 52 birds in one day near Sauk City. Two men hunted near Middleton Junction, Dane County, and killed 65 "grouse" in two days.⁹ A party of six men is credited with shooting 300 birds in one day at Black River Falls, but later they were stated to be less numerous in the same locality than for some years.¹⁰ A report from Fond du Lac¹¹ reads: "Prairie chickens are not as plenty this season as they were a year ago, owing no doubt to the wet weather in the earlier part of the summer." The Milwaukee market received large quantities of birds during the middle of August.¹²

¹ *Alma Journal*. In *Milwaukee Sentinel* Oct. 17. ² *Osceola Press* Sept. 22. ³ *Prescott Journal* Aug. 18. ⁴ *Hudson Star and Times* Aug. 21. ⁵ *Neenah Island City Times* Aug. 21. ⁶ *Ripon Commonwealth* Aug. 17. ⁷ *Madison Union* Aug. 15. ⁸ *Madison State Journal* Aug. 15. ⁹ S. S. G. *Wilkes' Spirit of the Times* 15 (Oct. 6, 1866) 82. ¹⁰ *Black River Falls Banner*. In *Madison State Journal* Sept. 19 and Oct. 4. ¹¹ *Fond du Lac Commonwealth* Aug. 19. ¹² *Milwaukee Wisconsin* Aug. 15.

1867

The year 1867 is the second to show a pronounced scarcity. In May prairie chickens were reported unusually numerous at Beaver Dam,¹ and in August at Stevens Point.² Elsewhere the comments stressed scarcity. At Hudson³ they were "unusually scarce." The question was raised at Prescott⁴ if there were "any in the country." The lack of birds was noted at Berlin,⁵ Fond du Lac,⁶ Burlington,⁷ Whitewater,⁸ and Madison.⁹ Two exceptional daily bags were reported at Madison. One hunter shot 90 and two hunters 75 birds.

The experience of a Racine hunter shows clearly the reduction in numbers. He hunted at Union Grove and saw but two

birds before breakfast. He then hunted until noon with two companions, flushing but one flock, thirteen in number, of which twelve were killed. The afternoon was spent at Tar Corners, Kenosha County, where no birds were found.¹⁰

The phenomenon of scarcity did not escape explanations. Conservative opinion leaned to the old belief in the decimating effect of a cold, wet spring.¹¹ The weather was not sufficiently lethal for others who advanced the theory that the birds had died from eating potato bugs.¹² Disease usually does not work with simultaneous severity over an area the size of a commonwealth, but it is interesting to note that prairie chickens, this season, were reported scarcer in Iowa than for years.¹³ In June of this year, J. A. Allen¹⁴ made observations on the birds of Ogle County, Illinois, that is on the Wisconsin boundary. His comment on the prairie chicken, "more or less abundant on the prairie," is not highly informative.

¹ Beaver Dam Citizen May 2. ² Stevens Point Lumberman Aug. 23. ³ Hudson Star and Times Aug. 21 and Sept. 4. ⁴ Prescott Journal Sept. 7. ⁵ Berlin Courier Sept. 19. ⁶ Fond du Lac Reporter Aug. 24. ⁷ Burlington Standard Sept. 4. ⁸ Whitewater Register. In Madison State Journal Aug. 24. ⁹ Madison Union Aug. 19, 21, 22, and 24; State Journal Aug. 23. ¹⁰ Racine Advocate Aug. 24. ¹¹ Waukesha Plain Dealer Sept. 3; Prescott Journal Sept. 7. ¹² Ref. 62. ¹³ "Field." Wilkes' Spirit of the Times 17 (Nov. 30, 1867) 273. ¹⁴ J. A. Allen, Mem. Bost. Soc. Nat. Hist. 1 (1868) 506.

1868

The recovery this year is difficult to explain on the theory that the sharp drop in 1867 was due to disease. The birds were reported as unusually plentiful at Green Bay¹ where they appeared to be increasing yearly. They were plentiful at Eau Claire² and "vast numbers" were killed at Black River Falls.³ It was estimated that the hunters at Oshkosh⁴ secured about 500 birds on the opening day. One party of six men shot 126 birds.⁵ The best bag at Fond du Lac⁶ was 63 birds secured by a party of four men. Watertown⁷ and Shawano⁸ reported them plentiful, and Brandon⁹ and Madison,¹⁰ fairly plentiful. The price of 30 cents a bird at Madison is indicative of scarcity. Three men from Waukesha,¹¹ hunting in Walworth County, shot 50 birds the first morning of the season. They were scarce at Prescott¹² and Hudson,¹³ in the northwestern part of the state.

¹ Green Bay Advocate Aug. 27. ² Eau Claire Free Press Sept. 24. ³ Black River Falls Banner Aug. 29. ⁴ Oshkosh Times Aug. 25. ⁵ Oshkosh Journal Aug. 22. ⁶ Fond du Lac Reporter Aug. 29; Commonwealth Aug. 26. ⁷ Watertown Democrat Aug. 20 and 27. ⁸ Shawano Journal Aug. 27. ⁹ Brandon Times Aug. 15. ¹⁰ Madison State Journal Aug. 21 and 22. ¹¹ Waukesha Plain Dealer Aug. 25. ¹² Prescott Journal Aug. 7. ¹³ Hudson Star and Times Aug. 19.

1869

There was a decrease over the previous year. The only enthusiastic report came from Eau Claire.¹ In general, prairie chickens were considered scarce throughout the state.² Complaints of poor shooting issued from Hudson,³ La Crosse,⁴ Black River Falls,⁵ Mauston,⁶ Shawano,⁷ Appleton,⁸ Oshkosh,⁹ Waupun,¹⁰ Watertown,¹¹ and Berlin.¹² Data on bags give a good idea of the shooting. A hunting and fishing party of four men drove to the Sand Creek country, 25 miles from Chippewa Falls. The first flock of prairie chickens was encountered after travelling fifteen miles. In a period of two and one-half days, only 15 birds were killed.¹³ The best bag obtained on the opening day at Fond du Lac,¹⁴ secured by the united efforts of three men and two dogs, was seven birds. The largest subsequent daily bag, sixteen, was secured by a market hunter.

¹ Eau Claire *Free Press* Aug. 26. ² Milwaukee *Sentinel* Aug. 31. ³ Hudson *Star and Times* Sept. 1. ⁴ La Crosse *Leader* Aug. 17. ⁵ Black River Falls *Banner* Sept. 4. ⁶ Mauston *Star* Aug. 26. ⁷ Shawano *Journal* Sept. 23. ⁸ Appleton *Crescent* Sept. 4. ⁹ Oshkosh *Journal* Aug. 28. ¹⁰ Waupun *Leader* Aug. 26. ¹¹ Watertown *Republican* Aug. 25. ¹² Berlin *Courant* Sept. 2. ¹³ Chippewa Falls *Union and Times* Aug. 28. ¹⁴ Fond du Lac *Reporter* Aug. 28.

1870

In general there was a distinct improvement over 1869. The shooting was good at Kenosha¹ on the opening day, but the birds soon became scarce. Jefferson,² Mineral Point,³ and Portage⁴ reported them more plentiful than for several years past. They were plentiful at Columbus,⁵ while the shooting at Fond du Lac⁶ was better on the opening day than the year previous. The shooting was "fair" at Kilbourn,⁷ Waupun,⁸ and Janesville.⁹ At Oshkosh,¹⁰ a party of six hunted at Rosendale on the opening day and secured 60 birds. "Six to ten birds in an afternoon's tramp is about the average in this immediate vicinity."

They were scarce at Appleton.¹¹ The shooting in Dane County was relatively poor though 100 birds were reported to have been shot in the town of Albion prior to the opening of the season.¹² An experienced hunter secured but 30 birds in two days.¹³

Prairie chickens were quite plentiful in the northwestern portion of the state. At La Crosse¹⁴ one man shot 50 birds in less than half a day, while another is credited with killing 250 during the season. They were plentiful at Eau Claire¹⁵ and Hudson.¹⁶ They were reported plentiful also in Chippewa County.¹⁷ The data available are conflicting. Four men hunted for a

day at Hay Creek and secured only 30 birds; but one man is stated to have killed 13 in four hours.¹⁸

They were scarce in the Milwaukee market where the price ranged from \$3.25 to \$3.50 per dozen the first of September. On November 14, the price was \$4.00.¹⁹

¹ Kenosha *Telegraph* Aug. 25, Sept. 1 and 15. ² Jefferson *Banner* Aug. 24. ³ Mineral Point *Tribune* Aug. 11. ⁴ Portage *Register* Aug. 27. ⁵ Columbus. In *Madison State Journal* Aug. 22. ⁶ Fond du Lac *Reporter* Aug. 27. ⁷ Kilbourn *Mirror* Aug. 25. ⁸ Waupun *Leader* Aug. 25 and Sept. 8. ⁹ Janesville *Gazette* Aug. 19. ¹⁰ Oshkosh *Journal* Aug. 27. ¹¹ Appleton *Crescent* Aug. 13 and Sept. 3. ¹² *Madison State Journal* Aug. 2. ¹³ *Madison Democrat* Oct. 6. ¹⁴ La Crosse *Leader* Aug. 27, Oct. 8 and Dec. 10. ¹⁵ Eau Claire *Free Press* Oct. 20. ¹⁶ Hudson *Star and Times* Aug. 26. ¹⁷ Chippewa Co. In *Madison State Journal* Aug. 19, (1). ¹⁸ Chippewa Falls *Herald* Aug. 20 and 27. ¹⁹ Milwaukee *Sentinel* Nov. 14.

1871

There were fewer birds than last year. Reports of scarcity came from Racine,¹ Kenosha,² Burlington,³ Columbus,⁴ Portage,⁵ Waupun,⁶ Watertown,⁷ Fox Lake,⁸ Appleton,⁹ Weyauwega,¹⁰ and Sparta.¹¹ The best day's bag at Fond du Lac¹² was 12 birds to two hunters. At Neillsville,¹³ the shooting of 40 birds by two men was "flattering success."

A party of Milwaukee hunters shot about 100 birds at New Lisbon.¹⁴ They were quite plentiful at Elkhorn,¹⁵ Janesville,¹⁶ Madison,¹⁷ Oshkosh,¹⁸ Mauston,¹⁹ Osceola,²⁰ and Hudson.²¹ A few localities, Brandon,²² Menomonie,²³ and Black River Falls,²⁴ reported them more plentiful than usual. They appear to have been abundant in Chippewa County where "thousands" were said to have been killed.²⁵ A party of eight Milwaukee hunters secured 267 birds fourteen miles north of Chippewa Falls.²⁶

¹ Racine *Advocate* Aug. 26. ² Kenosha *Telegraph*, Aug. 24. ³ Burlington *Standard* Aug. 31. ⁴ Columbus *Democrat* Aug. 25. ⁵ Portage *Register* Aug. 26. ⁶ Waupun *Leader* Aug. 25. ⁷ Watertown *Republican* Aug. 23. ⁸ Fox Lake *Representative* Aug. 25. ⁹ Appleton *Crescent* Sept. 2. ¹⁰ Weyauwega *Times* Aug. 26. ¹¹ Sparta *Herald* Aug. 8. ¹² Fond du Lac *Reporter* Aug. 26. ¹³ Neillsville *Republican* Sept. 20. ¹⁴ New Lisbon *Argus* Aug. 31. ¹⁵ Elkhorn *Independent* Sept. 13. ¹⁶ Janesville *Gazette* Aug. 21. ¹⁷ *Madison Democrat* Aug. 17. ¹⁸ Oshkosh *Journal* Aug. 26. ¹⁹ Mauston *Star* July 20. ²⁰ Osceola *Press* Aug. 18. ²¹ Hudson *Star and Times* Aug. 4, 11 and 25. ²² Brandon *Times* June 21. ²³ Menomonie *News* Sept. 23. ²⁴ Black River Falls *Banner* July 22 and Nov. 4. ²⁵ Chippewa Falls *Herald* Sept. 2 and 9. ²⁶ Milwaukee *News* Sept. 1.

1872

There was some improvement this year. Prairie chickens were scarce at Janesville,¹ Watertown,² Brandon,³ Fond du lac,⁴ Waupaca,⁵ Mineral Point,⁶ and New Lisbon.⁷ They were fairly numerous to plentiful at Waukesha,⁸ Burlington,⁹ Lodi,¹⁰ Columbus,¹¹ Friendship,¹² Mauston,¹³ Black River Falls,¹⁴ Augus-

ta,¹⁵ Menomonie,¹⁶ and Oshkosh.¹⁷ A party of Oshkosh hunters shot 98 birds on the opening day.

Prairie chickens were exceptionally plentiful in St. Croix County in April, but after a hail storm in August, very few were to be found.¹⁸ They were unusually plentiful at Hudson,¹⁹ and sufficiently numerous in some parts of Eau Claire County to be considered a pest to the farmers.²⁰ Eau Claire sportsmen, during the first part of the season, secured about 300 birds daily.

¹ Janesville Gazette Aug. 19 and 29. ² Watertown Republican July 31. ³ Brandon Times Aug. 16. ⁴ Fond du Lac Reporter Aug. 24. ⁵ Waupaca. In Milwaukee J. Commerce Sept. 4. ⁶ Mineral Point Tribune Aug. 8. ⁷ New Lisbon Argus Aug. 29. ⁸ Waukesha Democrat Aug. 13. ⁹ Burlington Standard Aug. 29. ¹⁰ Lodi Journal Sept. 4. ¹¹ Columbus Republican Aug. 24. ¹² Friendship Press Oct. 26. ¹³ Mauston Star Aug. 22. ¹⁴ Black River Falls Banner Aug. 10. ¹⁵ Augusta Herald Aug. 31. ¹⁶ Menomonie News Aug. 3. ¹⁷ Oshkosh Journal Aug. 24. ¹⁸ Hudson Republican. In Madison State Journal April 27, Aug. 15. ¹⁹ Hudson Star and Times July 26. ²⁰ Eau Claire Free Press Aug. 1 and 22.

1873

The increase in the number of prairie chickens this season was pronounced in spite of a complaint of scarcity throughout the state.¹ The southeastern section, as usual, had poor shooting. The birds were reported scarce at Watertown,² Waterloo,³ Wau-pun,⁴ Fond du Lac,⁵ Brandon,⁶ Appleton,⁷ Neillsville,⁸ and Black River Falls.⁹ Two men killed 28 birds in about one half of a day at Elkhorn, where they had been scarce for a dozen years.¹⁰ A Beloit¹¹ hunter is stated to have killed 19 on the opening day, August 20, and by the 23rd to have made a total bag of 78 birds for the season. This smacks of pre-season practise. There was a decided increase in Dane County.¹² One party of four men killed 105 in fourteen hours, and another party of two shot 75 birds.¹³

The winter of 1872-3 was quite severe. The farmers in St. Croix County reported that it had been extremely hard on the prairie chickens, some being too weak to run or fly. Hunger had driven them closer to their dwellings than usual and numbers had been fed in the barnyards; however, many had died of starvation, so that it was probable that the "crop" would be a failure. This fear does not seem to have been realized since at Kinnickinnic, in August, prairie chickens were "thicker than politicians."¹⁴ The scarcity at Brandon⁶ was attributed not only to the severity of the winter, but to the killing of the young by the cold, wet spring. Other localities in the state reported that the birds were plentiful in spite of the winter.

They were exceptionally numerous, or abundant, at Osh-

kosh,¹⁵ Fox Lake,¹⁶ Beaver Dam,¹⁷ Menasha,¹⁸ Dodgeville,¹⁹ Chippewa Falls,²⁰ Durand,²¹ Ellsworth,²² and La Crosse.²³

In July, thousands of young prairie chickens were reported in the vicinity of Osseo,²⁴ Trempealeau County. In August, a hunting party from Eau Claire killed 246 young birds in two days near Osseo.²⁵ T. S. and a companion shot 75 birds in two days in Trempealeau County. He was of the opinion that they were becoming wilder and less plentiful every year.²⁶

A party of six hunters from Eau Claire drove to the headwaters of Pine Creek, Barron County, and camped in Town 33, Range 12. Over 150 birds were shot in one day. The total number of "chickens" and "grouse" secured was 364. It was estimated that 100 birds were not found owing to the thick brush on some of the ground.²⁷

The middle of August, prairie chickens sold at \$2.25 per dozen at Prairie du Chien.²⁸ The Milwaukee market was supplied abundantly. Owing to the unfavorable weather, they were "nearly unsaleable," and large quantities were thrown away.²⁹

¹ Milwaukee News Sept. 23. ² Watertown Republican Aug. 20. ³ Waterloo Journal Aug. 23. ⁴ Waupun Leader Aug. 22 and 29. ⁵ Fond du Lac Reporter Aug. 9 and 23. ⁶ Brandon Times Aug. 15. ⁷ Appleton Crescent Aug. 30. ⁸ Neillsville Press Aug. 15. ⁹ Black River Falls Banner Aug. 30. ¹⁰ Elkhorn. In Burlington Standard Sept. 4. ¹¹ Beloit Free Press Aug. 23. ¹² Madison Democrat Aug. 29, Sept. 1, 6, and Oct. 10. ¹³ Madison State Journal Aug. 22 and 28. ¹⁴ Hudson Star and Times April 11 and Aug. 29. ¹⁵ Oshkosh Times Aug. 13. ¹⁶ Madison State Journal Aug. 6. ¹⁷ Beaver Dam Argus Aug. 14. ¹⁸ Menasha Press Aug. 11. ¹⁹ Dodgeville Chronicle Aug. 22. ²⁰ Chippewa Falls Herald Aug. 15, Sept. 6. ²¹ Durand Times July 18. ²² Ellsworth Herald Aug. 6, Sept. 3. ²³ La Crosse Democrat. In Milwaukee News Oct. 11. ²⁴ Eau Claire Free Press July 17. ²⁵ Eau Claire Herald Aug. 23. ²⁶ T. S. Forest and Stream, 1, No. 6 (Sept. 18, 1873) 83. ²⁷ Eau Claire Herald Sept. 4. ²⁸ Prairie du Chien Courier Aug. 19. ²⁹ Milwaukee Sentinel Aug. 23, 25.

1874

Prairie chickens increased again. In February, they were "extremely plentiful" on the bluffs near Eau Claire.¹ In the autumn, though Racine² had but few birds, there were unusual numbers in the southeastern portion of the state. This was true at Sharon,³ Janesville,⁴ Watertown,⁵ Green County,⁶ Waupun,⁷ and Fox Lake.⁸ A hunter at Elkhorn⁹ killed 21 birds before breakfast. The shooting was poor at Madison¹⁰ and Beaver Dam.¹¹ There was exceptionally good sport at Omro,¹² Montello,¹³ and Stevens Point.¹⁴ At Oshkosh¹⁵ some hunters killed 20 birds a day. Six Waupaca¹⁶ hunters spent a week end in Portage County and, in spite of two days of rain, shot 80 prairie chickens.

There was good hunting at Kilbourn¹⁷ and vicinity. Two men secured 55 birds in a day's hunt in the town of Excelsior, Sauk County,¹⁸ while H. M. Butterfield shot about 200 birds from August 15 to September 9 in the town of Fairfield.¹⁹

In the northwestern portion of the state Sparta,²⁰ River Falls,²¹ and Ellsworth²² reported poor shooting, but it was good at Black River Falls.²³ Chippewa County claimed to have the best hunting in the west.²⁴ One party of two men from Green Bay shot 150 birds near Alma Center, Jackson County, while another party of two obtained 240 at Pleasant Valley, Trempealeau County.²⁵ At Durand,²⁶ two men shot over 50 birds in a day's hunt.

In September, prairie chickens sold at \$2.25 to \$2.50 a dozen in Milwaukee.²⁷

¹ Eau Claire *Free Press* Feb. 12. ² Racine *Journal* Aug. 19. ³ Sharon *Inquirer* Sept. 10. ⁴ Janesville *Gazette* Aug. 26. ⁵ Watertown *Democrat* Aug. 27. ⁶ Madison *Democrat* Aug. 22. ⁷ Waupun *Leader* Aug. 28. ⁸ Fox Lake *Representative* Aug. 21. ⁹ Elkhorn *Independent*. In Madison *State Journal* Sept. 4. ¹⁰ Madison *State Journal* Aug. 18, 21. ¹¹ Beaver Dam *Citizen* Aug. 27. ¹² Omro *Journal* Aug. 20. ¹³ Montello *Express* Aug. 22. ¹⁴ Stevens Point *Journal* Aug. 29. ¹⁵ Oshkosh *Times* Sept. 2. ¹⁶ Waupaca *Republican* Aug. 27. ¹⁷ Kilbourn *Mirror* Sept. 4. ¹⁸ Reedsburg *Free Press* Aug. 20. ¹⁹ Baraboo *Republic* Sept. 9. ²⁰ Sparta *Herald* Aug. 5. ²¹ River Falls *Press* Aug. 20, 27, Oct. 8. ²² Ellsworth *Herald* Sept. 2. ²³ Black River Falls *Banner* Aug. 15. ²⁴ Chippewa Falls *Herald* Aug. 14, 21. ²⁵ Green Bay *Advocate* Aug. 27, Sept. 3. ²⁶ Durand *Times* Aug. 21. ²⁷ Milwaukee *Sentinel* Sept. 9.

1875

The population continued at a good level. The spring reports on the status of the prairie chicken were very favorable though the winter of 1874-5 was severe;¹ however, in two localities a considerable decrease was attributed to the weather.² When the season opened, the reports, though mixed, were largely favorable.

In the southeastern section, the shooting was good at Mukwanago, Waukesha County,³ Janesville,⁴ and Burlington.⁵ Near Delavan⁶ one man shot 35, and two men 20 birds, on August 16. Several hundred were reported shot near Lake Geneva⁷ during the first week of the open season. The shooting was very good in Dane County. Four men from Madison returned with 153 prairie chickens from York Prairie, town of York, where they hunted three days, presumably. Three men hunting on Swanton's Marsh, town of Cottage Grove, shot 29 birds in about an hour.⁸ The other large bags reported were made probably in Iowa.⁹ There were few birds at Stoughton,¹⁰ and so few near

Kenosha¹¹ that the end of the species in Kenosha and Racine Counties seemed to be in sight.

They were plentiful to abundant at Berlin,¹² Oshkosh,¹³ Menasha,¹⁴ and Wausau.¹⁵ Pond,¹⁶ who resided at Montello, reported "grouse" more plentiful than the year previous. Two men shot 36 birds in a day. They were abundant at Stevens Point¹⁷ where three men killed 65 on August 15. The following day two men bagged 85. They were plentiful also at Wautoma¹⁸ where a party is stated to have killed about 400 in a period of ten days. The reports from Waupun¹⁹ varied. The birds were scarce at Manitowoc,²⁰ Brandon,²¹ Ripon,²² and Fond du Lac.²³

In most of the western portion of the state prairie chickens were not plentiful. They were scarce at New Lisbon,²⁴ Viroqua,²⁵ and Black River Falls.²⁶ Prairie chickens were reported plentiful at Prairie du Chien,²⁷ Rice Lake,²⁸ and Sparta,²⁹ where three men shot "about forty-five" in a few hours. In St. Croix County they were scarce,³⁰ though two men shot 89 birds in a day's hunt.³¹ Three men hunting in Buffalo County secured over 100 birds.³² The shooting in Pierce County was reported poor to good.³³

¹ Milwaukee *Sentinel* May 13, (1); New Richmond *Republican* April 14; Boscobel *Dial* March 19; Waupun *Times* May 11. ² Fred (Pond), *Rod and Gun* 6 (April 3, 1875) 10; Waukesha *Democrat* March 13. ³ Waukesha *Freeman* Sept. 2; *Democrat* Sept. 11. ⁴ Janesville *Gazette* Aug. 18, 24. ⁵ Burlington *Standard* Aug. 19. ⁶ Delavan *Republican* Aug. 19. ⁷ Lake Geneva *Herald* Aug. 21. ⁸ Madison *State Journal* Aug. 18, 24, Sept. 11. ⁹ Madison *Democrat* Aug. 17, 21, 29, Sept. 1. ¹⁰ Stoughton. In: Milwaukee *Com. Times* Aug. 13. ¹¹ Kenosha *Union* Aug. 12, 26. ¹² Berlin *Courant* Aug. 28. ¹³ Oshkosh *Times* July 31, Aug. 21; *Northwestern* Aug. 26. ¹⁴ Menasha *Press* Aug. 26, Sept. 2. ¹⁵ Wausau *Pilot*, Aug. 21. ¹⁶ Fred (Pond), *Rod and Gun* 6 (Aug. 28, 1875) 323; Montello *Express* July 17. ¹⁷ Stevens Point *Journal* July 31, Aug. 21. ¹⁸ Wautoma *Argus* Aug. 11, 25. ¹⁹ Waupun *Leader* Aug. 27; *Times* May 11, Aug. 31. ²⁰ Manitowoc *Pilot* Sept. 2. ²¹ Brandon *Times* Aug. 19, Sept. 2. ²² Ripon *Free Press* Aug. 19. ²³ Fond du Lac *Reporter* Aug. 21; *Journal* Sept. 16. ²⁴ New Lisbon *Argus* Aug. 26. ²⁵ Viroqua *Censor* Aug. 11. ²⁶ Black River Falls *Banner* Aug. 7. ²⁷ Prairie du Chien *Union* Aug. 20. ²⁸ Rice Lake *Chronotype* Aug. 7. ²⁹ Sparta *Herald* Aug. 17. ³⁰ Hudson *Star* and *Times* Aug. 13; New Richmond *Republican* Aug. 4, 18; Hammond *Independent* Aug. 20. ³¹ Hudson *Republican* Aug. 25. ³² Eau Claire *Free Press* Aug. 26. ³³ River Falls *Advance* Aug. 24; *Press* Aug. 19.

1876

The population declined this year. Prairie chickens were unusually plentiful in St. Croix County¹ in April. In the autumn the shooting was poor at Waukesha,² Palmyra,³ Monroe,⁴ Waterloo,⁵ Waupun,⁶ Brandon,⁷ Oshkosh,⁸ Omro,⁹ Winneconne,¹⁰ Berlin,¹¹ Wautoma,¹² and New London.¹³ The largest daily bag at Delavan¹⁴ was 12 birds for two men. One hunter secured 90 between August 15 and September 22. They were scarce at Kil-

bourne¹⁵ though a party of three men shot 52 on Grand Marsh. Modest bags were made at Madison¹⁶ at the beginning of the season but shortly afterwards there were many complaints of scarcity.¹⁷ Grand Rapids^{17a} had fewer birds than the year previous.

They were "quite plentiful" at Prairie du Chien.¹⁸ Sparta¹⁹ reported them more numerous than in 1875, but not nearly as plentiful as in former years. Three men shot 70 birds on the opening day; however, two "boss hunters" returned with only two birds.²⁰ At New Lisbon,²¹ three men shot 75 in one day. They were scarcer at New Richmond,²² than "was ever known before." Though reported scarce at Trempealeau,²³ a party of Milwaukee hunters obtained 300 birds at Osseo, Trempealeau County.²⁴ The annual hunt by Eau Claire²⁵ sportsmen yielded "about two hundred chickens"; and five men are credited with killing 193 at Mondovi, Buffalo County.²⁶ In the absence of data on the number of hunters and the time spent in the field, it is impossible to draw any conclusions from the numbers killed. The birds were "quite plenty" at Chippewa Falls.²⁷

¹ *New Richmond Republican* April 19; *Hudson Star and Times* April 21. ² *Waukesha Democrat* Aug. 26. ³ *Palmyra Enterprise* Aug. 23. ⁴ *Monroe Reformer* Aug. 24. ⁵ *Waterloo Journal* Aug. 24. ⁶ *Waupun Times* Aug. 29. ⁷ *Brandon Times* Aug. 17. ⁸ *Oshkosh Times* Aug. 19; *Northwestern* Aug. 24. ⁹ *Omro Journal* Aug. 31. ¹⁰ *Milwaukee Sentinel* Sept. 5. ¹¹ *Berlin Courant* Aug. 26. ¹² *Wautoma Argus* Aug. 24. ¹³ *New London Times* Aug. 26, Sept. 2. ¹⁴ *Delavan Republican* Aug. 25, Sept. 22. ¹⁵ *Kilbourn Mirror* Aug. 25, Sept. 8. ¹⁶ *Madison Democrat* Aug. 17; *State Journal* Aug. 14, 15, 16. ¹⁷ *Madison Patriot* Aug. 19, 23, Sept. 7; *State Journal* Aug. 24, 26. ^{17a} *Grand Rapids Reporter* Aug. 31. ¹⁸ *Prairie du Chien Union* Aug. 29; *cf.* Aug. 22. ¹⁹ *Sparta Herald* Aug. 15. ²⁰ *Sparta Greenback* Aug. 17. ²¹ *New Lisbon Argus* Aug. 24. ²² *New Richmond Republican* Aug. 23. ²³ *Trempealeau Republican* Aug. 25. ²⁴ *Eau Claire (w) Free Press* Aug. 31. ²⁵ *Ibid.* Aug. 24. ²⁶ *Ibid.* Aug. 24. ²⁷ *Chippewa Falls Times* Aug. 23; *cf.* Aug. 16.

1877

The decline continued. Scarcity was reported from Kenosha,¹ Delavan,² Clinton,³ Darlington,⁴ Oconomowoc,⁵ Watertown,⁶ West Bend,⁷ Randolph,⁸ Baraboo,⁹ Weyauwega,¹⁰ and Oshkosh.¹¹ At the latter place, the average daily bag of 33 hunters was 7.6 birds.^{11a} All the reports from the county of Fond du Lac stressed scarcity.¹² The birds were scarce at Burlington¹³ where the three highest bags obtained on the opening day averaged 11 birds per man. One hunter at Dodgeville¹⁴ shot 17 the first day. An exceptionally large number of prairie chickens was observed at Madison,¹⁵ in March, in the vicinity of Nine Springs and Dead Lake (Wingra). In the fall, the shooting was good.¹⁶

The hunting was good also at Kilbourn.¹⁷ Two men hunting in Waushara County are stated to have killed 80 in one day.¹⁸ A party hunting at Grand Rapids shot 65 one day, mainly between 3:00 and 5:00 P.M. The marsh is described.¹⁹

They were reported "quite plenty" at Prairie du Chien,²⁰ and more numerous than for several years at Viroqua.²¹ Arcadia²² considered them abundant. The average of eleven bags reported at Sparta^{22a} on the opening day was 5.9 birds per man. At Tomah,²³ two men killed 26 "grouse" in two hours. They were scarce at New Lisbon,²⁴ Galesville,²⁵ Hudson,²⁶ and Rice Lake.²⁷

They were quite plentiful at River Falls,²⁸ "ten or fifteen chickens to an afternoon being the usual bag of a brace of hunters." Conditions were less favorable in Jackson County. A party of nine hunters, camping in the northwestern part, killed 105 birds in four days. This represents a kill of only 3 birds per man per day. Another party of five men, hunting at Pigeon Creek, secured about 22 birds.²⁹ In Chippewa County, they were reported numerous near Chippewa Falls, but not at Bloomer.³⁰ Prairie chickens were not only plentiful during the hunting season near La Crosse, but in November were to be found by hundreds in the cornfields where they were being trapped.³¹

All the reports for Barron County indicate that they were unusually plentiful.³² A fishing and hunting party that spent a day at Pine Creek in this county, took 70 birds and 100 trout.³³ The most favorable reports came from Eau Claire.³⁴ A party of eight men in four days killed 143 birds at the junction of Big Creek and Beef River.³⁵ Taking into consideration three additional specific bags,³⁶ the average per man for a full day was 9 birds. This does not indicate a very high population.

¹ Kenosha *Telegraph* Aug. 30. ² Delavan *Republican* Aug. 24. ³ Clinton *Independent* Aug. 22. ⁴ Darlington *Republican* Aug. 24. ⁵ Oconomowoc *Free Press* Aug. 25. ⁶ Watertown *Republican* Aug. 29. ⁷ West Bend *Democrat* Aug. 22. ⁸ Randolph *Times* Aug. 31. ⁹ Baraboo *Republic* Aug. 8. ¹⁰ Weyauwega *Chronicle* Sept. 1. ¹¹ Oshkosh *Times* Aug. 18. ^{11a} Oshkosh *Northwestern* Aug. 23. ¹² Fond du Lac *Commonwealth* Aug. 18; Brandon *Times* Aug. 23, Sept. 6; Ripon *Press* Aug. 23; Waupun *Leader* Aug. 17, 31; *Times* Aug. 21. ¹³ Burlington *Standard* Aug. 16. ¹⁴ Dodgeville *Chronicle* Aug. 17. ¹⁵ Madison *Democrat* March 18. ¹⁶ Madison *State Journal* Aug. 16 and *Democrat* Aug. 17. ¹⁷ Kilbourn *City Guard* Aug. 22, Sept. 5. ¹⁸ Green Bay *Advocate* Sept. 20. ¹⁹ Milwaukee *Sentinel* Aug. 18. ²⁰ Prairie du Chien *Courier* Sept. 4. ²¹ Viroqua *Censor* Oct. 3. ²² Merrillan *Leader* Sept. 15. ^{22a} Sparta *Republican* Aug. 17. ²³ Tomah *Journal* Aug. 18. ²⁴ New Lisbon *Argus* Aug. 30. ²⁵ Galesville *Independent* Aug. 30. ²⁶ Hudson *Star* and *Times* Aug. 10, 17, 24. ²⁷ Rice Lake *Chronotype* Sept. 13. ²⁸ River Falls *Press* Aug. 16, 29, Sept. 6. ²⁹ Black River Falls *Independent* Aug. 22, 29. ³⁰ Chippewa Falls *Herald* July 20, Sept. 14; *Times* Sept. 12. ³¹ I. S. F., *Forest and Stream* 9 (Dec. 6, 1877) 355. ³² Eau Claire *Free Press* July 26, Aug. 23;

Chippewa Falls *Times* Aug. 15. ³³ Menomonie *News* Aug. 25. ³⁴ Eau Claire (w) *Free Press* Aug. 23, Sept. 6; Chippewa Falls *Herald* Sept. 7. ³⁵ Eau Claire (w) *Free Press* Aug. 30. ³⁶ *Ibid.* (d) Aug. 30.

1878

This year was another decided low. The reports of scarcity are so numerous and state-wide that it is unnecessary to report upon localities.¹ At Neillsville² it was said that "the truth is becoming enforced upon old sportsmen that their favorite sport is about at an end forever in these parts."

A few good bags are recorded. At Oshkosh³ two men killed 19 birds before 10 A.M. and three men shot 42 in a day's hunt. One man at Waupun⁴ shot 42 in a day. Another hunter is credited with killing 188 in four days in Green Lake County.⁵ At Neenah⁶ three men shot 25 in two hours. A Portage⁷ hunter secured 24 birds in one day, while at Lodi⁸ 21 were shot by two men. The two highest individual bags at Madison⁹ were 19 and 33 birds. The few reports from Eau Claire¹⁰ show an average daily kill of 7.4 birds. Large numbers were reported killed in the lowlands in the vicinity of Tomah¹¹ during a period of a few days.

Several dozen were shipped from Arena,¹² Iowa County, for which \$4.00 per dozen was paid. As for the Milwaukee¹³ market, it was stated: "Prairie chickens and quality are rarely seen."

¹ *Racine Advocate* Aug. 31 and *Journal* Aug. 28; *Burlington Standard* Sept. 7; *Lake Geneva Herald* Aug. 31, Sept. 14; *Janesville Times*, Aug. 8; *Watertown Democrat* Aug. 29; *Edgerton Reporter* Aug. 23; *Columbus Democrat* Aug. 31; *Baraboo Republic* Sept. 11; *Friendship Press* Oct. 12; *Ripon Free Press* Aug. 29; *Waupun Leader* Aug. 30; *Waupaca Post* Oct. 19; *Brandon Times* Sept. 5; *Fond du Lac Reporter* Sept. 5 and *Commonwealth* Aug. 31, Sept. 21; *Oshkosh Northwestern* Sept. 5; *Winneconne Item* Aug. 31; *Neenah Gazette* Aug. 3; *Shawano Journal* Sept. 28; *Stevens Point Journal* Aug. 31; *New Lisbon Argus* Sept. 5, 19; *Sparta Democrat* Aug. 31; *River Falls Journal* Sept. 12, 19; *Chippewa Falls Times* Aug. 21; *Black River Falls Banner* Sept. 13; *Merrillan Leader* Aug. 30; *Galesville Independent* Sept. 19. ² *Neillsville Republican and Press*, Aug. 30. ³ *Oshkosh Times* Aug. 31; *Northwestern* Sept. 5. ⁴ *Waupun Leader* Aug. 30. ⁵ *Juneau Democrat* Sept. 11. ⁶ *Oshkosh Northwestern* Aug. 29. ⁷ *Portage Democrat* Aug. 30. ⁸ *Lodi Valley News* Aug. 28. ⁹ *Madison Democrat* Aug. 27; *cf.* Aug. 29. ¹⁰ *Eau Claire Free Press* Aug. 29. ¹¹ *Tomah Journal* Aug. 31. ¹² *Arena Star* Aug. 30. ¹³ *Milwaukee Sentinel* Aug. 28.

1879

Prairie chickens were reported scarce in nineteen localities.¹ Several pre-season statements that they were plentiful were not substantiated subsequently. The season at Madison² was fairly successful taking into consideration the decline in "opportunities." Improved shooting, or an increase in the number of birds

was reported from Ripon,³ Pewaukee,⁴ Monroe,⁵ Darlington,⁶ and Mineral Point.⁷ Racine⁸ had few birds, but five men shot 30, and two men 27, on the opening day. At Delavan,⁹ three men shot 23 birds, while at Lake Geneva¹⁰ two parties of three men each secured 21 and 20, respectively. For the opening days, the best bag recorded for the state was 36 birds, shot near Fond du Lac¹¹ by two hunters.

¹ Racine *Advocate* Aug. 30; Lodi. *Portage Register* Sept. 13; Fox Lake *Representative* Aug. 29; Waupun *Leader* Aug. 29; Brandon *Times* Aug. 28; Fond du Lac *Commonwealth* Aug. 16, 26; Westfield. *Montello Express* Oct. 4; Oshkosh *Times*, Aug. 30; Appleton *Crescent* Sept. 6; Green Bay *Gazette* Aug. 30; Oconto *Reporter* Sept. 13; Boscobel *Dial* Oct. 31; Tomah *Journal* Aug. 30; Whitehall *Messenger* Sept. 3; Eau Claire *Free Press* Aug. 22, Sept. 4; Menomonie *News* Sept. 13; New Richmond *Republican* Aug. 13; Hudson *Star and Times* Aug. 15; River Falls *Journal* Aug. 28; *Press* Aug. 28. ² Madison *State Journal* Nov. 17. ³ Ripon. *Milwaukee Sentinel* Aug. 26. ⁴ Pewaukee. *Milwaukee Sentinel* Aug. 27. ⁵ Monroe *Reformer* July 31. ⁶ Darlington *Democrat* Aug. 1. ⁷ Mineral Point *Tribune* Aug. 6. ⁸ Racine *Journal* Aug. 27. ⁹ Delavan *Enterprise* Aug. 30. ¹⁰ Lake Geneva *Herald* Aug. 29. ¹¹ Fond du Lac *Commonwealth* Aug. 26.

1880

The birds were again scarce in some localities, but there was a decided improvement over the year previous. There were few birds at Delavan,¹ Janesville,² Fox Lake,³ Princeton,⁴ Oconto,⁵ Chippewa Falls,⁶ New Richmond,⁷ Hudson,⁸ River Falls,⁹ Arcadia,¹⁰ Alma,¹¹ and Black River Falls.¹²

They were reported more numerous than usual at Darlington¹³ and Juneau,¹⁴ and there was good shooting at Menomonie.¹⁵ A Green Bay hunter shot 28 birds near Peak's Point, these being the only birds offered for sale in the city during the past five years.¹⁶ Another hunter is stated to have shot 48 birds one morning at Stevens Point.¹⁷ The average bag on the opening day at Fond du Lac was 6.8 birds. One hunter killed 80 between August 15 and September 18.¹⁸ At Madison,¹⁹ two men shot 53 in one day. Five men, hunting for a week on Beaver Creek, Eau Claire County, killed 187 birds.²⁰

In October, prairie chickens were scarce to absent in the Milwaukee market.²¹

¹ Delavan *Republican* Aug. 27. ² Janesville *Recorder* Aug. 13, 28. ³ Fox Lake *Representative* Aug. 20. ⁴ Princeton *Democrat* Sept. 9. ⁵ Oconto *Reporter* Sept. 18. ⁶ Chippewa Falls *Herald* Aug. 20; *Times* Aug. 25. ⁷ New Richmond *Republican* Aug. 25. ⁸ Hudson *Republican* Aug. 25. ⁹ River Falls *Journal* Aug. 26; *Press* Aug. 26. ¹⁰ Arcadia *Republican and Leader* Aug. 26. ¹¹ Alma *Journal* Aug. 26, Sept. 2. ¹² Black River Falls *Banner* Aug. 13. ¹³ Darlington *Democrat* July 16. ¹⁴ Juneau *Telephone* Sept. 3. ¹⁵ Menomonie *News* Aug. 21, Sept. 4; *Times* Aug. 6; *Milwaukee Sentinel* Sept. 6. ¹⁶ Green Bay *Advocate* Aug. 21. ¹⁷ Stevens Point *Pinery*. In *Green Bay Advocate* Aug. 26. ¹⁸ Fond du Lac *Commonwealth* Aug. 21, Sept. 18. ¹⁹ Madison *Democrat* Aug. 29. ²⁰ Eau Claire (w) *Free Press* Sept. 2. ²¹ Milwaukee *Sentinel* Oct. 11, 18.

1881

In general there were more birds than in 1880. The localities reporting them more numerous than for several years were: Berlin,¹ Montello,² Sun Prairie,³ Mineral Point,⁴ Chippewa Falls,⁵ and Galesville.⁶ Though scarce at Racine,⁷ the shooting at Kenosha⁸ was exceptional. At the latter place, one man secured 47 birds in a day's hunt, while two men shot 26 in one and one-half days. They were quite numerous to plentiful at Stevens Point,⁹ Oshkosh,¹⁰ Ripon,¹¹ Waterloo,¹² Madison,¹³ Bloomer,¹⁴ Durand,¹⁵ and Ellsworth.¹⁶

Reports of scarcity came from Wautoma,¹⁷ Brandon,¹⁸ Markesan,¹⁹ Waupun,²⁰ Sparta,²¹ Tomah,²² Pepin,²³ Black River Falls,²⁴ Menomonie,²⁵ River Falls,²⁶ and New Richmond.²⁷

¹ Berlin *Courant* Aug. 24. ² Montello *Express* July 30. ³ Sun Prairie *Countryman* July 28, Aug. 18. ⁴ Mineral Point *Tribune* Aug. 4, 25. ⁵ Chippewa Falls *Herald* July 22, Aug. 19. ⁶ Galesville *Independent* Aug. 18. ⁷ Racine *Journal* Aug. 24. ⁸ Kenosha *Courier* Aug. 18. ⁹ Stevens Point *Gazette* Aug. 24; *Journal* Sept. 3. ¹⁰ Oshkosh *Northwestern* Aug. 18; cf. *Times* Aug. 20. ¹¹ Ripon *Free Press* Aug. 18. ¹² Waterloo *Journal* Sept. 1. ¹³ Madison *State Journal* Aug. 23; *Democrat* Aug. 25, 28. ¹⁴ Bloomer *Workman* Aug. 18, Sept. 1. ¹⁵ Durand *Courier* Aug. 19. ¹⁶ Ellsworth *Herald* Aug. 24. ¹⁷ Wautoma *Argus* Aug. 26. ¹⁸ Brandon *Times* Aug. 18. ¹⁹ Markesan *Democrat* Aug. 18, 25. ²⁰ Waupun *Leader* Aug. 19, 26. ²¹ Sparta *Herald* Aug. 23; cf. *Democrat* Aug. 20. ²² Tomah *Journal* Aug. 20. ²³ A. T., *Am. Field* 16 (Oct. 22, 1881) 265. ²⁴ Black River Falls *Banner* Sept. 2. ²⁵ Menomonie *News* Aug. 20; *Times* Aug. 19, Sept. 2. ²⁶ River Falls *Press* Aug. 25. ²⁷ New Richmond *Republican* Aug. 31.

1882

The improvement seems to have continued. The pre-season predictions were very optimistic from Necedah,¹ Eau Claire,² La Crosse,³ River Falls,⁴ and New Richmond.⁵ While not abundant at Black River Falls,⁶ prairie chickens were more numerous than for "the past two years." The shooting was good at Grand Rapids,⁷ where four men secured 45 birds in one half of a day. They were reported quite plentiful to numerous at Beloit,⁸ Waupaca,⁹ Markesan,¹⁰ Chippewa Falls,¹¹ Menomonie,¹² Hudson,¹³ River Falls,¹⁴ and New Lisbon.¹⁵

The shooting was poor to indifferent at Lake Geneva,¹⁶ Janesville,¹⁷ Waupun,¹⁸ Brandon,¹⁹ Oshkosh,²⁰ Montello,²¹ Menasha,²² and in Barron County.²³

¹ Necedah *Signal* June 29. ² C. M. B. *Am. Field* 18 (July 29, 1882) 78. ³ La Crosse (w) *News* June 4. ⁴ River Falls *Press* April 13. ⁵ New Richmond *Republican* May 31. ⁶ Black River Falls *Banner* Aug. 18. ⁷ Grand Rapids *Reporter* Aug. 17, 31. ⁸ Beloit *Outlook* Aug. 19; cf. *Free Press* Sept. 11. ⁹ Waupaca *Republican* Aug. 18. ¹⁰ Markesan *Democrat* Aug. 24. ¹¹ Chippewa Falls *Independent* Aug. 24; *Herald* Sept. 15; cf. Bloomer *Workman* Aug. 31. ¹² Menomonie *Times* Aug. 18. ¹³ Hudson *Star* and *Times* Aug. 18. ¹⁴ River Falls *Journal* Aug. 24. ¹⁵ New Lisbon *Argus* Aug. 24. ¹⁶ Lake Geneva *Herald* Aug. 18. ¹⁷ Janesville *Recorder* Aug. 25; *Gazette* Aug. 24, Sept. 1. ¹⁸ Waupun *Leader* Aug. 25. ¹⁹ Brandon *Times* Aug. 31. ²⁰ C. M. B. *Am. Field* 18 (Sept. 16, 1882) 198. ²¹ Montello *Sun* Aug. 19. ²² Menasha *Press* Aug. 24. ²³ Chippewa Falls *Times* July 19.

1883

The spring reports were encouraging. Prairie chickens were reported quite abundant at Dodgeville.¹ At Columbus on February 21, a flock of 150 was feeding in standing corn.² Both pinnated and sharp-tailed grouse were "very abundant" at Necedah,³ while prairie chickens were more plentiful than usual at Merrilan⁴ and Eau Claire.⁵

When the season opened the shooting was poor at Racine,⁶ Lake Geneva,⁷ Beloit,⁸ Wautoma,⁹ Princeton,¹⁰ Brandon,¹¹ Markesan,¹² Rosendale,¹³ Oshkosh,¹⁴ Necedah,¹⁵ Mauston,¹⁶ Sparta,¹⁷ and Galesville.¹⁸ The reports from Black River Falls¹⁹ were contradictory. This is the case also with Eau Claire.²⁰ A party that varied in number from five to ten men over a period of ten days killed 290 birds at Rock Creek.

They were reported numerous to exceptionally plentiful at Westfield,²¹ Chippewa Falls,²² Arcadia,²³ Barron,²⁴ Prescott,²⁵ River Falls,²⁶ and Hudson.²⁷ It is of exceptional interest that "prairie chickens" were reported quite plentiful near Superior²⁸ where a hunter shot 15 one day. These may have been sharp-tailed grouse.

¹ Dodgeville *Chronicle* March 23. ² *Am. Field* 19 (March 10, 1883) 170. ³ C. W. W. *Ibid.* p. 230. ⁴ E. E. M. *Ibid.* p. 251. ⁵ C. M. B. *Ibid.* p. 299. ⁶ *Racine Journal* Aug. 22. ⁷ *Lake Geneva Herald* Aug. 17. ⁸ *Beloit Free Press* Aug. 15, 16; *Forest and Stream* 21 (Nov. 29, 1883) 349. ⁹ *Wautoma Argus* Aug. 24. ¹⁰ *Princeton Republic* Aug. 30. ¹¹ *Brandon Times* Aug. 23. ¹² *Markesan Democrat* Aug. 23. ¹³ S. B. Dilley, *Am. Field* 20 (Sept. 1, 1883) 198. ¹⁴ *Oshkosh Northwestern* Aug. 23. ¹⁵ *Am. Field* 20 (Sept. 15, 1883) 243. ¹⁶ *Mauston Star* Aug. 23. ¹⁷ *Sparta Herald* Aug. 21. ¹⁸ *Galesville Independent* Sept. 3. ¹⁹ *Black River Falls Banner* Aug. 17; *Independent* Aug. 29. ²⁰ Eau Claire (d) *Leader* Aug. 17, 22; (w) *Free Press* Aug. 23, 30, Oct. 4; *Am. Field* 20 (Aug. 18, 1883) 150. ²¹ *Am. Field* 20 (Sept. 22, 1883) 270. ²² *Chippewa Falls Herald* July 27; *Independent* Sept. 20; *Times* July 18, 25, Aug. 1. ²³ *Arcadia Republican and Leader* Aug. 3. ²⁴ *Barron Shield* Aug. 24. ²⁵ *Prescott Plaindealer* Aug. 24. ²⁶ *River Falls Journal* Aug. 30, Sept. 13. ²⁷ *Hudson Republican* Aug. 29. ²⁸ *Superior Times* Aug. 25.

1884

The birds were somewhat more numerous this year. Reports of scarcity came from Brandon,¹ Princeton,² Berlin,³ Dodgeville,⁴ Sparta,⁵ Grantsburg,⁶ and Menomonie.⁷ The statements from Chippewa Falls⁸ were contradictory. At Menomonie⁹ the most successful parties of four hunters did not secure over 40 birds during a long day's hunt. Though considered scarce at Racine,¹⁰ three men killed 39 birds one day on Barnes Prairie. At Plainfield¹¹ five hunters had 27 in the day's bag, while at Wautoma¹² a man had 14 birds in illegal possession. The situa-

tion in the eastern portion of the state is covered by the report from Madison.¹³ While a "trifle" more numerous than usual, it has been years since they were really plentiful in the vicinity, so that most sportsmen have been doing their hunting in Dakota and Minnesota.

Prairie chickens were plentiful at River Falls¹⁴ and Che-tek.¹⁵ Hunters at Black River Falls¹⁶ averaged "ten to twenty" birds daily. A hunter at Prescott¹⁷ shot 15 birds in three hours. The best bag made at Eau Claire¹⁸ consisted of 36 birds secured by two men hunting part of a day. Appleton¹⁹ had more birds than for a number of years.

¹ Brandon *Times* Aug. 21. ² Princeton *Republic* Aug. 28. ³ Berlin *Courant* Aug. 27. ⁴ Dodgeville *Sun* Aug. 22. ⁵ Sparta *Herald* Aug. 19. ⁶ Grantsburg *Sentinel* Aug. 29. ⁷ (Eau Galle). Menomonie *News* Aug. 23. ⁸ Chippewa Falls *Times* Aug. 13; *Herald* Aug. 29. ⁹ B. A. E. *Forest and Stream* 23 (Oct. 2, 1884) 186. ¹⁰ Racine *Journal* Aug. 20. ¹¹ Plainfield *Sun* Aug. 22. ¹² Wautoma *Argus* Aug. 22. ¹³ Madison *State Journal* Sept. 20. ¹⁴ (Oak Grove). River Falls *Journal* Oct. 9. ¹⁵ Chetek *Alert* Sept. 6, 13. ¹⁶ Neillsville *Republican and Press* Aug. 28. ¹⁷ Prescott *Plainealer* Aug. 29. ¹⁸ Eau Claire (d) *Leader* Aug. 23. ¹⁹ Appleton *Post* Sept. 4.

1885

There was again some improvement in number. Adverse reports came from Elkhorn,¹ Mineral Point,² Dodgeville,³ Berlin,⁴ Mauston,⁵ Sparta,⁶ Menomonie,⁷ Neillsville,⁸ and New Richmond.⁹

Prairie chickens were reported abundant, or more numerous than usual at Monroe,¹⁰ Portage,¹¹ Wautoma,¹² Durand,¹³ Chippewa Falls,¹⁴ Barron,¹⁵ River Falls,¹⁶ Hudson,¹⁷ and Grantsburg.¹⁸ Six Portage¹⁹ hunters shot 70 birds in one day near Packwaukee. Two Green Bay²⁰ hunters returned from Trempealeau Valley with about 100 birds. At Alma,²¹ five men shot about 60 birds in three days.

Prairie chickens were again reported "plentiful and much hunted" at Superior.²² They were reported also to have made their first appearance in Forest County.²³

¹ Elkhorn *Independent* Aug. 20. ² Mineral Point *Tribune* Aug. 20; cf. *Democrat* July 10. ³ Dodgeville *Star* Aug. 28. ⁴ Berlin *Journal* Sept. 3. ⁵ Mauston *Sun* Sept. 4. ⁶ Sparta *Herald* Aug. 18. ⁷ Menomonie *News* Aug. 15. ⁸ Neillsville *Times* Aug. 25. ⁹ New Richmond *Republican* Aug. 26, Oct. 7. ¹⁰ Monroe *Independent* July 25. ¹¹ Portage *Register* Aug. 15. ¹² Wautoma *Argus* Aug. 21. ¹³ (Waukeek). Durand *Courier* Sept. 4. ¹⁴ Chippewa Falls *Times* Aug. 19; *Herald* Aug. 21, Sept. 11. ¹⁵ Barron *Shield* Aug. 21. ¹⁶ River Falls *Journal* May 7, Aug. 27, Nov. 12. ¹⁷ Hudson *Star and Times* Aug. 21. ¹⁸ Grantsburg *Sentinel* Oct. 30. ¹⁹ Portage *Register* Aug. 22. ²⁰ Green Bay *Advocate* Sept. 3. ²¹ Alma *Journal* Aug. 20. ²² Superior *Times* Sept. 12. ²³ Crandon *Forest Leaves* Dec. 3.

1886

This year was definitely a high for the cycle and heavy infestation by ticks is reported for the first time.¹ In March, prairie chickens were unusually numerous at Menomonie,² and at Black River Falls.³ They were "quite abundant" at Montello, but probably outnumbered by ruffed grouse.⁴ At New Lisbon,⁵ a hunter secured 20 birds in a morning, while at Weyauwega⁶ four men secured 60 in a day's hunt. Two parties of four men each, hunting at Plover on August 16, secured 28 and 29 birds respectively.⁷ The postmaster at Blair, Trempealeau County, is stated to have shot 84 during the first five days of the season.⁸ They were reported plentiful at Portage,⁹ Prairie du Chien,¹⁰ Merrilan,¹¹ Chippewa Falls,¹² and Grantsburg.¹³

They were reported scarce at Elkhorn,¹⁴ Mineral Point,¹⁵ Prairie du Sac,¹⁶ Viroqua,¹⁷ Menomonie,¹⁸ and Prescott.¹⁹

¹ "Greener," *Am. Field* 26 (Sept. 11, 1886) 245. ² "Wing Shot," *ibid.* p. 316. ³ G. J. S. *Forest and Stream* 26 (April 8, 1886) 207. ⁴ (Fred Pond), *Montello Express* Aug. 7, (2). ⁵ *New Lisbon Argus* Aug. 20. ⁶ *Waupaca Republican* Aug. 20. ⁷ "Greener," *Am. Field* 26 (Sept. 11, 1886) 245. ⁸ *La Crosse Republican and Leader* Aug. 28. ⁹ Portage. In *Beloit Free Press* Aug. 21. ¹⁰ *Prairie du Chien Courier* Sept. 21. ¹¹ *Merrilan Leader* Aug. 20. ¹² *Chippewa Falls Herald* Aug. 20. ¹³ *Grantsburg Sentinel* Aug. 27. ¹⁴ *Elkhorn Independent* Aug. 19. ¹⁵ *Mineral Point Tribune* Aug. 19, 26. ¹⁶ *Prairie du Sac News* Aug. 20. ¹⁷ *Viroqua Censor* Aug. 18. ¹⁸ *Menomonie News* Aug. 28. ¹⁹ *Prescott Plaindealer* Sept. 3.

1887

This year was a low. Most of the best hunting localities complained of scarcity.¹ In the town of Wheaton, Chippewa County, prairie chickens were "not as plentiful as in former years," while the number of hunters had doubled.² The verdict from Elkhorn³ was that the prairie chicken is "gone."

At Madison,⁴ four men on September 1 secured 23 birds in the town of Westport. The only reports of good shooting came from Eau Claire⁵ and Chetek.⁶ Three Eau Claire hunters are stated to have killed 114 birds in one day.⁷ The report of 80 birds taken at West Prairie⁸ gives no indication of abundance in the absence of data on time and the number of hunters.

¹ *Black River Falls Independent* Sept. 7; *Grantsburg Sentinel* Sept. 16; *Durand Courier* Sept. 9; *Alma Journal* Sept. 15; *Sparta Herald* Aug. 30; *Democrat* Sept. 10; *Menomonie News* Sept. 10, 17; *New Richmond Republican* Sept. 7, Oct. 12. ² *Chippewa Falls Herald* Sept. 9. ³ *Elkhorn Independent* Sept. 8. ⁴ *Madison Democrat* Sept. 2. ⁵ Eau Claire (w) *Free Press* Sept. 1. ⁶ *Chetek. Barron Shield* Aug. 26. ⁷ Eau Claire. In *Madison Democrat* Sept. 8. ⁸ *La Crosse Republican and Leader* Sept. 17.

1888

The gradual elimination of the natural habitat of the prairie chicken, coupled with a low in the cycle, is reflected in the an-

nual decline in the number of references to the species. This year most of the reports again show scarcity.¹ There were statements that a large number of birds had perished during the preceding winter through the formation of a crust over the deep snow in which they had taken shelter.²

Fairly good shooting was reported from Necedah³ and Mauston.⁴ It is of interest that on September 1 a hunter killed 21 birds near Racine.⁵ Five men hunted a day at Oxford and secured only 12 prairie chickens.⁶

¹ *Darlington Republican* Sept. 21; *Kilbourn Mirror-Gazette* Sept. 8; *Portage Register* Sept. 8; *Friendship Press* Sept. 22; *Wautoma Argus* Sept. 14; *Weyauwega Chronicle* Sept. 5; *Chippewa Falls Herald* Aug. 24, Sept. 7; *New Richmond Republican* Aug. 22, Sept. 5; (Tainter), *Menomonie News* Sept. 7; *Barron Independent* Sept. 13 and (Chetek) *Barron Shield* Sept. 14. ² *Friendship Press* Jan. 21; *Eau Claire (w) Free Press* Feb. 16. ³ *Necedah Republican* Sept. 7. ⁴ *Mauston Sun* Sept. 6. ⁵ *Racine Times* Sept. 3. ⁶ *Portage Advertiser* Sept. 5.

1889

This year the season opened on August 1 and there were complaints of the smallness of the young birds. They were again scarce in nearly all localities.¹

At Beloit,² two men shot 20 birds on the opening day but this bag is exceptional. A hunter at Delavan³ secured 6 on the opening day while a party of three men with "fine hunting dogs" secured but one. At Grantsburg,⁴ two men shot 31, and at Black River Falls⁵ one man shot 19 birds in one day. Experienced hunters, during the first days of the season averaged "eight to ten birds" at Chippewa Falls.⁶ Three men shot 71 in the town of Bloomer in two days. Good shooting was reported at Poynette⁷ and Kilbourn.⁸

¹ *Clinton Herald* Aug. 7; *Chippewa Falls Times* Aug. 7; (Oak Grove). *Black River Falls Journal* Aug. 15; *New Richmond Republican* Aug. 28; *Menomonie. Am. Field* 32 (Sept. 7, 1889) 220; *Merrillan Leader* Aug. 16; *Eau Claire (w) Leader* Aug. 4, 25. ² *Beloit Free Press* Aug. 3. ³ *Delavan Republican* Aug. 7. ⁴ *Grantsburg Sentinel* Aug. 16. ⁵ (Pleasant View). *Black River Falls Banner* Sept. 12. ⁶ *Chippewa Falls Herald* Aug. 9. ⁷ *Poynette Press* Aug. 3. ⁸ *Kilbourn Mirror-Gazette* Aug. 24.

1890

Prairie chickens were scarce to "extremely scarce."¹ Four Wausau² hunters shot 40 at Grand (Wisconsin) Rapids. At Grantsburg,³ two men killed 16 birds in two hours, and at Merrillan,⁴ two hunters secured 15 in an afternoon. They were considered quite plentiful at La Crosse⁵ where two men shot 27 in one half of a day. One hunter shot 40 in unspecified time. The birds were reported plentiful near Dallas, Barron County, where

four men took 55 in two days.⁶ The hunting of prairie chickens at Superior⁷ is again mentioned. A large flock survived the hunting season in St. Croix County.⁸

¹ *Shooting and Fishing* 8, No. 23 (Oct. 2, 1890) 5; *Beloit Free Press* Aug. 8; *Waupun. Am. Field* 34 (Aug. 23, 1890) 173; *Montello Express* Aug. 23; *Mineral Point Tribune* Aug. 7; *Friendship Press* Aug. 16; *Kilbourn Mirror-Gazette* Aug. 16; *Sparta Herald* Aug. 5; *Viroqua Censor* Aug. 13; *Chippewa Falls Journal* Aug. 14; *Grantsburg Sentinel* Aug. 8. ² *Wausau Pilot and Review* Aug. 19. ³ *Grantsburg Sentinel* Aug. 8. ⁴ *Merrillan Leader* Aug. 8; ⁵ *La Crosse (w) Republican and Leader* Aug. 30. ⁶ *Chippewa Falls Herald* Aug. 8. ⁷ (White Birch). *Superior Times* Oct. 4. ⁸ *New Richmond Republican* Nov. 5.

1891-1894

During these years prairie chickens increased slowly.

1895

This year there was a decided increase in the number of prairie chickens. Near New Lisbon,¹ three men killed 31 on the opening day. At Mauston² two men secured 23, and one man 33, in one day. On the opening day, 175 birds were brought into Tomah.³ While not all of the hunters at Eau Claire⁴ had good success, most of the reports were very favorable.⁵ The scores showed an average daily bag of 8.6 birds per man. They "never were" so plentiful at Merrillan.⁶ Hunters commonly secured 20 to 30 birds daily. At New Richmond,⁷ there was "wholesale slaughter." Grantsburg⁸ had excellent shooting. Four men during the fore part of the week shot 151 on the marshes at Crooked Lake. Two hunters at Orange killed 70 during the season. Some were killed in a locality near Viroqua⁹ where they had been rare of late years. At Mondovi¹⁰ three men took 40 birds in one day. Only a few were shot at Trempealeau.¹¹

¹ (Sprague). *New Lisbon Times* Sept. 4. ² *Mauston Star* Aug. 22, 29, Sept. 5. ³ *Tomah Journal* Aug. 24. ⁴ *Eau Claire Free Press* Aug. 22. ⁵ *Eau Claire Telegram* Aug. 4, 20, 22, 24, 31, Sept. 10, 17. ⁶ *Merrillan Leader* Aug. 9, Sept. 13. ⁷ *New Richmond Republican* Aug. 29. ⁸ *Grantsburg Sentinel* Aug. 29; *Journal* Aug. 30, Oct. 11. ⁹ *Viroqua Censor* Sept. 18. ¹⁰ *Mondovi Herald* Aug. 30. ¹¹ *Trempealeau Herald* Aug. 23, 30.

1896

The population reached a peak this year. Hough¹ stated: "In Wisconsin also there are more prairie chickens than is known by the average shooter of this section." It was estimated that 1000 birds were killed at Babcock.² Eau Claire³ took the lead in optimism with an estimate of 10,000 birds in the vicinity. There was good shooting at Tomah,⁴ Durand,⁵ Merrillan,⁶ and Grantsburg;⁷ also at Mauston⁸ where the average bag was 5.7 birds on the opening day, August 20. "Lots of grouse" were reported to

have arrived in the vicinity of Cable within the past three years.⁹

There was poor shooting at Sparta,¹⁰ Trempealeau,¹¹ New Richmond,¹² Prescott,¹³ and River Falls.¹⁴

¹E. Hough, *Forest and Stream* 47 (Aug. 29, 1896) 166. ²(Babcock). *Tomah Journal* Sept. 19. ³Eau Claire *Free Press* Aug. 27; *Telegram* Aug. 22. ⁴*Tomah Journal* Aug. 22. ⁵*Durand Courier* Aug. 28. ⁶*Merrillan Leader* Aug. 14, 28, Sept. 18. ⁷*Grantsburg Sentinel* Aug. 27, Sept. 10. ⁸*Mauston Star* Aug. 27; *Chronicle* Aug. 13, 27. ⁹J. S. I. *Forest and Stream* 47 (Dec. 12, 1896) 469. ¹⁰*Sparta Herald* Aug. 18. ¹¹*Trempealeau Herald* Aug. 28. ¹²*New Richmond Republican* Aug. 27. ¹³*Prescott Tribune* Aug. 28. ¹⁴*River Falls Journal* Aug. 27.

1897

There was a decided decrease in the population in most localities. Prairie chickens were not nearly as numerous at Necedah¹ as was anticipated. Two men from Manitowoc, on a hunting trip at Necedah, secured 38 birds. This was stated to have been "better" than the bags reported by others.² According to Hough,³ all of the 100 hunters who were at Grand Rapids on the opening day reported poor shooting. There was "fair" shooting at Hancock. At Durand,⁴ Viroqua,⁵ Trempealeau⁶ Grantsburg,⁷ and Tomah⁸ the birds were few. They were reported scarce also at Oshkosh⁹ where the bags ranged from zero to 40 for a party of three men. Four men shot 17 on the same area that yielded 42 the year previous.

The only localities reporting prairie chickens plentiful were Black River Falls,¹⁰ Merrillan,¹¹ and Chippewa Falls.¹²

¹*Necedah Republican* Sept. 3. ²*Manitowoc Pilot* Sept. 9. ³E. Hough, *Forest and Stream* 49 (Sept. 25, 1897) 247. ⁴*Durand Wedge* Sept. 2. ⁵*Viroqua Censor* Sept. 8. ⁶*Trempealeau Herald* Aug. 13. ⁷(Webster). *Grantsburg Journal* Oct. 1. ⁸(Adrian), *Tomah Journal* Sept. 18. ⁹Oshkosh (d) *Northwestern* Sept. 2. ¹⁰*Black River Falls Banner* Sept. 2, 23. ¹¹*Merrillan Leader* July 30, Sept. 10. ¹²*Chippewa Falls Herald* Sept. 3.

1898-1900

During this period the population remained at a low level and it is unnecessary to go into details.

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