

## SUMMARY OF UPLAND BIRD WORK--MATING AND NESTING SEASONS, 1938

By  
F. M. Baumgartner

Ruffed GrouseDrumming Logs.

Escanaba River -- One log located incidental to other activities. No detailed observations.

Cusino -- Three logs located incidental to other activities. No detailed observations.

Munuscong -- One log located incidental to other activities. The male bird was observed to drum at all hours during the day and late at night as well. The log was used regularly for a period lasting more than a week (until June 11). After that date the bird apparently ceased drumming activities.

Lunden -- No logs located. Miller cooperated with Pigeon River C.C.C. studies.

Hanson -- Seven logs located, apparently used by four male birds. All of the logs were revisited at least once. Fifty-two hours were charged to this work.

Gladwin -- Eight logs located, apparently used by six or seven male birds. None of the logs were revisited. Twenty-five hours charged to this work.

Midland -- Eight logs were located on a forty-acre study plot, apparently used by three male birds. All of the logs were revisited at least once. Sixteen hours were charged to this work. Two drumming males used two logs alternately, the third showed a preference for one log, but used the others occasionally.

Iosco -- Four drumming logs were located on a special study plot approximately twenty acres in size. A female was seen at one of the three logs believed to have been used by a single male grouse. About thirty hours were spent on this work.

Pigeon River C.C.C. -- Ten drumming logs were located in connection with census work and drumming log surveys. Four men working full time. Seven male birds were spotted on one section that was set aside as a special study area. One of these was killed at the log by an owl (?).

## Remarks.

The refuge men spent approximately 130 hours in looking for and checking drumming logs. Thirty-two logs were located, some males apparently using two or three closely logs during the season. A majority of the logs were moss covered; most of them were less than 100 yards from an opening, the cover varied considerably but all were within 300 yards of low ground or swamp land.

In connection with census work and drumming log surveys, seven logs were located on one section in the Pigeon River Experimental Area.

### Nests

Escanaba River -- One nest was located incidental to sharp-tailed grouse work.

Cusino -- No nests located. No time devoted to this work.

Munuscong -- No nests located. No time devoted to this work.

Lunden -- See Pigeon River.

Hanson -- No nests located. Approximately fifty hours were spent in favorable nesting areas in connection with the drumming log survey.

Gladwin -- No nests were located. Approximately 100 hours were devoted to this work. Twenty-one birds were flushed but apparently none flew from nests.

Midland -- One nest was located on the forty-acre plot selected for special study. Fifty-three hours were devoted to nest hunting. Intensive efforts to find nests followed three methods of attack: (1) Working in circles away from the drumming logs, each circle approximately 8' outside of the previous course. (2) Setting up a 100' square about each drumming log and covering the entire area in 5-8' strips. (3) Traveling the edge of opening in the vicinity of the logs. The last method was the one that produced results.

Iosco -- No nests were located. About thirty hours were spent in looking for drumming logs and nests.

Pigeon River C.C.C. -- An intensive nest survey covering approximately a section of grouse cover resulted in the location of two nests. A third was found in connection with census work.

### Remarks

The field men spent approximately 230 hours in nest hunting. Only two nests were found, and one of these was discovered in connection with other work. The low returns indicate that this type of investigation does not yield high returns. Intensive nest hunting on the part of four C.C.C. men resulted in the discovery of three nests at Pigeon River.

### Census Work

Escanaba River -- In connection with the sharp-tailed grouse horseback census all ruffed grouse were recorded along the three routes that are covered once or twice each week. Due to the fact that the routes are intended to offer a sample of the better sharptail and prairie chicken range, the cover is generally not typical for ruffed grouse. Two hundred fifty-three miles were covered in one hundred thirty-four hours and sixteen ruffed grouse flushed, an average of .063 birds per mile.

Cusino -- A four-section census area was laid out and lines brushed out during the last winter. One census was taken in June giving an estimated population of 21 birds per section. A limited amount of work was also spent on a forty-acre sample plot. One brood was flushed and signs indicated that several other birds occasionally worked in the area. Thirty hours were spent on the census work.

Munuscong -- No time devoted to census work.

Lunden -- See Pigeon River.

Hanson -- Approximately forty hours were spent on four areas of roughly forty acres each. One drumming bird was located that had been using three logs. Another bird, probably a female, was seen near a drumming log on one area in late April. Apparently all of the birds moved out of this area or were destroyed by predators. Only five or six birds were flushed on these field surveys. No census lines were marked and the areas were stripped by running compass lines about a chain apart.

Gladwin -- Two forty-acre plots were selected in the Houghton Lake Forest and a similar area on the Gladwin Refuge. The width of each strip was approximately one chain. On most days only the more favorable cover was censused. Approximately 50 hours were spent on these areas. No birds appeared to be using the 40's with any degree of regularity.

Midland -- A forty-acre study area was selected and census lines a chain apart laid out by blazing the trees. A detailed cover map of the area was made. Sixty hours were spent in working the area during May and June for drumming logs and nests. Three drumming birds were located on the "40" and females were seen at each set of logs. Apparently 6 birds spent part of their time on the study area.

Iosco -- Two study plots were selected. Lines were marked with colored cloth on one area and by blazing the trees on the other. The blazing proved more satisfactory. The first plot was abandoned in early June due to the fact that so few birds appeared to be on this area. On the second plot two drumming males were located and signs were fairly abundant. Broods were also noted in this area. About 35 hours were spent on the plot studies.

Pigeon River C.C.C. -- Thirteen grouse censuses were taken during the months of April, May, and June. The results for April, May, and the first week in June reflect the low mobility of the birds during the mating and nesting census. Numbers of birds ranging from 1 to 8 were flushed on 32 miles of census line during this period, and the population estimates ranged from 3 to 21 birds per section. Beginning with the middle of June the presence of the broods was clearly indicated and estimates for the last half of the month were 104, 168, and 181 birds to the square mile on three consecutive censuses.

### Remarks

The forty-acre plot studies showed a wide variation in the number of birds found on the areas. The results at the Midland (8 drumming logs and apparently 3 pairs of grouse using the area with considerable regularity) are contrasted with the findings at Gladwin and the Hanson where very few birds were flushed. It is believed that these differences are too great to accurately represent population differences in the two areas, but they do indicate that more favorable cover and denser populations occur in some parts of the state than in other districts. A comparison of the censuses by King's method at Cusino and Pigeon River indicate that the population is much heavier in the Lower Peninsula area than around Cusino. However, the decided difference may be partially due to the fact that the Cusino area appears to be deficient in brood cover while the Pigeon River sample is excellent from the point of view of the range of young birds.

### Experimental Cover Improvements

Midland -- Several small plots were burned over during April and June on an area set aside for experimental cover improvement. Approximately 75 hours were spent in locating the plots, making a cover map of the area, supervising the burnings, and checking up on the vegetation after the ground had been burned over.

### Prairie Chicken

#### Mating Grounds

Escanaba River -- Approximately 16 square miles were covered in the survey of mating grounds. About 50 hours were spent on 20 mornings listening and looking for such areas. Only a single prairie chicken was found engaged in the courtship display. This lone bird was on a high grassy ridge in an abandoned field.

Cusino -- No time was spent in looking for these grounds. Incidental to the food patch planting, three mating areas were located near the Bullock Ranch in the Seney Marsh. All three grounds were on small fairly open knolls with aspen, scattered jack and Norway pines as the tree cover and grass and blueberries as the most conspicuous ground vegetation. Since no morning observations were made, no information was obtained in regard to the numbers and actions of the birds.

Munuscong -- Only one morning was devoted to driving and listening for booming birds. On that occasion one ground was found and booming was heard at one other location. Due to the lateness of the day the birds in this area boomed so infrequently that they could not be spotted. Throughout the month of May chicken booming was heard north of the Munuscong River, but this grounds likewise was not located. The mating area at which the birds were observed consisted of grass-covered knolls with a few scattered birch trees. The area had been plowed for pine planting several years ago. The four cocks were quite active on June 5th, probably due to the presence of a single female chicken.

Lunden -- Miller devoted 36 hours to this work in various areas throughout his district and covered approximately 150 sections. He flushed birds from three known dancing grounds and received reports of six others. Baumgartner devoted 17 hours to looking and listening for dancing chickens and sharptails in and near the Pigeon River State Forest. He observed the birds on two of the grounds reported by Miller and also located three other mating areas. About fifty sections were covered by this survey. Approximately 100 birds were seen on the seven grounds where Miller received information on numbers. Thirty-six birds were observed on four grounds by Baumgartner and C.C.C. enrollees at Camp Pigeon River. All were males or unidentified as to sex. The fifth area, near Vanderbilt, was never definitely located. Reports indicate that it has been used for several years. All of these mating ground locations were on knolls or flats that had either been farmed or pastured or were burned over ground covered with a sparse growth of trees and shrubs. The chickens were generally inactive, probably due to the fact that no females were observed at the grounds.

Hanson -- The work with prairie chickens was concentrated in an area of roughly 50 sections south and west of Portage Lake and including country that is well known for the prairie chicken flocks that are seen there in the fall. Forty-six hours were spent on eight different mornings in an effort to hear and locate booming birds. Three dancing grounds were found. Maximum counts made were 9 (4 males and 5 females), 4 (sex not determined), and 11 (7 males and 4 females). Failing believed that there were at least three other grounds in this area with 35 to 40 birds engaging in the courtship displays. One other ground on the Grayling airport was observed by Mrs. Baumgartner. Seven birds were flushed at this location about the middle of May. The cover that the chickens seem to prefer in this district consists of level grassy openings in abandoned farm lands.

Gladwin -- A limited amount of work on prairie chickens in this district led to the location of one dancing ground east of the Refuge. Seven male birds were observed on one morning as they danced on a hilltop in a pasture that was being plowed up for planting. Attempts to locate birds in Clare County met with no success.

Midland -- Approximately 168 square miles were covered in the mating ground survey. Twenty-five hours were spent on this work and five grounds were located with a total count of 46 birds. Four of the grounds were in pastures or fields while the fifth was on a sand ridge. All were in or near wild lands.

Iosco -- Six early morning trips were made to locate prairie chicken dancing grounds. Nineteen hours were spent on this work and two mating areas were located. Ten birds were at Site 1 on the morning of April 23 while only two birds were flushed at Site 2. It is doubtful if the true dancing ground at Site 2 was located. Site 1 was a bare grassy knoll very sparsely covered with jackpine. Reports of two or three other sites were received, but the birds could not be located.

### Remarks

One hundred and seventy hours were spent in locating and making observations of prairie chickens dancing grounds. In this survey over 500 sections were covered and 127 dancing grounds were located. These grounds were visited by at least 250 birds. In general the grounds were on knolls in wild land often adjoining corn and other grain fields or abandoned farm land. The results suggest that the prairie chicken are most abundant and widely distributed in the Midland and Lunden districts.

### Census

Escanaba River -- Twelve prairie chickens were flushed on the 253 miles of horseback census route giving an average of .047 birds per mile in contrast to .226 sharptails per mile.

Cusino -- Incidental to the food patch plantings 11 chickens were seen in the Seney Marsh on 19 days spent in that area. A single egg that had apparently been dropped in the open ground was also noted.

Other areas -- No observations.

### Food Patch Plantings

Escanaba River -- Four one-acre patches of mixed grain were put in for sharptails and prairie chickens.

Cusino -- Sixty acres of grain plantings were put in on the Bullock Ranch in the Seney Marsh. Nineteen days plus 132 C.C.C. man-days were required to prepare the ground and plant the grain.

Other areas -- No plantings.

### Sharp-tailed Grouse

### Census

Escanaba River -- Two hundred and fifty-three miles were covered by horseback over three routes during May and June. Fifty-seven sharptails were flushed in .134 hours giving an average of .226 birds per mile. In connection with nest surveys by C.C.C. crews a check was made on the number of birds flushed. The figures obtained were considerably smaller than the results for the dancing ground surveys and indicate that the latter method gives a more satisfactory population estimate. A record of the cover conditions in which the birds were found was kept during this survey. In most cases the birds were found to be spending the day in the edges of the low willow and alder thickets or else in the higher grassy knolls about the dancing grounds.

Pigeon River C.C.C. — Some effort was made to check on the distribution of the sharp-tails released near Camp Pigeon River. Small flocks of the birds were flushed infrequently but could not be located after the middle of May.

Trout Lake — On two occasions several hours were spent by Baumgartner and Snyder and Baumgartner and Jankowski in the areas where the sharp-tail plantings were made during the winter. No birds were seen nor were any fresh signs noted.

### Mating Grounds

Escanaba River — Approximately fifty hours were devoted to sharp-tail dancing ground work. Observations were made on twenty mornings. Six mating areas were located on the sixteen sections carefully surveyed. The maximum count for the six grounds was 54 birds. In general the males outnumbered the females, but on some mornings there were more hens than displaying cocks. Activity appeared to be at its height in early May or perhaps in late April. By the end of May the birds were conspicuously more quiet.

Four of the grounds were burned over areas; the other two abandoned farm lands. All were situated on grass knolls or ridges covered with a sparse stand of aspen, maple, cherry, hazel, sumac, etc. All of the grounds were within half a mile of wet willow and aspen swamp borders. None were near land that is now in cultivation.

### Nests

Escanaba River Tract — One nest was located by a C.C.C. crew. Approx. 220 C.C.C. man-days were spent in combing the areas about the dancing grounds and Semeyn devoted considerable time to this project. The nest was found on June 4 and fenced in on the following day. On June 7 the nest was deserted.

Crystal Falls — Baumgartner spent one day looking for sharp-tail nests south of Crystal Falls. Several birds were flushed but no evidence of nesting was obtained.

### Food Patches

Escanaba River — Four one-acre patches of mixed grain were put in in late June. Semeyn spent approximately ten hours on the preparation and planting and there were approximately ten C.C.C. man-days devoted to the project.

### Remarks

The census and dancing ground work at Escanaba River indicates that the sharp-tails outnumber the prairie chickens about 5 to 1. There appears to be a fairly uniform distribution of the birds over the open country in the townships west and south of the Tract with a heavy concentration north and west of the Cleveland Homestead.

Woodcock

Escanaba River -- One brood of 8 young was discovered near headquarters. This is twice the normal size and suggests that two hens had laid in one nest or else one female had adopted a set of young birds that had been deserted. Broods and old birds were observed occasionally.

Munuscong -- One brood was observed.

Other districts -- Adults were occasionally observed, particularly in the Pigeon River Forest area.

Predators

Pigeon River -- Two grouse kills were reported at Pigeon River. An owl (species?) was believed to be the predator.

Gladwin -- Red-tailed hawks were common in the Houghton Lake Forest this summer and appear to be killing some ducklings. A low water table in this area has greatly reduced the amount of escape cover and exposed waterfowl to natural enemies.

Other areas -- No reports of predation.