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STATUS OF MIGRATORY GAME BIRDS: 1944-45

Prepared in the Section of Distribution and Migration  
of Birds, Division of Wildlife Research

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INTRODUCTION

Management of wildlife rather than alternating decline and restoration, must now be the guiding concept to assure the reasonable recreational use of these resources. The recovery of the populations of most species of our migratory game birds has been termed "the miracle of conservation," but events of the next few years will show whether the administrators and sportsmen are able to perpetuate this "miracle." The army of hunters is sure to increase with a resultant increase in the pressure that will be exerted against all wildlife. The ability of Nature to meet the demand will depend in no small part upon the wisdom and reason that is exhibited by all those who regulate for and participate in sports afield.

This leaflet is prepared to acquaint sportsmen, conservationists and wildlife administrators with a brief resumé of the status of the different groups of migratory game birds. It is based chiefly upon investigations of the Fish and

Wildlife Service, augmented by those of officers of the Canadian National Parks Bureau.

## PART 1: MIGRATORY WATERFOWL

### Spring Migration

As a result of the annual inventory taken in January 1944, the total North American population of game waterfowl (ducks, geese, swans, and coots) was estimated at 125,350,000.

The usual check was made on the spring migration and 300 reports were received. On gross analysis for waterfowl in general, these showed 117 reports of increase, 73 of no change, and 26 of decrease. The percentage of observers that reported increases was 3 percent below that for 1943, but this was entirely absorbed in the percentage of those reporting no change. No important game species showed any conspicuous losses although the status of the Green-winged Teal and the Wood Duck indicated that these species would bear watching.

According to reports from the biologist of the Mississippi Flyway the Wood Duck situation was complicated by heavy predation at the nesting season during floods in the Mississippi Valley.

On the basis of the flyways, the most impressive gains were registered for the Central region.

### Breeding-Ground Surveys

#### Canada

The waterfowl breeding grounds in the Maritime Provinces of Nova Scotia, New Brunswick, and Prince Edward Island were surveyed for the eighth consecutive year by the biologist of the Atlantic Flyway. Production of the important Black Duck appeared to be normal with increases recorded also for both the Blue-winged and Green-winged Teals, as well as for the Ring-necked Duck. The Pintail has become established as a breeder in Westmoreland County, New Brunswick, and still another breeding duck was added to this Province with the discovery of a Redhead nesting on the St. John River in the general vicinity of Fredericton. The opinion among sportsmen indicated that the Canada Geese of the northeastern flight were slowly increasing.

Canadian officers reported that the Black Duck made no important gain in the Provinces of Ontario and Quebec.

The need for a detailed study on the breeding grounds of the Canada Geese that concentrate so heavily in the Horseshoe Lake area of Illinois, caused the biologist of the Mississippi Flyway to spend most of the summer in the region of James Bay, Ontario. Nevertheless, through the courtesy of the Canadian National Parks Bureau, a copy of the report of the Chief Federal Migratory Bird Officer for the Prairie Provinces, was made available.

As a result of the investigation of the Mississippi Flyway Canada Geese, both on their breeding grounds and later during the migratory and winter seasons, it was obvious that a close management program was imperative.

Habitat conditions throughout most parts of the Prairie Provinces were unusually good and left little to be desired. Nevertheless, and while not visited by an investigator of either Government, reports indicated a considerable loss due to drought in southern Alberta and southwestern Saskatchewan. On the other hand, the Canadian biologist reported that in the Peace River region of Alberta and the lake country to the north of this stream, the numerical status of ducks was of a high order. He recorded this as one of the finest waterfowl producing areas that he had ever seen. The Mallard was the most abundant with the Lesser Scaup a close second -- these two species together representing more than half of the waterfowl population observed.

Similar conditions prevailed in the great breeding marshes of southern Manitoba where rainfall was normal, which resulted in the filling to capacity of hundreds of sloughs that previously were dry, and the highest lake levels recorded during recent years. An abundance of ducks was reported on Lake Winnipegosis and the great marshes around the southern ends of Lakes Winnipeg and Manitoba. In this lake region the Mallard, Black Duck, Canvasback, and Ruddy Duck showed a marked increase and a slight increase was recorded for the Redhead. Little or no change was noted in the status of the Lesser Scaup, Baldpate, Gadwall, Green-winged Teal, and Shoveler.

Other urgent assignments prevented the biologist of the Pacific Flyway from undertaking investigations north of the United States, but here again, the Canadian National Parks Bureau cooperated by making available a copy of the report of the Chief Federal Migratory Bird Officer for British Columbia. Investigations in the Cariboo region, the principal waterfowl producing district in that Province, revealed that drought deterioration of the nesting habitat that existed a few years ago, had been greatly modified by the heavy rains of the last year or two. The investigator reported that at no time in his experience had conditions been so favorable for waterfowl which resulted in more widespread distribution. He found, however, that three species, the Gadwall, Redhead, and Ruddy Duck had declined numerically. The Mallard was the most abundant species, followed by the Ring-necked Duck and the Lesser Scaup. Strangely enough, considering its importance in the Pacific Flyway, no Pintails were found nesting in the areas studied in central British Columbia. The Redhead and Ruddy Duck also were entirely absent and only one Canvasback was seen during the entire summer.

#### Alaska

No special waterfowl investigations were made in Alaska, but such reports as were received from wildlife agents of the Alaska Game Commission indicated a normal season. A definite increase in the populations of Pintails and Widgeons was anticipated.

#### Newfoundland.

Two biologists of the Fish and Wildlife Service again spent several weeks in Newfoundland, including a short trip to the coast of Labrador. No important change was detected in the status of the nesting waterfowl.

## United States

Habitat conditions on the National Wildlife refuges serve as a unit for measurement of other comparable areas. Generally, throughout the country, nesting conditions were excellent and a review of data from refuges in North Dakota, South Dakota, Montana, Nebraska, Minnesota, and Utah, indicated that the production from potential habitat averaged one nest per acre. This average was much higher in prime nesting habitat for field records showed nesting densities averaging from 3 nests per acre on the Lower Souris refuge in North Dakota to 6.6 nests per acre on the Lacreek Refuge in South Dakota. Even higher densities were reported from some parts of the Bear River Refuge in Utah where an average of 9.6 nests per acre was found in one study area.

## Fall Migration

Never since the all-time low of the waterfowl population 10 years ago, was there so much discussion concerning the status of the ducks and geese, as transpired during and after the fall migration. It is now history that the 1944-45 shooting season was the most freakish in the memory of the oldest hunters. Conflicting reports were current in many States as well as among sportsmen and conservation agencies generally.

In many parts of the country the ducks and geese -- delayed in Canada by mild weather and an abundance of food -- were nearly a month late. Some famous ducking areas, particularly on the Atlantic Coast, never did have a heavy flight. Other sections of the country, particularly in the Great Plains region, reported the largest supply of birds in two or three decades.

A report from the biologist of the Pacific Flyway indicated that Whitefronted, Cackling, and Snow Geese were exceedingly abundant at Summer Lake, Oregon, in the Klamath Basin, and in the Sacramento Valley. Pintails, Widgeons, and Mallards also showed a considerable increase, these three outnumbering all other species. In northwestern Washington the Black Brant appeared in normal numbers. Despite these early reports of abundance, shooting in the Pacific Coast States and in those of the Great Basin, was erratic and varied greatly from day to day.

On the Great Plains the situation was entirely reversed, the flight through eastern Montana, Wyoming, the Dakotas, Minnesota, Nebraska, Colorado, and Kansas, being particularly heavy. In some parts of this region, reports indicated the presence of the greatest concentrations in 15 or 20 years, the majority being Mallards, followed by Pintails and Widgeons, with notable flights of Redheads, Ruddy Ducks, and Canvasbacks.

Throughout the length of the Mississippi Valley, the flight was generally late, but locally it provided fairly good shooting. Absence of an early freeze prolonged the flight and prevented the customary concentrations in deep-water areas, the birds drifting slowly southward over a wide expanse of country. Warm weather prevailed into late November and good "duck days" were scarce in many areas until after the latter part of December. Even in the famous duck marshes of Illinois, Missouri, and Arkansas, shooting was decidedly "spotty" although on some days many good bags were made. Great numbers of birds were reported on the St. Clair Flats in Michigan and on the Lake Erie Marshes of northeastern Ohio, but shooting was generally poor.

in both of these States.

Among the States of the Atlantic coast the general situation was unsatisfactory and only a few recorded good shooting. As so frequently happens the migrant birds of the northeastern flight did not travel far to the south so that most of the shooting between Long Island Sound and Delaware Bay was at locally bred birds. Because the large flights from interior breeding grounds reach the Atlantic coast in the vicinity of Chesapeake Bay, Maryland had good shooting. South of that State, however, no heavy flight was observed and shooting was generally unsatisfactory in coastal Virginia, the Carolinas, Georgia, and Florida. An exception was recorded for Canada Geese which exhibited a definite increase and provided good sport at a few favored areas.

A total of 321 reports were received from the Service corps of migration observers. In commenting on the status of waterfowl in general, the percentage of those reporting increase fell off two points as compared with 1943 figures, but this was absorbed in the "no change" classification. Also, in this same comparison, losses in the "increase" percentages were recorded for many important game species. These deficiencies were not large in any instance and were readily accounted for by the erratic nature of the migration which, in effect, by-passed heretofore important areas.

#### Wintering-Ground Survey

Winter operations were again confined to the United States, a regrettable necessity, since there was evidence of an exceptionally heavy flight that proceeded into Mexico, and possibly also to certain little-known Caribbean areas. For example, the biologist of the Central Flyway, stationed at Brownsville, Texas, reported an increase of 20 percent in the number of Pintails, that passed on to the east coast of Mexico, while the biologist of the Pacific Flyway similarly cited reports of heavy flights into the western part of that country. A volunteer observer reporting from St. Petersburg, Florida, stated that on January 21 while crossing Tampa Bay in a motor cruiser, a flight of 15,000 to 30,000 ducks was observed flying low over the water toward the northwest. These birds may have come from the southern part of the Everglades, or from some point in the West Indies.

The Biologists of all four flyways were actively engaged in checking concentration areas in their respective regions while personnel in the Washington office gave much attention to the analysis of the reports received from various sources. The manager of the Back Bay (Va.) National Wildlife Refuge reported the Snow Goose in a healthy condition. Sample counts indicated a ratio of about three immatures to every adult. A study of reports of the recovery of banded ducks indicated that, despite the erratic nature of the migratory flight, the actual 1944 take by hunters may have been larger than in 1943. During the 1944 season 222 more reports of banded ducks were received than in 1943. It is interesting to note that of the more than 3700 records of banded waterfowl received during the season only 61 were for the Lesser Scaup or "Blackhead." Actually, more returns were received for the Redhead than for this species although a smaller number of Redheads had been banded. Nevertheless, in Core Sound, N. C. the Lesser Scaup was reported as more plentiful than the marsh ducks.

## January Inventory

As a result of the conflicting reports from many States, and from sportsmen's organizations and conservation agencies, the shooting season ended with much confused thinking regarding the current status of the ducks and geese. The usual plans for the annual inventory had been made and this operation was carried out with a coverage of the country that was most gratifying. In general, it may be recorded that the Service representatives and their assistants covered all important water-fowl wintering areas. Air coverage, chiefly through the cooperation of the Coast Guard, Naval Air Service, and Army Air Forces, was virtually complete, and it should be pointed out that most of the men engaged in this work are those who have participated since its inception ten years ago. Most of the areas accorded aerial surveys were double-checked from the ground.

Analysis of the voluminous reports showed that the continental population of game waterfowl might consist of nearly 6 percent fewer birds than were estimated in 1944. Whether this represents a real loss, an over-estimation in 1944, or is due to uncounted millions that may have wintered in Mexico, Cuba, Hispaniola, and even in Central American countries, cannot be explained.

While such news is somewhat disturbing it is not necessarily any cause for alarm, particularly when considered with reports of the preceeding breeding season and the fall migration. On the basis of these there was reason to anticipate a reasonable increase, but in view of the unusual conditions that prevailed it is not improbable that if there was such an increase the surplus birds spent the winter outside the limits of the continental United States or were so widely dispersed that they successfully eluded the Government tabulators. Nevertheless, it also must be pointed out that if this increase does exist, it is much smaller than was originally anticipated.

On the basis of the four flyways, the losses appeared almost entirely in the Atlantic and Mississippi regions, which is in accord with the migration reports. Increases were recorded for both the Central and Pacific flyways. From all flyways there is evidence that the status of certain species must be watched. Among these are the Canada Goose, Redhead, Ruddy Duck, and Lesser Scaup. The take of the Canada Goose has been excessive in the Mississippi Flyway, while heavy kills of Redheads and Ruddy Ducks were recorded at a few points in the Central Flyway. Despite this general statement regarding the Canada Goose, reports from both the Mattamuskeet (N.C.) and St. Marks (Fla.) National Wildlife Refuges indicated a healthy increase in the flocks that winter at these points. At the former it was estimated that 50,000 geese were present in mid-November which is about twice as many as were there in 1943 at the same time, while the estimate of 14,000 at St. Marks represents a 20 percent increase. A few species, as the Gadwall, Pintail, Baldpate, and Green-winged Teal, and the Snow and White-fronted Goose, registered gains throughout the country.

In commenting on the inventory figures for the coastal bays and lakes, ox-bow lakes of the lower Rio Grande, and other freshwater areas of southern Texas, the biologist of the Central Flyway summed up the status of the different species as follows: No change, Mottled Duck, Gadwall, Green-winged Teal, Blue-winged Teal, Shoveler, Canvasback, Lesser Scaup, and Ruddy Duck; Increase, Baldpate (10 o/o), Pintail (20 o/o), Redhead, Snow Goose (10 o/o), Canada Goose (10 o/o), and Coot (15 o/o).

### PART 2: OTHER MIGRATORY GAME BIRDS

#### Woodcock

Following the 1944 spring migration, 112 reports on the status of the Woodcock were received. Tabulation of these in the usual manner showed a gratifying increase



that is best shown in the following table:

TABLE 1.---Percentage analyses of the spring-migration reports on the status of the Woodcock for the years 1943 and 1944

Year	Status...		
	No change	Increase	Decrease
1943 . . . . .	51	24	25
1944 . . . . .	53	29	18

On the permanent census area in eastern Maine, personnel of the Cooperative Wildlife Research Unit at Orono, have conducted a census of this species by the "singing ground count" method for 8 consecutive years. In 1944 these studies were carried on between April 18 and May 21, when all potential singing grounds were visited at least twice and some of them three or four times to guard against temporary usage or other discrepancies. In addition to the chief census area, four supplementary areas had been studied for 4 years. An analysis of the counts from all areas showed an increase of 26.0 percent over the figures for 1943. Only one of the supplemental areas showed no change, the increase on all others being from 10 to 100 percent. On the chief area the studies indicated an abundance comparable to the peak figures of 1938 and 1939. This is easily the best report to be received since the catastrophe of 1940.

The biologist of the Atlantic Flyway resumed similar studies of this bird in the Maritime Provinces of Canada. While the data obtained were by no means as impressive as those from the State of Maine, definite though small increases were recorded from New Brunswick and Prince Edward Island. Unfortunately, a decrease was recorded for Nova Scotia. In that Province the Chief Federal Migratory Bird Officer was reported as being disturbed by the continuing decrease in the numbers of this species.

Reports from Canadian sources on the status of these birds in the vicinity of Ottawa, Ontario, indicated no change over a three-year period.

Studies in three areas in Pennsylvania by the Cooperative Wildlife Research Unit at State College showed no change in one, a definite loss in another (which has deteriorated environmentally), and a moderate gain in the third. The report concludes with the statement "as far as I can tell from our checks (which have been extensive), we have about as many birds as last year."

Reports from Minnesota indicated an unexpectedly good supply of Woodcock in that State.

In summation, the spring migration and breeding ground studies of this species yielded the most favorable reports to be received for several years. These were later borne out by a report from the Maine Cooperative Unit to the effect that the fall flights were very good and that in many parts of the State they were the heaviest in several years. A similar report was received from Illinois. Over the range as a whole, however, and probably due in part to erratic weather conditions, the fall flight did not measure up to expectations and in gross analysis, the reports for that season actually showed a slight decrease when compared with similar data for the fall of 1943.

Wilson's Snipe

Reports covering the 1944 spring migration of the Wilson's Snipe again showed a slight improvement and it was hoped that a turning point in the status of this species might be at hand. The gain recorded was not impressive but to have even a small gain for two successive years was encouraging. Percentage comparisons are shown in Table 2.

TABLE 2.--Percentage analyses of the spring-migration reports on the status of Wilson's Snipe for the years 1942, 1943, and 1944

Year	Status		
	No change	Increase	Decrease
1942 . . . . .	56	18	26
1943 . . . . .	61	21	18
1944 . . . . .	64	24	12

In his extensive operations in the Maritime Provinces of Canada, the biologist of the Atlantic Flyway found little signs of improvement in the status of this bird. To quote his report: "I can easily notice a decrease in the number of Snipe in New Brunswick as compared with six or seven years ago. I cannot account for this decrease since there have been no harmful factors noted in this breeding area." In southern Manitoba, Albert Hochbaum of the American Wildlife Institute, reported that Wilson's Snipe showed no numerical improvement, rather, he "gained the impression that there were fewer than ever this year." He added that this may have been due to higher water levels as many of their favorite haunts were flooded. The Chief Migratory Bird Officer for the Prairie Provinces, in commenting on Mr. Hochbaum's report, stated that it was in agreement with his own findings, as he had found snipe to be universally scarce over a wide expanse of territory.

During the fall migration and waterfowl hunting season a few widely scattered reports were received to the effect that Wilson's Snipe had been observed in fair numbers. There is usually a good concentration in Louisiana and Florida, while a report from central Illinois indicated a "heavier than usual" flight in that area. Also, there was apparently a good flight in the Pacific Northwest. Analysis of all fall reports, however, showed a continuation of the unsatisfactory status of this species.

Rails and Coots

As game birds the rails are of little interest except to a small number of sportsmen southward from Maryland along the Atlantic Coast. The Sora or Carolina Rail is the species chiefly hunted although, under the name "marsh hen", the larger King and Clapper Rails are locally pursued. All available information indicated that they were in a satisfactory numerical condition.

The inventory of January 1944 had shown a heavy increase in the number of Coots. While reports on the spring migration did not show such large gains, they nevertheless indicate a continued increase. All reports from the United States and Canadian breeding grounds show this bird to be one of the most common of all

marsh-nesting birds. Commenting on its status in central British Columbia, the Chief Migratory Bird Officer for that Province stated that: "Taken as a whole the Coot may be rightly considered as one of the commonest breeding waterfowl in the region."

#### Mourning Dove

Continued improvement in the numerical status of the Mourning Dove was reported generally throughout its breeding range. This was particularly noteworthy in the Southeastern States. As was the case in the fall of 1943, shortage of ammunition, gasoline, and other war-induced causes, had influence in keeping down the total kill. This is fortunate, for the reason that there are still improvements to be made in the management program. Because of the breeding habits of the birds, a perfect program may not be possible but all evidence thus far accumulated, (and it is now fairly extensive), indicates that it will be better management not to permit any hunting of these birds before October 1 in that part of the country south of the northern borders of North Carolina, Tennessee, Arkansas, and Oklahoma.

#### White-winged Dove

Continued study of the White-winged Dove in Texas by the biologist of the Central Flyway showed a trend toward establishment of new breeding areas north of the Rio Grande Valley. This wider distribution in counties away from the border may be an important factor in the salvation of the species as a game bird for the reason that extensive destruction of its habitat in the Valley for agricultural purposes is rapidly reducing the remaining nesting grounds.

The experimental management program that has been in progress for the past two years has worked satisfactorily and, in general, has the support of the sportsmen and biologists who have studied the problem.

No important changes of the situation in Arizona were recorded.

#### Band-tailed Pigeon

The biologist of the Pacific Flyway gave special attention to these birds during the 1944 season. In his report he states: "The Band-tailed Pigeon has undoubtedly shown a healthy increase in numbers during the past few years." This investigator reported a good crop of pigeons in the oak-covered foothills in California, not less than 2,500 having been seen on November 26 in the general vicinity of Bakersfield. Reports of increase also were reported from New Mexico and Colorado.

In most of the States where an open season is provided, the Band-tail is not a popular game bird and relatively few are killed. The heaviest kill is made in the foothills along the San Joaquin River, and in the southernmost counties of California. Unfortunately, reports indicate that many hunters who shoot these birds consider them merely as targets and make little effort to retrieve their game, resulting in unpardonable waste of valuable food.

#### Summary of 1945 Operations

To summarize the migratory game bird situation as it appears on July 1, 1945, it may be reported that the biologists of the Atlantic and Mississippi Flyways are

again in Canada, and have submitted preliminary reports.

Despite the highest water on record in the Maritime Provinces, it apparently has not unduly interfered with the nesting of ducks and a normal crop is anticipated in New Brunswick and Nova Scotia. To offset this favorable situation in the north-east, the biologist of the Mississippi Flyway, after working across Manitoba, Saskatchewan, and Alberta, sums up his report with the statement: "All in all the duck situation so far doesn't look good and it would be safe to say that at least there will be no increase." The drought area of southern Alberta and Saskatchewan has increased in size. Rains during the period April 1 to June 4 for the three Provinces averaged together were only 71 percent of normal as compared with 115.9 percent a year ago.

On the other hand, a report from northern Iowa shows an increase in the number of nesting ducks, particularly Blue-winged Teals and Mallards. A report from the Malheur Refuge in Oregon, under date of June 13, states that the Canada Goose production is the best during the past 10-year period. Preliminary checks of the duck population indicates that it is a little low.

Reports on the Woodcock situation in Maine, the Canadian Maritime Provinces, and Ontario, show slight gains for the first and second regions, and no change in the third. The current nesting season has been generally satisfactory for the Mourning Dove.

In conclusion, it is appropriate to make a quotation from a columnist of a Pennsylvania paper now on the staff of "Stars and Stripes" in Paris, France. He writes: "Just so the people at home hold the conservation line intact for us, when we get back we'll pitch in there to help you." This sentiment has been echoed many times by the men in the fighting forces, and they mean it.