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BIRDS OF THE MIRAMICHI AREA OF NEW BRUNSWICK

WITH PARTICULAR REFERENCE

TO THE

DUNGARVON-RENOUS AREAS

MAY 7th TO SEPTEMBER 26th

1954

by

J.K. LOWTHER

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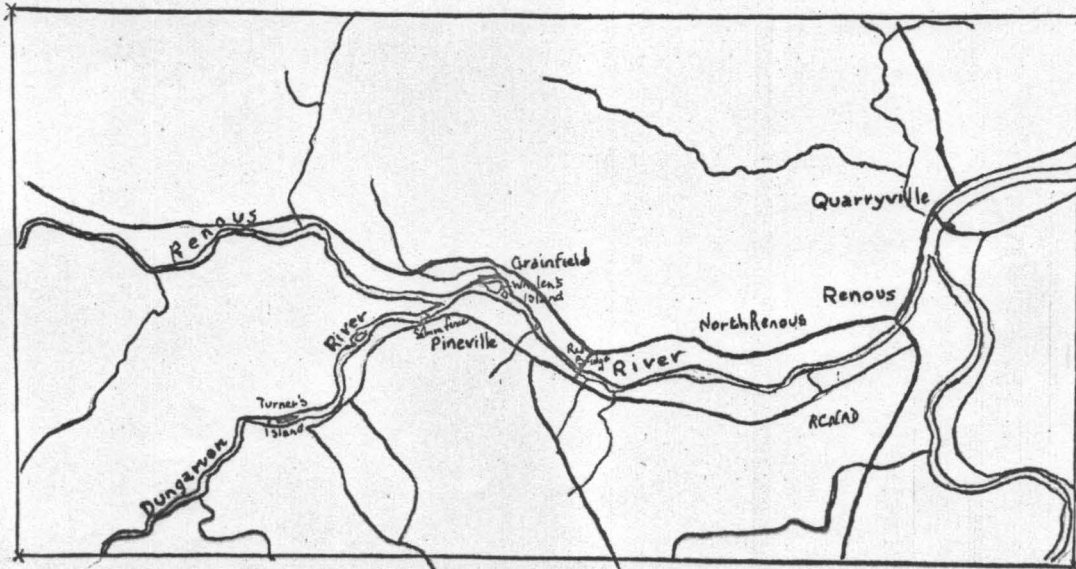
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INTRODUCTION

This is a general survey of the bird life of the Miramichi, particularly the area of the lower Dungarvon and Renous Rivers. All findings are not covered in this report, but will be in a later one of more scientific value. However, there is an annotated check list of the species seen.

For spot-identification of the birds, Roger Tory Peterson's "Field Guide to Birds" was used. P.A. Taverner's "Birds of Canada" was called upon for the final identification.



Map of the survey area. RCNAD - Royal Canadian Naval Ammunition Depot.

The Dungarvon-Renous area covered approximately ten miles of stream, three miles of which was on the lower part of the Dungarvon River from Turner's Island down to the mouth of the river. The remaining seven miles covered the Renous River from the upper end of the settlement of Grainfield down to the mouth of this river at Quarryville.

The south side of the area is vegetated mostly by new growths of Poplar (Populus sp.) and Maples (Acer spp.). Coniferous trees were in the minority in the upper, middle and lower sections as these were cleared by fire some twenty years ago, and the hardwoods have taken over. However, in the upper and upper-middle sections, "Juniper" or Tamarak (Larix Laricina), Hemlock (Tsuga canadensis), White Spruce (Picea glauca), Black Spruce (P. marianá), Jack Pine (Pinus banksiana), White Pine (P. strobus), Balsam (Abies balsamea), and the Northern White Cedar (Thuja occidentalis).

The north side of the area was more heavily settled than was the south, therefore there was more cleared and cultivated land.

The rivers themselves vary in characteristics. The Dungarvon section is relatively shallow under normal summer conditions. Three deep pools could be found in its three miles. The Renous section, however, is generally deeper, with fewer rapids and gravel bars. Instead, many boulders presented the navigational problems. Deep pools were far more numerous per mile, hence the Renous part of the area permitted better chances for salmon angling than on the Dungarvon.

During the 1954 season, from May 7th to September 26th, a total of one hundred and forty-one days, there were thirty-seven days of rain, and forty-one which were overcast. In other words, less than fifty per cent of the time was clear and sunny, which is a small proportion.

I am indebted to the people of the survey area for reporting some of the birds, and especially to the younger children of the settlement who were very helpful with the broods. Mr. Ward Coates and others of the Merganser Control group were very helpful in connection with waterfowl records. The Late Captain Peter G. Whelen of the Royal Canadian Naval Ammunition Depot in Renous, very kindly gave me permission to conduct bird surveys on the grounds.

I am most indebted to the Atlantic Biological Station of the Fisheries Research Board for their cooperation in the survey.

GAVIIDAE

A.O.U. 7 COMMON LOON Gavia immer

Common Loons were fairly abundant in the tidal waters, and in the lakes of the Miramichi. The occasional bird was reported in the non-tidal parts of the streams.

One adult and one downy young was seen at the junction of the Renous and Southwest Miramichi Rivers, on June 15th.

During July, one was collected for scientific purposes by a bird control party of the Department of Fisheries, on Cains River. On July 2nd, two were heard calling at Holmes Lake at the headwaters of the Renous. In Tuadook, Louis and Renous Lakes, four more adults were seen.

At Oak Point, on the north shore of the Miramichi tideway, three Loons were heard calling at the one time. This was on August 3rd. Again on August 10th, two were heard at the one time.

September 26th, on the Bay of Chaleur, above Bathurst, many Loons could be seen off the shore. Approximately fifty were seen from the car, while travelling between Bathurst and Campbellton. They usually occurred in groups of three or four.

PHALACROCORACIDAE

A.O.U. 120 DOUBLE-CRESTED CORMORANT Phalacrocorax
auritus

In the lower part of the tidal waters of the Miramichi, Cormorants were abundant. Late August and all September saw the birds moving upriver to Millerton on the Southwest Miramichi.

On August 3rd, five Cormorants were noticed off Oak Point. At the mouth of the Bartibog River were three more.

Stormy weather on August 10th prevented a count on the main river. It was not possible to visit the protected coves along the shore.

On September 16th, ten Cormorants could be seen, sitting on the boom at Trafalgar Mills in Nelson, N.B.

Previous years have shown many Cormorants further downriver. One day in September, 1952, innumerable birds were seen around the wharf at Neguac, N.B. Fishermen in the Miramichi complain vigourously about the too many "shag" for the good of the fishing industry.

ARDEIDAE

A.O.U. 190 AMERICAN BITTERN Botaurus lentiginosus

Bitterns, or "Stake Drivers" as the local residents call them, were found on the lower parts of the smaller streams, and along most of the two main branches of the Miramichi.

In the Dungarvon - Renous area, a total of eight different adults was seen on three miles of stream. The young of one of these pairs were reported to the author by one of the local lumbermen, Mr. Weldon McEvoy. He found two young in a swampy piece of ground bordering on the road.

In several marshy areas along the main Southwest Miramichi, Bitterns were reported. However, these were not verified, and an accurate count cannot be given.

A.O.U. 194 GREAT BLUE HERON Ardea herodias

The abundance of Great Blue Herons in the non-tidal areas little exceeded that of the Bitterns. However, along the shores of the estuary, in the tide marshes, they were very conspicuous.

In the Dungarvon - Renous area, the presence of four adults was noted during May. During the summer months, one lone bird was seen every evening at dusk, flying upriver and then back into the woods towards an old beaver marsh.

The tideways of the Bartibog and Oyster Rivers were two

places that one was certain of seeing Herons. They numbered from one to five at one time. The marshes at Burnt Church was another favourite Heron ground.

On September 26th, Great Blue Herons were noted in relatively large numbers along the shores of the Bay of Chaleur, between Bathurst and Campbellton. Just outside Bathurst, one area proved to be the feeding ground for nineteen birds, as well as one hundred or so Gulls and Cormorants.

At Eel Gully, near Dalhousie, was another flock of Herons, numbering twenty-four. These birds were wading about in the middle of the gully. At the upper end were several persons digging for clams. The birds were wading and feeding, quite unconcerned of the highway traffic, people and parked cars.

In the last two cases, the movement of smelts into the respective waters was the supposed cause of the concentrations. However, because of the shallowness and stillness of the water, shellfish were no doubt an easy food supply, and fish the secondary attraction.

ANSERINAE

A.O.U. 172 CANADA GOOSE Branta canadensis

Canada Geese are visitors to the Miramichi area during the spring and fall migrations only. Two adults, presumably forming a pair, settled down on the Renous River during May. They remained there for two days, and then left.

Last year, two pairs were seen by Mr. Charles Watts, student assistant for the Canadian Wildlife Service. That pair which settled on the Renous was seen also by the author. The other pair settled on the Southwest Miramichi, near Blackville.

A few birds are shot during the fall hunting season, but these are very few. More are shot further downriver in the estuary.

ANATINAE

A.O.U. 133 BLACK DUCK Anas rubripes

Waterfowl surveys in the Dungarvon - Renous area indicated very few game ducks, especially Black Ducks. Not one was caught in the traps of the salmon counting fence, whereas in the last two seasons, at least two broods would be caught, just after they had emerged from the egg.

A brood of seven young was seen in the Renous River, just below the mouth of the Dungarvon, at Whalen's Island, on May 22nd. This brood later moved up into a spring brook opposite the Island. There was a small beaver dam on this brook, and the vegetation around it was more than an attraction for the ducks.

On June 13th, a brood of eight young was reported in the Renous River just above the mouth of the Dungarvon. This report was verified the same day, by the author.

All during May, four and occasionally five adults in a flock frequented the waters around Whalen's Island.

Along the bays and tidal marshes near Oak Point, during the latter part of August and all of September, flocks of Black Ducks were noted. One flock, numbering approximately fifty birds, was seen on the main river, just off Oak Point, on the evening of September 22nd.

Bird control parties of the Department of Fisheries could give no accurate information of location, number and size

of broods on the Southwest, Northwest and Little Southwest Miramichi Rivers. They did note, however, on the comparative scarcity of the species.

A.O.U. 144 WOOD DUCK Aix sponsa

The Miramichi River system does not, from all reports and observations, support many Wood Duck. During the whole season, only three were seen on the Dungarvon and lower Renous Rivers.

One pair was noticed, towards the middle of May, at the mouth of the Dungarvon, in the Renous River. The female was seen on the evening of May 9th, and the male on the evening of May 12th. They frequented the water in front of a patch of mixed hard and soft woods, and also in front of Whalen's Island. The latter appeared to be the breeding place for Black Ducks and Common Golden-Eyes, so it is very possible that these ducks also nested on or near the Island.

Another lone female was seen on June 18th, up at Simard's fishing camps at the head of the Dungarvon. She was flushed from the edge of a still water pool, at seven o'clock in the evening.

There is absolutely no doubt that many of these relatively rare birds are "poached" during the season. Their feathers are sought eagerly by persons who tie fishing flies, and a Wood Duck nesting or feeding in the vicinity is more economically shot than are the feathers bought. The author was asked several times by various persons if he knew the whereabouts of any of these birds. Having knowledge of the purpose behind the inquiry, no

satisfactory answer was given to the persons concerned. All such persons, it may be noted, were either fishermen or guides who tied their own salmon flies.

Sub - family AYTHYINAE

A.O.U. 151 COMMON GOLDEN-EYE Glaucionetta clangula

The number of Golden-Eyes exceeded that of Black Ducks by a fraction. On the Dungarvon River, with its fifty-five miles of stream, only one brood was reported. This was caught in the down-trap of the salmon counting fence on June 14th. It was composed of six young.

Four adults frequented the lower waters of the Dungarvon all during the season. They were, from all appearances, non-breeders.

Mr. William Curtis of the Northwest Miramichi merganser control party, and who was found to be very reliable, reported two broods of Golden-Eyes. On June 11th, at Whitney Brook on the Sevogle River, he saw a brood of seven young. The following day at Johnson Bridge (just above Redbank on the Northwest Miramichi), he saw another brood of eight young.

The budworm spraying expedition, composed of the author and Mr. Earl Tucker of Pineville, N.B., came down the Dungarvon River in a canoe on June 19th, 20th and 21st, and saw no broods at all. Seven flying adults were seen during the trip, though. The merganser control party, which made several subsequent trips, reported no broods either.

On May 22nd, two broods of young were reported by one

of the younger members of the community of Pineville. At Whalen's Island, there was one brood of six young, and in the spring brook opposite the Island, was another brood of seven young.

The merganser control party on the Renous River saw one brood, but its exact size and location was not noted.

An adult pair frequented the waters at the mouth of the Renous all during May. In the middle of June, the female was seen with a brood of four, by Mr. Ward Coates, supervisor of the Miramichi merganser control experiment.

Sub - family MERGINAE

A.O.U. 129 AMERICAN MERGANSER Mergus merganser americanus

This year, on the main tributaries of the Miramichi, the Department of Fisheries and the Fisheries Research Board are carrying out a programme for the removal of American Mergansers. Therefore, it was impossible to do a survey, but the report of the control group should yield the necessary information.

It was impossible to take a complete census on all streams, but on the Dungarvon, the author was the first to come down the river, and so a complete census was taken, before the control became effective there.

In the afternoon of June 18th, the author arrived at the fishing camps owned by Dr. A. C. Simard of New York City. These camps are situated forty-eight miles upriver from the mouth. A canoe was poled up into the deadwater above the camps, but no mergansers were seen. Later reports from the guides at the camp revealed the

presence of a brood, but its actual size was not ascertained. It was estimated to number approximately ten.

On June 19th, thirteen miles of the stream were covered. This extended from Simard's camps down to Murray Jordan's camps, situated at a point known as the Lower Falls. In this length of stream, five adults were seen. The first was met, flying upriver, three miles below Simard's. The other four were seen together, sitting on rocks at the mouth of the Little Dungarvon River. All five birds were females.

The next day, another eighteen miles of stream were covered. This part of the river does not have as steep a gradient as does the upper part, hence more suitable water for Mergansers was encountered.

The first birds encountered were all flying birds. Four separate flying females, as well as one flying pair, were seen in the first five miles travelled. Following this, seven broods, involving forty-four downy young were flushed. A list, in order of occurrence, follows:

1♀	5 loc
1♀	9 loc
1♀	4 loc
1♀	7 loc
1♀	9 loc
1♀	5 loc
1♀	6 loc

Of the birds seen on this day, thirteen (ten young and three adults) were removed by shooting. The last brood encountered had five young shot.

On June 21st. the remaining seven miles of stream were covered. Two broods, involving seventeen young were seen.

On August 3rd, an attempt was made to band some Mergansers on the Bartibog. This attempt failed through unfamiliarity with the territory for two members of the party. An adult female with two young was brought down the river in front of the canoe, and a flock of eighteen young was sighted in the tideway, just below the proposed net site.

A lone, non-flying male was seen at Millerton on August 15th.

A.O.U. 130 RED-BREASTED MERGANSER: Mergus serrator

Visits to tidal waters yielded one record of this species. A brood of thirteen young, with one adult female, was sighted just forty yards off shore at Loggieville, N.B., on July 19th. The movements of the birds appeared to be little influenced by the traffic on the road, the beach and in the town.

There appears to be much out-of-season shooting of waterfowl in and around the Miramichi estuary. Most of it is just for "the fun of it". During an attempt to band mergansers on the Bartibog River, one of the local people was asked if he knew the whereabouts of any broods. He replied that he knew of two but "me and my friends have shot most of them off. At least, I think they was Shelducks!"

Another person at Oak Point told the author that if he wanted to catch some ducks, there were two bays, known as the Gully, and Robishaw Brook, that abounded with birds of this nature, whenever there was stormy weather. "I know", he said, "for we always go down there for target practice with the rifles. The ducks make tricky targets, but good ones."

There is nothing to be said to such people who carry out such foul practices. They do not respect the life of other creatures any more than they do the law which protects them. Such "pieces of paper" as the Migratory Birds Convention Act mean nothing. It is more inducive than restricting to these persons.

The only visible solution to this problem, as well as to the poaching of salmon or deer, is an educational programme in the schools, so that the young people may see how they are not only harming the game populations, but also themselves. That is providing their fathers leave enough for the young to enjoy.

ACCIPITRINAE

A.O.U. 332 SHARP-SHINNED HAWK Accipiter velox

Towards the last of the season, a few Sharp-Shinned hawks were noticed. On the six miles of road between the salmon fence and the village of Renous, six of these birds frequented the telephone and electricity wires. They were always at the same place, each time they were seen, within a range of five poles. The one nearest the salmon fence could be seen every morning and evening, sitting on the same wire, approximately the same distance from the same pole. Presumably this was the same bird that occupied the same space during May. It is also probably the bird that frequented this place for the equivalent periods, last year.

One was seen trying to make life as miserable as possible for an Osprey, over Turner's Island, three miles above the mouth of the river. The Osprey appeared to be completely oblivious of the presence of the Sharp-Shin.

A.O.U. 333 COOPER'S HAWK Accipiter cooperii

In the Dungarvon area, two Cooper's Hawks were noted during the season. One could invariably be seen around Turner's Island.

The second was encountered on September 8th, under fairly interesting circumstances. The author had a series of seven small wire cage traps for song birds, scattered at various points

about the cabin at the salmon fence. At one place, two of these traps were set side-by-side, and upon a visit, it was discovered that a White-Throated Sparrow and a Slate-Coloured Junco had been caught. In the Spruce tree above was a Cooper's Hawk sitting watching the captured birds. It was slowly dropping down, branch by branch, for a closer look. Watching the Hawk from the top of another Spruce tree nearby was a Crow. Just at the moment the Crow flew to dive at the Hawk, a pair of Blue Jays set into a dive at the Crow. This resulted in a wild chase involving all three species, The Crow found that to chase and to be chased were two different pastimes that could not be accomplished successfully at the same time. The final scene was the Hawk sitting on top of a tree approximately one fifth of a mile away, and the Blue Jays making life quite interesting for the Crow.

On Lockstead Road, between Pineville and Blackville, N.B., another Cooper's Hawk was encountered, on July 16th.

BUTEONINAE

A.O.U. 339 RED-SHOULDERED HAWK Buteo lineatus

Just one of these hawks was seen during the season. It was found on the Renous Game Refuge on July 2nd, on the side of the road near the upper end of the Refuge.

Last summer, one individual frequented an area near the mouth of Dunn Brook, entering the Dungarvon River approximately one mile above the mouth. The area the bird used was of three kinds: marsh, field and woodland. The field abounded with mice, as it was planted partially in oats. Rabbits and foxes were also numerous here, as well as many reptiles and amphibians in the swamp.

A.O.U. 352 BALD EAGLE Haliaeetus leucocephalus

Unlike last year, the river seemed to attract more Eagles, despite many disadvantages encountered for their food supply. The runs of Shad and Gaspereau this year were greatly reduced over last year. As a matter of fact, neither of these two fish came up the Dungarvon River at all.

Secondly, frequent heavy freshets this summer reduced chances of catching Salmon and Grilse. These fish were constantly on the move. Lower water temperatures allowed the fish to spread themselves over the stream, rather than concentrate in pools, or at the mouths of spring brooks.

The high water also increased the death rate of Mergansers and some other ducks, thus reducing more of the Eagles' food stores.

Also, high water kept the beaches clear of dead fish. This year there was an abundance of large Suckers which died, and were washed up along the shores. The frequent freshets kept them moved and the birds could not get much of a chance to clean them up.

During the canoe expedition down Dungarvon from June 19th to June 21st, four individuals were seen. They were far enough apart that the same bird could not have been seen twice.

Two birds found a ready food supply in the Shad and Gaspereau in the Renous River, during the latter part of May and the beginning of June. They would dive down at the fish going up over the shallow gravel bars across the river at various points.

On the Little Southwest, at Lyttleton, one was seen feeding on a salmon. Whether the eagle had killed the fish itself, or another animal had, it is not known. The fish, weighing about ten pounds, had been freshly killed. The date of observation was June 12th.

On May 18th, there was an adult soaring over the tide marsh at Newcastle, N.B. There is a garbage dump there, and it no doubt has its associated population of rats.

CIRCINAE

A.O.U. 331

MARSH HAWK

Circus hudsonius

The author did not have the opportunity to survey areas in which Marsh Hawks should be found. One was seen accidentally on August 26th at Eel Ground, the Indian Reservation on the Lower Northwest Miramichi River. It flew across the road in front of the truck, and settled down on a fence post along the side of the field.

Through binoculars, an excellent view of the bird was taken.

PANDIONIDAE

A.O.U. 364

OSPREY

Pandion haliaetus

Unlike other birds of prey, Ospreys seem to occur more in twos, threes or fours than singularly. Whether this is just an accidental occurrence, is a matter for discussion. The author feels that it is so, and the birds have found an area with a food supply concentrated enough to support several birds. Fall concentrations may be attributed to broods with parents.

As in the case of Bald Eagles, Ospreys appeared to be more abundant this year, despite high water and smaller amounts of shad and gaspereau. The two largest fishing pools near the salmon fence each had its group of Ospreys. At the pool at the mouth of Dungarvon could be seen from one to four at a single time. It is quite amazing that these birds remained about this area, as a flock of six Ravens were continually harrassing them.

The pool at the mouth of Renous River also had its group of five Ospreys, which would fish the pool when no anglers were about.

Observations on the Dungarvon Budworm Survey, from June 19th to 21st, included five Ospreys. They were seen at various points along the river, but mostly along the lower part.

During the spring and summer, two made regular flights back into the woods, passing over the salmon fence on their way.

Not once was one seen to be carrying a salmon or grilse. During June when the Shad and Gaspereau were in the river, they were the prey. Later on, Suckers, or fish of similar size could be seen in the claws of the Ospreys. Just after the beginning of August, these flights stopped.

Red Bank, on the Northwest Miramichi, seemed to be the feeding ground for six Ospreys, from the latter part of August on. Only once were the six seen together, and usually four occupied the air at one time.

One afternoon in July, there was a great disturbance in the woods just outside the Dungarvon camp. The author ran out just in time to see three Crows attacking an Osprey. They forced it down to the ground just beside the camp. Upon the sight of a human audience, the Crows rapidly left the scene. When they were safely out of sight, the Osprey took to the air, and flew in the direction opposite to that taken by the Crows.

FALCONINAE

A.O.U. 360 SPARROW HAWK Falco sparverius

Sparrow Hawks were, by far, the most numerous and most conspicuous hawks in the Dungarvon - Renous area. Like the Sharp-Shinned Hawks, they perched on the telephone and electricity wires along the sides of the roads. Between the salmon fence and the village of Renous, the wires supported twenty-one of these birds. The six Sharp-Shinned Hawks along the same route were completely separate of the Sparrow Hawks, and the two were never seen together.

Along the parts of the road beside a wooded area, only one bird was seen. The rest were always beside a hay or grain field. Before hay and harvest time, they were conspicuously absent, but once the fields were cut, they appeared. No doubt the loss of cover for the mice was the attraction.

Because of the abundance of rain this season, grasshoppers were not plentiful. Therefore, that source of food was cut out.

The Lockstead Road, is bordered mainly by wooded areas, hence only nine Sparrow Hawks were seen along its five and a half miles.

During July, August and September, Sparrow Hawks could be seen along every road, but the concentrations were greater along the less travelled ones.

Of the past three years, 1952 saw the greatest number of Sparrow Hawks. Eleven birds frequented the burnt, and partially re-

grown area around the salmon fence camp, Elsewhere, they occurred more in small groups than singularly, as was the case this year.

TETRAONIDAE

A.O.U. 298 SPRUCE GROUSE Canachiles canadensis

Of the two species of Grouse present in the Miramichi area, the Spruce Grouse is by far the less numerous.

During the season, along ten miles of paths, two broods were seen. A hen and four flying young were flushed near Gillespie Brook, four miles above the salmon fence. One was collected, and stomach analysis showed Blueberries (Vaccinium spp.) and Bunchberries (Cornus sp.) to be the food. The date of this record was July 23rd.

An adult was flushed from an alder swamp opposite Whalen's Island on Renous River on May 11th.

A.O.U. 300 RUFFED GROUSE Bonasa umbellus

As previously stated, this species of Grouse was far more plentiful than the Spruce Grouse. Within a five minute walk, in any direction from the Dungarvon camp, six broods were found.

Following is a list of the size and relative positions of the broods:

1♀		5 loc	at camp
1♀	1♂	4 loc	across river from camp
1♀	1♂	7 loc	$\frac{1}{4}$ mile back from camp
1♀		4 loc	$\frac{1}{5}$ mile above camp
1♀		4 loc	$\frac{1}{2}$ mile above camp and back from river
1♀	1♂	5 loc	$\frac{1}{2}$ mile below camp.

At Gillespie Brook, four miles above the salmon fence, two coveys were flushed, one with four and the other with five young.

On June 30th, a hen with four downy young was flushed beside the Barnaby River Bridge. The hen went through the decoying performance, making cries like an injured puppy.

Three Grouse were collected during the latter part of August and the beginning of September, and their stomach contents analysed. Seventy-five percent of the food was composed of Bunchberries and a few Blueberries. One grasshopper was found in the crop of one of these birds. Plant seeds formed the remainder of the food.

PHASIANIDAE

A.O.U. 309.1

RING-NECK PHEASANT

Phasianus colchicus
torquatus

Not a single Pheasant was seen or heard in the Miramichi area this season. Last year, three honking males were heard in the vicinity of the salmon fence during May, but they were conspicuously absent this year.

The country in this area is obviously not favourable to the natural propagation of Pheasants. Farming is done on a limited scale, and there is not enough open field. The human population is also non-beneficial to propagation as there is a considerable amount of poaching of such game birds, and since the Pheasants would occupy territory nearer to the houses than the other species, they are more likely to become victims of these unlawful practices.

CHARADRIIDAE

A.O.U. 273 KILLDEER Oxychus vociferus

Comments of the residents of the Dungarvon - Renous area indicate that Killdeers are recent arrivals to the district.

If this is the case, the birds have not encountered favourable breeding conditions. The few cultivated fields in which they have been found to lay their eggs, are plowed or cultivated frequently, and their eggs broken. Some have been found to nest in boggy pastures where their chances for survival are just slightly better, but the hoofs of cattle and horses still take their toll.

Beaches do not appear to be attractive for breeding. Perhaps the Spotted Sandpipers offer too strong an opposition or competition that the Killdeers are forced elsewhere.

Two adults were seen just below the Dungarvon camp on May 30th. They frequented one of the gravel beaches on Whalen's Island for most of the season.

A breeding pair was found on the gravel land belonging to the Royal Canadian Naval Ammunition Depot at Renous, N.B. When flushed, they went through their decoying performance. The nest was not discovered. The large amounts of Crows and Ravens in the vicinity may have destroyed the eggs or nest at some later date.

On the whole length of the Dungarvon River, only one bird was seen, and that within the lower eight miles of the river.

Two breeding pairs were found in the cow pastures along the sides of the road from the salmon fence to the village of Renous.

SCOLOPACIDAE

A.O.U. 228 WOODCOCK Philohela minor

This spring, because of the great amount of work connected with the salmon investigations, the author was not able to carry out an effective programme to survey Woodcock populations. Only the areas immediately around the salmon fence could be covered.

On May 7th, when some snow was still on the ground, woodcock were starting to arrive, and were calling. The first survey made during the evening of May 9th, yielded six calling males along one mile of path.

The same area was covered on May 12th, and eight birds were heard then.

With the help of the dog, three Woodcock were flushed from a piece of swampy ground, at noon of May 22nd.

The approximate peak of the season appeared to be around the last of May. On May 30th, twenty-one calling birds were counted along one measured mile of road below the camp.

On the same evening, two miles of the Lockstead Road were covered by car, with the author sitting on top of the vehicle. On this section, thirty-four birds were seen or heard.

A pair frequented the dooryard of the camp every evening throughout the season. If the camp was vacant, or apparently so, the birds would land beside the woodpile. If there was someone about, or the light was on, the birds would pass through the yard and land in the woods across the road from the camp.

The hunting of Woodcock, except by one person, is limited to non-residents. The effort needed to hunt and shoot one bird, and the small amount of meat on the bird when it is finally ready for consumption, discourage the local people from hunting them. Thus there is not a high number of Woodcock taken during a hunting season for the amount of bird hunting that is done in the region.

A.O.U. 230 WILSON'S SNIPE Capella delicata

Three individuals of this species were seen throughout the season. They were flushed from a beach, just after sunrise of the morning of June 20th, at Murray Jordan's camps, twenty-five miles up Dungarvon.

A.O.U. 242 LEAST SANDPIPER Pisobia minutilla

There appeared to be a slight increase in the number of this species compared to what they were last year, during which time there was a record of only one along one mile of stream. This year there were six adults along the same piece of stream.

Four adults frequented the marshy ground beside the spring brook opposite Whalen's Island. No young were found in the area, but the grasses and bushes provided such abundant cover that this was to be expected.

Two more adults were seen during July along the beach just above the salmon fence.

The tameness of the birds provided wonderful opportunities for close observation. One could walk up within six feet of the

birds, and stand or sit and watch them.

Compared to the other shore birds in the vicinity, the movements of the Least Sandpipers are very slow, careful and graceful. Except for the occasional faint "peep", the presence of the birds could not be detected by sounds. Even when surprised, they remained silent.

A.O.U. 254 GREATER YELLOW-LEGS Totanus melanoleucus

During May and June, a flock of nine Greater Yellow-Legs were seen and heard about Whalen's Island, and the shores and marshes on the mainland opposite.

Another pair frequented a marshy ground opposite the Island. They were completely separate of the flock of nine, and never mixed with them. Judging by their actions when flushed, these birds apparently nested in the vicinity, but as in the case of the Least Sandpipers, the abundance of cover prevented discovery of the nest or young.

Later on, in August and September, three birds were seen on the beaches about the salmon fence. After Hurricane "Carol" passed, the birds were not seen again, nor were any more in the area. Hurricane "Carol" came on August 31st, but was strongest on September 1st.

A.O.U. 263 SPOTTED SANDPIPER Actitis macularia

This species of shore birds was, by far, the most conspicuous along the non-tidal and upper tidal shores.

Along the forty-eight miles of the Dungarvon River, one hundred and twenty-eight individuals were counted. Sixty of these were downy young just out of the egg.

One downy young banded on June 27th, 1953, on the beach just above the salmon fence, was found dead against the racks of the fence, on July 4th, 1954. Presumably, it had been swimming out just above the fence, was caught against the racks and held there by the water pressure, and was drowned there. The dead bird was found by Mr. E.C. Tucker of the Fisheries Research Board, and who was with the author at the Dungarvon salmon fence.

On Renous River, from the mouth of Dungarvon down two miles to Red Bridge, there were thirty Spotted Sandpipers of which twenty-four were young.

LARIDAE Sub-family LARINAE

A.O.U. 44 GLAUCOUS GULL Larus hyperboreus

During the season of commercial Gaspereau and Shad fishing, many Gulls could be seen around the set nets. On May 24th, at Millerton on the Southwest Miramichi, one Glaucous Gull was seen sitting on the pickets of one such net. It was the only one of this species seen during the season.

A.O.U. 47 GREAT BLACK-BACKED GULL Larus marinus

These gulls were also seen around the Gaspereau nets. On May 24th, five were seen on the pickets of one net. Another two were seen at the mouth of Barnaby River, and thirteen near the Morrissey Bridge at Newcastle.

Once the Gaspereau fishery was finished, and the fish had left the river, neither Glaucous not Great Black-Backed Gulls were seen.

A.O.U. 51 HERRING GULL Larus argentatus

This species of Gull was most predominant of the Gulls and Terns. They were most numerous at two periods during the season.

In the spring, during May and the first week of June, many were seen, both inland and in the tidal waters. On May 9th, a flock of six Herring Gulls were seen flying over the Renous

River at Pineville.

Two days later, another flock of eight Herring Gulls went over the Dungarvon River. On both these days, the weather was overcast and cool with an occasional shower or drizzle.

As in the case of the previous two species of Gulls listed, many Herring Gulls were seen around the commercial nets. From Derby, on the Southwest Miramichi, and Redbank on the Northwest Miramichi, to Newcastle, they were seen around every net. A total of seventy-six were seen on May 24th, from the mouth of Barnaby River (opposite Millerton) to the Morrisey Bridge at Newcastle.

During the summer months, Herring Gulls were rare. Beginning at the middle of August, and going to the end of September, there was a noticeable increase in the population of Herring Gulls.

On August 26th at Nelson, twelve adults and seven immature birds were seen on the water.

Off the British-Canadian Pitwood wharf at Newcastle, on September 1st, sixteen adults and eleven immature birds were seen. On the shore opposite, three adults and nine immature birds were seen flying.

Off the shore at Oak Point, on September 22nd, seven immature birds were counted. Eleven more were flying around the bridge near the mouth of the Bartibog River.

A.O.U. 54 RING-BILLED GULL Larus delawarensis

Only one of these Gulls was seen during the season. An adult was seen at Oak Point on September 22nd, sitting on a rock at the shore line. It was by itself, except for several Sandpipers on the beach nearby.

Sub-family STERNINAE

A.O.U. 70 COMMON TERN Sterna hirundo

From all observations, Terns of any species were found to be rare visitors to the Miramichi. Only two Common Terns were seen at Oak Point, on August 19th. Four other counts made there yielded no Terns.

CUCULIDAE

A.O.U. 388

BLACK-BILLED CUCKOO

Coccyzus erythrophthalmus

There was a decided increase in the numbers of this unique species this year. Along one and a half miles of road above the salmon fence, seven different adults were seen during the season. A nest containing two eggs was discovered in a small Hawthorn tree on July 12th. These hatched about July 18th, and by July 28th, the nest was vacant. When the nest was discovered, the adult flew down and away from the nest, trying to keep the bush between itself and the observer. When it reached the alder bushes, some twenty yards distance, it flew to the upper branches, but keeping itself concealed. The warning "cwuk cwuk" started when the bird thought itself out of sight. This performance was repeated on subsequent trips to the vicinity.

Several more were seen between the camp and the village of Renous.

Mr. Austin Cameron of the National Museum in Ottawa also remarked to the author that he had noticed an increase in the Cuckoos this year, in the Maritimes.

TYTONIDAE

A.O.U. 368 BARRED OWL Strix varia

There is only one record of a Barred Owl for the season. Some children in Quarryville acquired a young bird from the vicinity, in August, and attempted to raise it. They were, however, inexperienced in the care and feeding of owls, and the bird died.

A.O.U. 375 GREAT HORNED OWL Bubo virginianus

Using bird calls as indicators, Great Horned Owls were the predominant members of the family Tytonidae. From two to five frequented the woods near the salmon fence and camp. Further up the road, two more were heard.

Three stomach pekkets were found near the camp. Analysis showed that two contained the bones of the Snowshoe Hare, Lepus americanus. The third was found to contain the bones and hair of smaller rodents.

CAPRIMULGIDAE

A.O.U. 417 WHIP-POOR-WILL Antrostomus vociferus

Whip-Poor-Wills were the less numerous of the Goat-suckers present in the Dungarvon-Renous area. In the immediate vicinity of the salmon fence, six could be heard in the evening and early morning. One of these birds was subjected, on various evenings, to the lights of the fence. The bird continued to call until the lights were put out. On such dates on which occurred heavy freshets warranting all-night work, the lights would be turned on for the whole night. The poor bird was kept busy all the time.

A.O.U. 420 NIGHTHAWK Chordeiles minor

This season, Nighthawks were very plentiful. The first bird to be recorded was on May 24th. From then on, there was a steady increase in numbers. Because of the many cloudy days, the birds were active for longer periods during the day.

One noon, at Whalen's Island, approximately forty Nighthawks were flying around the Island and river. Such large groups were common sights in several places.

CHAETURINAE

A.O.U. 423

CHIMNEY SWIFT

Chaetura pelagica

Chimney Swifts were comparatively numerous this season. In the village of Renous, starting towards the middle of July, a flock of approximately one hundred and fifty flew in consecutive counter-clockwise circles for the two hours before sunset. This was a performance that was carried out every night, except when there were high winds.

In a seldom-used barn above the salmon fence, a nest of Chimney Swifts was found in the midst of sixteen Barn Swallow nests.

Three young birds were banded in Quarryville. They were nearly fully feathered out, but their eyes were closed. Nothing was wrong with their voice though.

TROCHILIDAE

A.O.U. 428 RUBY-THROATED HUMMINGBIRD Archilochus colubris

There was a decided increase in the numbers of these small birds this year.

One pair frequented a patch of alder bushes at one end of the salmon fence. A mile below the fence, one and maybe two could be seen at different times throughout the season.

At Millerton, N.B., a pair frequented the high-tension wires along the main highway through the town.

However, in the Renous Game Refuge, within the budworm spray zone, there was the greatest number recorded. While driving up through on June 18th, eight different individuals were seen along the thirty-five miles of road.

The same road was travelled on July 2nd, and here seven were seen. Further up, at Holmes Lake, three were seen in a large, approximately ten-acre field of Lupins that had been left to grow wild.

ALCEDINIDAE

A.O.U. 390 EASTERN KINGFISHER Megaceryle alcyon

Despite frequent high water to ruin feeding grounds, there was allarge population of Kingfishers on the Miramichi River this season. Last season, on the Dungarvon River, from Turner's Island down the three miles to the mouth of the river, there were two breeding pairs. On the same section of stream this year, there were five pairs with their nests

On June 8th, a survey was made on the Royal Canadian Naval Ammunition Depot. In a small gravel pit on the Depot, there were two holes in the bank, of last year's nesting. On July 28th, a second survey yielded twenty-four nests in the same area. They had been, from all indications of feathers, offal, etc., occupied this season by Kingfishers. A small stream, blocked periodically by beaver dams, and stocked heavily with trout, could support easily such a large colony.

Mr. William Curtis of the Northwest Merganser control group, remarked on the increase of Kingfishers in that area.

However, despite the large breeding population, the latter part of the season saw very few Kingfishers. Very possibly the frequent high water prevented them from catching enough food to keep a high percentage of survival.

PICIDAE

A.O.U. 393 HAIRY WOODPECKER Dryobates villosus

Around the Fisheries camp at the Dungarvon salmon fence, two Hairy Woodpeckers were occasional visitors throughout the season. Further back in the woods from the camp, another individual was seen periodically.

Up in the Pine woods near Turner's Island, another two were seen at various times.

A.O.U. 394 DOWNY WOODPECKER Dryobates pubescens

During the season, only three Downy Woodpeckers were noted. Two frequented the small patch of woods near the salmon fence. The third was seen near the Northwest salmon fence at Curventon, N.B.

A.O.U. 401 AMERICAN THREE-TOED WOODPECKER Picoides tridactylus

Of the six species of Woodpeckers found in the Dungarvon-Renous area, this species is the rarest. Only one was seen during the season, in a patch of Pine woods near Turner's Island.

A.O.U. 402 YELLOW-BELLIED SAPSUCKER Sphyrapicus varius

This species is much cursed by the lumbermen in this area

because of the damage done to marketable woods. However, from all observations, this is unjustified, because the number of birds in the area is so small, that the damage is light.

In the Dungarvon-Renous area, and the many miles of road, path and river covered, only four birds were seen during the season. Damage to trees was rare, and only a small fraction of one percent of the trees showed any of the characteristic horizontal rows of squarish holes. Birch trees seemed to be favoured over the comifers. Only three dead trees were found with the holes.

A.O.U. 405 PILEATED WOODPECKER Geophloeus pileatus

The burnt woods, partially regrown in hardwoods, bordering two miles of the Lockstead road between Pineville and Blackville, appeared to be the favourite habitat for the population of Pileated Woodpeckers in the Dungarvon-Renous area. At various times throughout the season, from one to six birds were seen along this part of the road. Morning proved to be the time of day for best observation.

A.O.U. 412 YELLOW-SHAFTED FLICKER Colaptes auratus

Of the six Woodpeckers found in the area, the Yellow-Shafted Flicker was by far the most numerous. In August and September, large flocks were seen along every route travelled by car, and every path walked.

However, this season, the Flickers were not as numerous as they were in 1952 and 1953. This is perhaps the result of the invasion and rapid increase in Common Starlings, Sturnus vulgaris.

In the immediate vicinity of the salmon fence, three flocks, numbering seven, nine and ten respectively, were noted. Other flocks seen numbered from three to ten in size.

Since there were many heavy rains this year, the populations of ants were reduced. Flickers, being famous for their control of these insects, no doubt suffered to a certain extent from this loss in food.

TYRANNIDAE

A.O.U. 444 EASTERN KINGBIRD Tyrannus tyrannus

During the first half of the season, Kingbirds were relatively scarce. However, in the latter half, there was a surprising increase in numbers.

At one place, a quarter of a mile above the salmon fence, a group of eight was a common sight. A mile below, another flock of six was seen.

Near the mouth of the Renous River, at Quarryville, two adults were invariably seen around a Spruce tree by the side of the road. Later on, six birds were noticed in this area.

Further down the main Southwest Miramichi where there is more cleared and cultivated land, the population of Kingbirds was much thicker than it was in the Dungarvon-Renous area. An actual count was not made here, but the ratio of the two populations was estimated to be approximately 3 : 1.

A.O.U. 456 EASTERN PHOEBE Sayornis phoebe

Although no birds of this species were recorded this season, there have been records in the two previous years. In May 1952, a pair of Eastern Phoebes attempted to nest on a rafter of the porch of the Northwest Fisheries camp. However, traffic in and out of the camp was too heavy, and the birds were discouraged.

A.O.U. 461 WOOD PEWEE Myiochanes virens

The familiar "pee-a-wee" call of this unique little flycatcher was heard several times throughout the season. One pair inhabited the coniferous woods across the road from the camp. It was presumed they raised a family there, although no nest was found.

In a mile of path above the Northwest camp, two birds were seen and heard.

A.O.U. 463 YELLOW-BELLIED FLYCATCHER Empidonax flaviventris

There are two records of this species in the Dungarvon-Renous area. At three o'clock in the morning of June 5th, one flew against the window screen of the camp. It was either attracted there by the light of the camp, or the insects around the window. The author was able to catch the bird and band it.

Another bird, without a leg band, was a resident of the woods beside the camp. This individual provided hours of enjoyment for the author, as the call of the bird was easily imitated, and the Flycatcher would come to investigate. By the end of the season, he was very tame, and was a common sight on the window sill, or the branches nearby.

A.O.U. 465 ACADIAN FLYCATCHER Empidonax virescens

During the evening, the salmon fence provided an excellent

perching place for several small Flycatchers, among which were two Acadians.

A.O.U. 466 ALDER FLYCATCHER Empidonax trailli

Two members of this species were among the evening visitors to the salmon fence. Of the small Flycatchers in the area, these were the most active, and were constantly on the move.

A.O.U. 467 LEAST FLYCATCHER Empidonax minimus

This species was the most numerous of the small Flycatchers in the Dungarvon-Renous area. From Turner's Island, on the Dungarvon, down to Red Bridge on the Renous, a distance of five miles of stream, six pairs were recorded.

HIRUNDINIDAE

A.O.U. 612 CLIFF SWALLOW Petrochelidon albifrons

This species nested on the barns and houses throughout the settlement. Along the lower part of the Renous River, through Grainfield, North Renous and Renous, they outnumbered the Barn Swallows. At Red Bridge, the barns owned by Mr. William Connors and Mr. George Donovan housed the largest colonies in the Dungarvon-Renous area. After the young had left the nests, approximately one hundred and fifty birds lined the high tension wires.

A.O.U. 613 BARN SWALLOW Hirundo erythrogaster

Relatively few Barn Swallows were seen in the Dungarvon-Renous area. One seldom-used barn, situated a mile above the salmon fence housed sixteen nests, in the midst of which was a nest of Chimney Swifts.

Road construction work was being done between Newcastle, N.B. and Boiestown, N.B. on the No. 8 Highway to Fredericton. On July 24th, the author noticed that Barn Swallows were congregated on the newly-laid asphalt on a turn in the road just below Blissfield, N.B., and again on another turn just above. When a vehicle approached, the birds would wait until the last second before flying. Immediately the vehicle passed, the birds would land again on the asphalt. On the return trip that day, five of the birds had been killed, but the remaining ones were still going through the same performance.

Approximately fifty to seventy-five birds were seen at each place.

A.O.U. 614 TREE SWALLOW Irotoprocne bicolor

Tree Swallows were the rarest members of the family Hirundinidae in the Dungarvon-Renous area. Their nesting was limited to hollow fence posts, but like the Fliskers, the Starling is offering a strong competition.

Nine adults frequented the fields around the mouth of the Dungarvon River during Maynard June. At no other place, and at no other time were any birds seen.

A.O.U. 616 BANK SWALLOW Riparia riparia

Two nesting colonies, both in seldom-used gravel pits, were noted in the area.

The June 8th survey of the Naval Ammunition Depot yielded sixteen adults. Later, on July 28th, the upper edge of the sides of the pit were found to contain fifty-one vacant nests.

In mid-August, at Singleton's Pit in North Renous, N.B., a few nests were found, but these were just vacated. Across the river, in a flood-washed bank, a large colony of approximately thirty nests was seen.

Behind the Canadian Legion Hall in Blackville, N.B., an excavation, sixteen by twenty by ten feet had been dug. Bank Swallows started nesting there as soon as they arrived in the vicinity, resulting in a colony of forty or so nests, all of which were occupied.

CORVIDAE

A.O.U. 477 BLUE JAY Cyanocitta cristata

The population of Blue Jays on the Miramichi was very prolific this season. During May, June and most of July, the sight of one of these beautiful birds was a rarity. However, all during the latter half of the season, there was a tremendous increase in numbers. To see a flock of twenty-five birds fly across the road was not at all uncommon.

Between the salmon fence and the village of Renous, thirteen large flocks were noted, numbering from six to twenty-five birds. Back in the woods from the salmon fence, three more flocks, involving approximately thirty-five to forty birds, were invariably seen.

A.O.U. 484 CANADA JAY Perisoreus canadensis

In the immediate vicinity of the salmon fence, only two of these birds were seen. Despite their boldness and their tameness, it was impossible to trap them.

On July 4th, one adult and two immature Canada Jays were seen near Holmes Lake.

In the Miramichi area, the Canada Jay is known by the name of "GORBEY", which is evidently supposed to be a "Reincarnated Lumberjack". This relationship stems from the fact that

both "parties" are capable of consuming great quantities of food.

Also, because of this "reincarnation", superstition has it that hard luck will befall anyone who causes injury to any of these birds. To back up this belief, the local people will relate many incidents which involve persons having ill luck after having wantonly maimed or killed a "Gorbey".

A.O.U. 486 RAVEN Corvus corvax

In the immediate vicinity of the salmon fence, and the mouth of the Dungarvon River, a flock of six Ravens fought a losing battle for supremacy. Crows, Jays, small hawks and Kingbirds kept a close check on their activities.

On June 8th, at the Royal Canadian Naval Ammunition Depot, twelve Ravens were seen at one end of a gravel pit which was used for refuse disposal. Here this species had full sway, and all competitors stood their respectful distance. The twelve birds seen here did not comprise the total Raven population in this area.

From June 18th to June 21st, during the butworm expedition down the Dungarvon, ten birds were seen. One flock of eight birds was driven ahead of the canoe for approximately six miles, at the end of which, they turned and flew back upstream.

A.O.U. 488 AMERICAN CROW Corvus brachyrhynchos

This was the more abundant species of the genus Corvus

in the area. In Dalton's Field, near the Naval Ammunition Depot, could be seen from thirty to forty Crows, every day, during August and September. Once the hay had been cut and gathered in from the field, they would appear. This feature had been noticed at the same time in 1952 and 1953. On what the birds fed, which appeared to be bountiful enough to support this population for this long period, it is not known.

On the Naval Ammunition Depot, the abundance of Ravens seemed to discourage Crows. On June 8th, only three were seen, compared to twelve Ravens. Several persons who worked every day in and about this area, remarked on the surprising supremacy of the Ravens.

PORIDAE

A.O.U. 735 BLACK-CAPPED CHICKADEE Penthestes atricapillus

There were two periods during the season in which Chickadees could be seen. During May every section of woodland had its small flock. Six or seven frequented the trees about the camp at the salmon fence.

During June, July and the first week of August, Chickadees were a rarity. However, after that date, they reappeared in slightly greater numbers. Twelve were seen about the campyard. A short distance up the road, another flock of nine could be heard and seen in the trees.

A.O.U. 740 HUDSONIAN CHICKADEE Penthestes hudsonicus

This species seemed to be slightly less numerous than the Black-Capps. The two species lived in close harmony with each other. One was rarely seen without the other.

Four individuals inhabited the trees about the campyard. Another six were seen with the nine Black Capped Chickadees up the road.

The body size of the Hudsonian Chickadee appeared to be, from observation, slightly larger than that of the Black-Capped. Actual measurements were not taken, however.

SITTIDAE

A.O.U. 727 WHITE-BREASTED NUTHATCH Sitta carolinensis

In the many miles of road, path and river covered on foot this season, only one small flock of five White-Breasted Nuthatch was seen in the Dungarvon-Renous area.

A.O.U. 728 RED-BREASTED NUTHATCH Sitta canadensis

Two individuals of this species frequented a small patch of coniferous woods across the road from the Dungarvon camp.

CERTHIIDAE

A.O.U. 726 BROWN CREEPER Certhia familiaris

The large coniferous trees around the Dungarvon camp attracted and held one Brown Creeper during the latter half of the season.

Along one mile of path above the Northwest Miramichi salmon fence, at Curventon, N.B., two more individuals were seen on September 19th.

TURDIDAE

A.O.U. 758a OLIVE-BACKED THRUSH Hylocichla ustulata

During the season, five members of this species were seen along the lower three miles of the Dungarvon River. Two of these stayed just above the salmon fence.

A.O.U. 759 HERMIT THRUSH Hylocichla guttata

The beautiful song of the Hermit Thrush was a constant companion along every trail, during the spring months. At this time the song of five individuals could be heard from the campyard, every morning and evening.

Many more were heard during the season, but an exact count was not kept.

A.O.U. 761 ROBIN Turdus migratorius

Hardwood and softwood trees did not appear to hold any distinction to the nesting habits of the Robin. Nests were found distributed proportionally in these two habitats.

There was a moderate population of Robins through the area, and they were equally distributed in town and country. Three nests were found in the immediate vicinity of the salmon fence, and one of them right on the fence itself.

There is only one record of an Eastern Bluebird in the Dungarvon-Renous area during the 1954 season. It was seen with a flock of English Sparrows in a barnyard in North Renous, N.B. on September 19th.

There are reports of two or three birds during 1952 and 1953, but there was no official record kept of the time and place of observation.

SYLVIIDAE

A.O.U. 749 RUBY-CROWNED KINGLET *Corthylio calendula*

A few of these small inconspicuous birds were seen in the survey area. Six individuals were watched feeding on Spruce Budworm larvae around the Naval Ammunition Depot at Renous, N.B.

Approximately a dozen were seen on budworm-infested trees around the salmon fence. They seemed to move elsewhere after the moths had emerged from the cysali, laid their eggs and died.

BOMBYCILLIDAE

A.O.U. 619 CEDAR WAXWING *Bombycillia cedrorum*

Cedar Waxwings were one of the greatest predators of the Spruce Budworm moths. Eight of these birds would sit along the salmon fence, when there was no wind, and make sudden flights towards the shore, which was lined with budworm-infested Spruce, Balsam and Hemlock trees. Nine times out of ten they were successful in catching a Budworm moth. One adult was seen to catch forty-six moths in thirty minutes, and feed them to two young which were sitting on the fence.

In the immediate vicinity of the salmon fence, there were five broods, involving twenty-three birds. They took a heavy toll of Budworm moths during the breeding season.

STRUNIDAE

A.O.U. 493 COMMON STARLING Sturnis vulgaris

Starlings are becoming very abundant in the Dungarvon-Renous area, and in the past three seasons, the increase and expansion is almost unbelievable.

In 1952, the nest of a Yellow-Shafted Flicker in a hydro-electric pole, just below the salmon fence, was the outer margin of the Starling population. This year, 1954, they were found seven miles above that point. Fall congregations in 1952, near the mouth of the Dungarvon involved approximately twenty birds. This season, four flocks of approximately fifty individuals each, were seen. The author attempted to reduce the numbers by shooting, but only thirty-one were killed. Thereafter, the birds became very wary of the approach of the Fisheries Research vehicle, or the sight of a person with a dog, which always went on such trips.

Birds which nest in holes in trees or fence posts are fighting a losing battle against the Starling. Flickers, especially are taking the brunt of the attack.

VIREONIDAE

A.O.U. 624 RED-EYED VIREO Vireo olivaceus

Alder swamps appeared to be the favourite habitat for all species of Vireos. In the swamps at the end of the salmon fence, two adults and three immature birds were seen.

Further down, just below the mouth of the Dungarvon, three more Red-Eyed Vireos were seen at various times throughout the season.

Further
A.O.U. 627 WARBLING VIREO Vireo gilvus

Two individuals of this species were heard, and one of them seen, in the alder swamp just above the salmon fence.

A.O.U. 629 BLUE-HEADED VIREO Vireo solitarius

In the alder swamp in which were found the two Warbling Vireos, also supported five Blue-Headed Vireos.

COMPSOTHIYPIDAE (PARULIDAE)

A.O.U. 636 BLACK AND WHITE WARBLER Mniotilta varia

Two of these Creeping Warblers were seen, towards the last of the season, on the evening of September 19th, on the trunk of a large Hemlock tree, beside the Dungarvon camp.

A.O.U. 645 TENNESSEE WARBLER Vermivora peregrina

One member of this species was seen along the side of the road just above the salmon fence, at various times during the latter part of the season.

A.O.U. 646 ORANGE-CROWNED WARBLER Vermivora celata

Two Orange-Crowned Warblers frequented a small patch of coniferous trees, one tenth of a mile above the salmon fence. They were seen feeding on Budworm larvae and moths during July and June.

A.O.U. 650 CAPE MAY WARBLER Dendroica tigrina

Three males and two females were seen during the first half of the season, in a swamp around a beaver pond opposite Whalen's Island.

Another two pairs were seen frequently around the alder swamp at the north end of the salmon fence.

A.O.U. 652 YELLOW WARBLER Dendroica aestiva

Two adults of this species were frequent visitors to the Dungarvon campyard. Absorbant cotton, placed on dead branches, was partially used by those birds for nesting.

Two more were seen on the Naval Ammunition Depot in Renous, N.B., on June 8th.

A few more were seen throughout the area, during the latter part of the season, when the Goldenrod had seeded.

A.O.U. 655 MYRTLE WARBLER Dendroica coronata

This year, Myrtle Warblers were decidedly fewer in numbers than they were in 1953, during which season they played a major role in the predation of Spruce Budworm larvae and moths.

During May and June of 1954, one flock of twenty adults were seen around a spring brook. Elsewhere throughout the area, only the occasional bird was sited. Three frequented the campyard at the salmon fence.

A.O.U. 657 MAGNOLIA WARBLER Dendroica magnolia

This species was slightly more numerous than the previous one, but during 1953, they joined forces with this latter species in the natural control of Spruce Budworm, but their tastes were directed towards the pupae, rather than the moths.

Two adults, with four young, were seen periodically

about the campyard. Further up the road, another family of similar size was recorded.

Elsewhere, a few more were seen around Budworm-infested trees, but the reduction of the great numbers of the prey was limited by the small numbers of the birds.

A.O.U. 660 BAY-BREASTED WARBLER Dendroica castanea

There is a record of a single adult male sighted on May 28th in the alder swamp at the north end of the salmon fence.

A.O.U. 661 BLACKPOLL WARBLER Dendroica striata

At three o'clock in the morning of June 5th, an adult female Blackpoll was heard battering against the window screen of the Dungarvon camp. She was evidently attracted by the light, and was so intent on getting to it, that she was easily caught by hand.

During May and June, five adults were seen around the alder bushes at the mouth of the spring brook opposite Whalen's Island.

A.O.U. 671 PINE WARBLER Dendroica pinus

Several individuals of this species frequented an area of mixed Poplar and coniferous trees on the side of a hill a mile below the salmon fence.

The June 8th survey of the Naval Ammunition Depot yielded two adults actively engaged in feeding on Spruce Budworm larvae.

One immature bird was seen in the vicinity of the salmon fence on August 31st.

A.O.U. 672 PALM WARBLER Dendroica palmarum

Six Palm Warblers frequented the campyard during the latter half of the season. Several more were seen with the Pine Warblers in the Poplar-coniferous habitat below the salmon fence.

A.O.U. 675 NORTHERN WATER THRUSH Seiurus noveboracensis

On July 22nd, an adult Northern Water Thrush was caught by its own curiosity in a large net trap which was set, but not baited, in the campyard. It was banded and released.

Two more were seen during the season, near the south end of the salmon fence, at a small spring which supplied the camp with its water.

A.O.U. 681 MARYLAND YELLOW-THROAT Geothlypis trichas

These birds were common sights in the swamps along the edge of the river, around beaver ponds, or on marshy land. Three families were seen in the immediate vicinity of the salmon fence.

Several other individuals were seen throughout the area especially in the upper end, where there was more marshy land.

A.O.U. 685 WILSON'S WARBLER Wilsonia pusilla

A nest containing four young was found near the Salmon Hole on the Dungarvon River, seven miles from the mouth. It was built into the side of a well-rotted, moss-covered stump. The female was sitting on the nest when the observer approached, and had she not flown, the nest would have remained undiscovered.

A.O.U. 686 CANADA WARBLER Wilsonia canadensis

Two adult Canada Warblers were occasional visitors to the campyard, during the first half of the season.

A.O.U. 687 AMERICAN REDSTART Setophaga ruticilla

A brood of four young with two adults frequented the woods about the campyard during the last of July and most of August. The male was seen once again on September 10th, the day before Hurricane "Edna" came to the Miramichi area.

PHOCEIDAE

A.O.U. 688.2

ENGLISH SPARROW

Passer domesticus

Like the Starling, the English Sparrows are becoming a pest in the Renous area, but their expansion is not as rapid as that of their black counterpart. Red Bridge on the Renous, was the upper limit on the south shore, while on the north shore, they extended up another mile into the settlement of Grainfield. Pineville and the Dungarvon was fortunately free of the birds.

They were found to take over the mud nests of the Cliff Swallows around barns and houses. Whether they destroyed eggs or young to establish their cause, it is not known, but the superior numbers of the Swallows may suggest that this was not the case.

ICTERIDAE

A.O.U. 494 BOBOLINK Dolichonyx oryzivorus

The only Bobolink seen in the area this season was at Red Bridge, where a male frequented appasture owned by Mr. William Connors. The fact that it remained there, and that it, or another male, was seen in the same field during 1953, suggests that there may have been a nest nearby. The female, being comparatively inconspicuously coloured, would not be readilt seen.

A.O.U. 495 COWBIRD Molothrus ater

The Cowbird population was slightly larger that it was in 1953, and much larger than in 1952. Large numbers of White-Throated Sparrows this season, and of Myrtle and Magnolia Warblers last season, may have had a bearing on this increase. No doubt the Cowbirds victimized these smaller birds to their maximum.

A.O.U. 498 RED-WINGED BLACKBIRD Agelaius phoeniceus

One result of the successive closed seasons of Beaver trapping was an increase in beaver dams and ponds. Thus there was an increase in the possible breeding habitats of marsh birds, the most prominent of which is the Redwing. From Turner's Island three miles up Dungarvon, fown five miles to Red Bridge

on the Renous, there were five such breeding areas which supported approximately fifty to sixty pairs of adults.

The stream flowing through the Naval Ammunition Depot was blocked by eight beaver dams, and at the lower end by a large concrete dam to store water for fire protection. The shores of this stream were therefore marshy, and vegetated accordingly. It supported a large population of Redwings, but its exact size could not be estimated because of the inaccessibility of the territory.

A.O.U. 507 BALTIMORE ORIOLE Icterus galbula

On July 31st, near the underpass at Quarryville, a pair of these beautiful birds was seen playing around through the trees.

A.O.U. 509 RUSTY BLACKBIRD Euphagus carolinus

During the first half of the season, there was one point of maximum concentration for the population of these unusual birds. This was along the spring brook which emptied into the Renous River half a mile below Whalen's Island. Here, approximately twenty pairs were seen and heard.

At the salmon fence, two adults frequented the alders at the lower end of the beach.

In the late summer congregations of Blackbirds, the Rusty Blackbirds joined one of the large flocks of Starlings and Bronzed Grackles to form a large flock of one hundred and fifty birds.

A.O.U: 511.9

BRONZED GRACKLE

Quiscalus quiscula

In the Dungarvon/Renous area there were three known nesting colonies of Bronzed Grackles. The nearest one was situated in two very large Pine trees beside the house of Mr. James Tucker, at the mouth of the Dungarvon River. Here, twenty-four occupied nests were counted.

The next colony was just below Red Bridge at Mr Bartt McEvoy's, where thirty nests, with eggs or young at various stages of development, were found in some large White Pine trees and in a patch of small Spruce and Balsam trees. Here two Robin and one Chipping Sparrow nests were found also.

The third colony was situated in the village of Renous in a patch of large conifers beside the C.N.R. Station and tracks.

THRAUPIDAE

A.O.U. 608

SCARLET Tanager

Piranga erythromelas

Mr. Ward Coates, supervisor of the Merganser Control on the Miramichi, and Mr. Raymond Fielding, student assistant to Mr. Coates, reported seeing a male Scarlet Tanager at one point on their travels during August, but the exact time and location of observation was not noted.

Any information given to the author by these two men was always correct, and there is no reason to doubt the validity of this report of observation. Both are fully qualified in bird recognition.

FRINGILLIDAE

A.O.U. 514 EVENING GROSBEAK Herperiphona verpertina

This season, many of the local people remarked to the author on the arrival of a new species of bird into the area. Their description fitted that of the Evening Grosbeak, and the showing of a picture of the bird settled the arguments.

The first to report the bird was Mr. Basil MacKay, the chief guide at Simard's fishing camps at the head of the Dungarvon.

Two Evening Grosbeak were seen frequently during the latter part of the season in the area near the Pineville end of the Lockstead Road.

On July 4th, at Holmes Lake, two others were seen for a few moments.

A.O.U. 515 PINE GROSBEAK Pinicola enucleator

One pair of adult Pine Grosbeaks were noted near Robinson Camp at Holmes Lake, on July 3rd.

A.O.U. 517 PURPLE FINCH Carpodacus purpurea

Within the Dungarvon-Renous area, Purple Finches were common sights around the north side of Red Bridge. A flock of approximately twenty birds was seen around the hill here.

Another flock of nine birds were noted around the salmon fence all during the season.

A.O.U. 521 RED CROSSBILL Loxia curvirostra

On July 4th, at Holmes Lake, three flocks of Red Crossbills, numbering five, six and eight respectively, were seen on the trees near the side of the road.

Further downriver, and in the survey area, none were recorded.

A.O.U. 528 REDPOLLED LINNET Acanthis linaria

In May, three Redpolls were seen at the salmon fence. Further downriver, another five were seen feeding on the seeds of some grasses.

On June 19th, four were seen on the Dungarvon, at McConnell Brook, just below Simard's fishing camps.

A.O.U. 529 AMERICAN GOLDFINCH Spinus tristis

One pair nested in a medium-sized Spruce tree just above the salmon fence. The nest contained three eggs plus one belonging to a Cowbird, but after hatching, the young intruder disappeared.

The seeds of the Goldenrod attracted small numbers into the fields. The dull fall plumage of these birds made them less conspicuous, and the total population was not seen.

A.O.U. 533 PINE SISKIN Spinus pinus

Four members of this species were seen on July 3rd. beside Tuadook Lake, in the Budworm spray zone.

A.O.U. 540 VESPER SPARROW Poocetes gramineus

During the season, two adults were seen frequently around a hay field a mile below the camp.

A.O.U. 542 SAVANNAH SPARROW Passerculus sandwichensis

From the salmon fence down the two miles of road to Red Brdige, eight male Savannah Sparrows were seen and heard. Three more were recorded in the mile above the salmon fence.

A.O.U. 558 WHITE-THROATED SPARROW Zonotrichia albicollis

These birds were be far the most numerous of the Sparrows, and with respect to Budworm predation, they were the most important. They were most prominnet in the natural control of Budworm larvae, pupae and moths. When the prey was in season, and very abundantly so, it was impossible to trap any White-Throated Sparrows. Bread, oatmeal, scratch feed (mixed grains used for feeding chickens) and potatoes used as bait were completely ignored by the birds. This food would either rot, or be eaten by the squirrels and skunks. However, once the Budworm cycle was complete, the birds turned readily to the bait.

Therefore, it may be said that the White-Throated Sparrow population of 1954 took over for the 1953 population of both Myrtle and Magnolia Warblers, in the predation of Spruce Budworm.

Eighty of these birds were caught and banded in the immediate vicinity of the salmon fence. Many more were seen, but they were too cautious to be trapped.

A.O.U. 560 CHIPPING SPARROW Spizella passerina

This species was found to live quite amiably with Song and White-Throated Sparrows and Slate-Coloured Juncos.

During the spring and early summer, twelve formed a small flock which frequented an open field just above the salmon fence. A mile below, on May 12th, sixteen were seen flying past the window of a house.

The June 8th survey of the Naval Ammunition Depot included two individuals of this species.

Seven were seen in a clearing in the woods near the salmon fence on August 31st.

A.O.U. 563 FIELD SPARROW Spizella pusilla

There is a record of one flock of Field Sparrows, containing some thirty birds, which fed periodically in a clearing on either side of the road just below the salmon fence.

A.O.U. 567

SLATE-COLOURED JUNCO

Junco hyemalis

There was a liberal distribution of this species of Junco throughout the area. They appeared to have a preference for fields moderately covered with small conifers, and during July and August, they were constant visitors to the blueberry plains.

Mr. John Tucker, a crippled man who passed the time of day by making ax handles, complained about Juncos bothering him while he worked. The author was with Mr. Tucker when one of these "botherations" happened. One adult female flew up out of one corner of the yard, across the yard, and hit Mr. Tucker in the face. The bird quickly righted herself, and continued over to the other side of the yard where the potato patch was situated. There she resumed her feeding as if nothing had happened. According to Mr. Tucker, this was just one incident in the course of a day, but the usual offender was the Junco.

A.O.U. 581

SONG SPARROW

Melospiza melodia

This species also preferred more the open country, and low-bush vegetation to the heavy woodland.

Two broods were seen in the immediate vicinity of the salmon fence, each with four young. Another nest was discovered near the river's edge opposite Whalen's Island. It also contained four young; which left the nest on June 15th.

Song Sparrows were moderately helpful in the control of Spruce Budworm larvae and moths.

A.O.U. 585

FOX SPARROW

Passerella iliaca

In a potato garden near the Northwest Miramichi salmon fence at Curventon, N.B., six Fox Sparrows were seen. Of these six, four were trapped and banded. They were very friendly with the Song and White-Throated Sparrows which came to feed in the garden.

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