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Apr. 24, 1903

THE ANNUAL REPORT

OF THE

COMMISSIONER OF THE GENERAL LAND OFFICE

FOR THE YEAR 1881

AND THE PROGRESS OF THE LAND OFFICE

IN THE YEAR 1881

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TWENTY-FIRST ANNUAL REPORT.

To his Excellency the Governor, Chairman of the
Board of Agriculture.

In compliance with Section 247, Chapter 21, of the
General Laws of Vermont, I have the honor
to submit herewith the Annual Report
of the Board of Agriculture for
the year ending June
30th, 1901.

C. J. BELL, Secretary.

WYNKOOP HALLENBECK CRAWFORD CO., PRINTERS,
NEW YORK AND ALBANY.
1901.

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INTRODUCTION

A PRELIMINARY LIST

OF THE

BIRDS FOUND IN VERMONT.

BY

GEORGE H. PERKINS, Ph. D.,

Professor of Natural History, University of Vermont.

ASSISTED BY

CLIFTON D. HOWE, M. S.,

Assistant in Biology, University of Vermont.

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INTRODUCTION.

The following list of birds includes all species which have been taken in the State. A very few of the species given are no longer found in Vermont.

A larger number have been found only occasionally, and some may never appear again. The larger part, however, of those listed are usually found within the boundaries of our State, and it is very probable that more extended study of our bird fauna will add a not inconsiderable list to that here given. This is probably most true of the water birds, for it has been difficult to obtain information as to these.

One of the main objects in publishing this list which the authors wish regarded as in no sense final, but only provisional, is that fuller information as to our resident and migratory birds may be gained. On this account additions, corrections and facts concerning our birds are greatly desired. As to the present list all that we or any one can say of it is that it is as complete as it is possible to make it in the present state of our knowledge of the birds of Vermont.

Before anything like a complete and final list can be prepared much field work must be done.

While it is not impossible that errors have crept into the list, the authors have intended to make it as accurate and trustworthy as possible. Very few species have been included which have not been actually seen by the authors or examined by some competent authority. Species which are known in the State only as they have been seen during flight or at rest, but have not been taken, are not included.

Most of the species given in the list are represented in our museums—that of the State at Montpelier, that of the University at Burlington and the Fairbanks Museum at St. Johnsbury. The notes given after each species sufficiently show the authority upon which it is included if it is likely to be considered doubtful.

So far as possible, the assistance of students of ornithology residing in the State has been sought and it has been in all cases most cordially given. We are under especial obligation to the following: Mr. W. E. Balch of Lunenburg, who for years has studied the birds of his vicinity, has furnished a complete list of the species observed by him. Of this he says: "What I have listed I know have been taken in the State and some of the rarest I have shot myself." Miss Mary E. Ide of the Fairbanks Museum

has sent several lists of Vermont birds. One of these includes the birds taken within five miles of St. Johnsbury. Another gives the Vermont birds now in the collection in the museum. Mr. W. P. Conger of Burlington, who has shot and mounted birds for many years, has added much to our knowledge of water birds. Mr. C. H. Ewing of Townshend, has furnished notes upon the birds of Windham county, and Mr. G. H. Ross of Rutland, has done the same for Rutland county. Prof. W. W. Eaton of Middlebury, has added several species found by him in that locality, and also sends a number of species found by Prof. A. D. Mead of Providence, R. I., formerly of Middlebury. Mr. C. H. Horton of St. Johnsbury, has sent a list of the birds of that region. Mr. S. B. Ham of Johnson has added several species. Numerous suggestions and facts have been gained from a series of articles published in the *Burlington Free Press* in 1883, by Prof. F. H. Herrick of Adelbert College, then a resident of Burlington. In the report of the State Board of Agriculture for 1883-84, there is a list of the birds of Vermont by Dr. H. A. Cutting, which has been freely consulted. By far the most valuable catalogue of Vermont birds is that which constitutes chapter III of *Thompson's Vermont*, part first. This was published in 1842 and was supplemented by an appendix published in 1853. This is by no means a mere list, but is really an elementary work on ornithology, illustrated by very good figures of many of the species named.

In many a family in the State this work of Prof. Thompson has been the only natural history available, and often it has received most diligent study. The list of birds given in the "List of Vertebrates," in Prof. H. G. Jesup's *Flora and Fauna of Hanover, N. H.*, has been very helpful. This list appears to have been prepared by Prof. T. W. D. Worthen.

The most recent list of Vermont birds is that of the *Birds of Brattleboro*, compiled by the secretary of the Brattleboro Bird Club, Miss Annie L. Grout, from material furnished by several members of the club.

This list was published in the *Vermont Phoenix* January 4, 1901. It is intended to include the names of all birds which have been identified within the limits of the town of Brattleboro and the sections of the Connecticut river and of Mt. Wantastiquet which lie opposite the town.

From Mr. L. C. Clark, who has a large preserve on the Missisquoi river, and who has hunted and studied, especially the water birds, for a considerable number of years, we have received valuable aid in the preparation of that part of this list which includes those birds in which he is most interested.

To Mr. Clark and Mr. Conger we are indebted for important additions to the list of ducks, and for notes as to the comparative abundance or scarcity of the different species.

Such are the materials, together with the notes of the authors, from which the following catalogue has been compiled. As has been already intimated, it is the hope of the authors that it may in the not too distant future be followed by a more complete list. Now that an ornithological club has been organized in our State, the avowed object of which is the study of the bird life of the State, and the protection of all useful species, it is surely not too much to expect that the next few years will add far more to our knowledge of the feathered inhabitants of this region than has come to us from a much longer period in the past.

The Vermont Ornithological Club is organized not only for the study, but also for the protection of birds. This latter is a more important matter than is always realized. Everyone knows that birds, many of them at least, eat a great number of insects. Everyone knows that there are a great many insects which, if not themselves eaten, are sure to eat a great deal of valuable vegetation. But everyone does not connect these two important facts. Very few, it is to be feared, appreciate how universally it is true that birds are important allies upon which the agriculturist must depend in his constant warfare against his insect foes.

Leaving aside the water birds as on the whole neither helpful nor otherwise, and the larger birds of prey, it may be safely asserted that very few of the birds mentioned in the following list are not to a greater or less extent useful insect destroyers. Some also attack fruit or other vegetation, but even these, of which the common Robin may be taken as a type, do far more good than harm. I have no doubt that during the recent years when the forest caterpillar was devastating our maple and other trees the birds were an important ally in the destruction of these pests. Many birds, as Chickadees, Nuthatches, Chipping Birds, Orioles, Vireos, Cedar Birds and a number of other species, were known to eat the caterpillars. This is but a single example which might be many times duplicated. The more carefully birds are studied, and by this means their real habits more fully and accurately understood, the more useful they are found to be.

Even such generally disliked birds as the Crow are found, as their whole life is known, to do no little good, and while in this case and others like it we may not be ready to assert that the popular impression is wholly erroneous, yet we may say that it is certainly not wholly correct. It is undoubtedly true that if in any locality a considerable portion of the commonly resident birds were destroyed or driven away the ravages of plant-eating insects would be so increased as to be quite unendurable.

The nomenclature used by the American Ornithologists Union has been followed.

The fauna of Vermont is somewhat mixed. The Canadian species come down from the north and mingle with southern forms. Characteristic of the northern fauna are the Crossbills,

Winter Wren, Three-toed Woodpeckers, Pileated Woodpecker, Junco, Kinglets, Hermit Thrush, and others, all of which sometimes nest in the State. That they reach their southern limit is shown by the fact that in most cases they do not nest, but only occasionally. On the other hand the southern forms are represented by the Tanager, Humming Bird, Rose-breasted Grosbeak, Indigo Bunting, Pronotary Warbler, Blue-winged Warbler, and others. Some of the northern species are here only as migrants, as are some of the southern forms, but quite a number of both nest here more or less regularly and it is certain that many species not as yet reported as nesting in the State, will be found to do so when their habits are more fully known.

SUMMARY OF THE FOLLOWING LIST.

Whole number of species recorded, 261. These belong to 14 orders, 41 families, 154 genera. Of the total list, 19 may be classed as permanent residents, 130 as migrants, 107 as summer residents, 14 as winter visitors, 50 as common, 213 uncommon. Of the water birds, divers, ducks, geese, gulls, etc., there are 45; of the waders, herons, plover, etc., 38; the birds of prey number 28; the grouse and pigeons 5; woodpeckers and allied families 15. There are of flycatchers orioles, finches, etc., 56. Of the swallows, vireos, warblers, etc., 52. Of the wrens and thrushes 22.

NOTE.

No attempt has been made in preparing this list to bring the nomenclature to the latest form adopted by the A. O. U. Ornithologists will probably consider this a serious defect, but it should be remembered that the list is issued not for the professional ornithologist. It is primarily designed for popular use, and the names given as being those found in Ridgeway and other accessible manuals have been used for that reason, as later names would inevitably puzzle most of those who will use this list.

LIST OF BIRDS FOUND IN VERMONT.

CLASS AVES. BIRDS.

ORDER PYGOPODES. DIVERS.

FAMILY PODICIPIDÆ. THE GREBES.

GENUS COLYMBUS.

C. holboellii (Rein.). Holboel's Grebe. Summer migrant.

Very rare in this State. The only authentic specimen was obtained at Middlebury by Prof. A. D. Mead.

C. auritus (Linn.). Horned Grebe.

Middlebury, Mead, Alburgh, Conger. Summer migrant. Not common.

GENUS PODILYMBUS.

P. podiceps (Linn.). Pied-billed Grebe.

This species is more common than the preceding, though not abundant. Summer resident.

FAMILY URINATORIDÆ.

GENUS URINATOR.

U. imber (Gunn.). Common Loon. Great Northern Diver.

Found sparingly in the lakes and ponds of the State. Summer resident.

U. lumme (Gunn.). Red-throated Diver.

This species is much less common than the preceding, but specimens are sometimes shot in Lake Champlain. Migrant.

FAMILY ALCIDÆ. THE AUKS.

GENUS URIA. MURRES. GUILLEMOTS.

U. troile (Linn.). Murre.

Very rare. Summer migrant.

U. lomvia (Linn.). Brunnich's Murre.

In 1899 this species was common both about Lake Champlain and inland. One sportsman disgracefully reported that he killed eighty in a single afternoon at Shoreham-in-the-Lake. The specimens taken were very lean, as if half starved. So far as is

known these birds were never found in large numbers before, nor have they appeared since, except now and then one. Ordinarily it is to be classed as a not common summer migrant.

GENUS ALLE.

A. alle (Linn.). Dovkie.

Usually this bird is very rare. In his Catalogue, mentioned in the introduction, Dr. Cutting says: "In 1874, after a severe easterly storm of snow, many were found in New Hampshire and Vermont and killed." A specimen is in the State Cabinet.

FAMILY LARIDÆ. THE GULLS.

GENUS LARUS.

L. glaucus (Brunn.). Glaucus Gull. Burgomaster Gull.

The only record of this species for Vermont is Dr. Cutting's statement that "one was shot on Maidstone meadows by Dr. Dodge." Until other specimens are obtained it must be considered as a doubtful species.

L. argentatus smithsonianus (Coues). American Herring Gull.

This Gull is not uncommon in Lake Champlain and it nests on some of the islands, notably the Four Brothers, opposite Burlington. It is also reported from St. Johnsbury. Summer resident.

L. atricilla (Linn.). Laughing Gull.

Not common. Summer resident.

L. philadelphia (Ord.). Bonaparte's Gull.

This is a less common Gull in Lake Champlain. It breeds on the Four Brothers and probably on other islands in the Lake. Summer resident.

ORDER TUBINARES.

FAMILY PROCELLARIIDÆ. FULMARS.

GENUS OCEANODROMA.

Oceanodroma leucorhoa (Vieill). Stormy Petrel. Leach's Petrel.

Mr. Conger reports a flock of this species in Lake Champlain a few years ago, but I have no knowledge of others.

ORDER STEGANOPODES.

FAMILY PHALACHROCORACIDÆ. CORMORANTS.

GENUS PHALACROCORAX.

P. carbo (Linn.). Common Cormorant.

Not common. A rare visitor.

ORDER **ANSERES.** DUCKS.FAMILY **ANATIDÆ.**GENUS **MERGANSER.**

M. americanus (Cass.). American Merganser. Shel-drake.

Found in the lakes and streams all over the State. Usually a summer resident, but it sometimes remains throughout the year.

M. serrator (Linn.). Red-breasted Merganser.

This species is very rare, but has been taken by several observers.

GENUS **LOPHODYTES.**

L. cucullatus (Linn.). Hooded Merganser.

Rare summer resident.

GENUS **ANAS.**

A. boschas (Linn.). Mallard.

This is one of the less common ducks in and about Lake Champlain. Spring and fall migrant.

A. obscura (Gmel.). Black Duck. Dusky Duck.

This is probably our most abundant species. Summer resident.

A. streptera (Linn.). Gadwall.

Otter Creek. F. H. Knowlton.

A. penelope (Linn.). Widgeon.

Very rarely seen.

A. americana (Gmel.). Baldpate.

Rare migrant.

A. carolinensis (Gmel.). Green-winged Teal.

Summer resident. Rare.

A. discors (Linn.). Blue-winged Teal.

This species is at times not uncommon about Lake Champlain. Summer resident.

GENUS **SPATULA.**

S. clypeata (Linn.). Shoveller.

Occurs occasionally in Lake Champlain. Migrant.

GENUS **DAFILA.**

D. acuta (Linn.). Pintail.

Not common, but now and then a specimen is shot.

GENUS AIX.

A. sponsa (Linn.). Wood Duck. Summer Duck.

Not an uncommon species. It is a permanent resident and is, as Thompson well remarks, one of the most beautiful birds found in the State. It is also one of the very few water birds that nest in trees.

GENUS AYTHYA.

A. americana (Eyt.). Redhead.

Found in Lake Champlain, sometimes it is not uncommon.

A. vallisneria (Wils.). Canvasback.

Sometimes taken in the northern part of Lake Champlain, but it is very rare.

A. marila nearctica (Stein). American Scaup Duck.
Blue bill.

Not uncommon in Lake Champlain.

A. affinis (Eyt.). Lesser Scaup Duck. Little Blackhead.

Otter Creek, F. H. Knowlton. Lake Champlain, Conger.

GENUS GLAUCIONETTA.

G. clangula americana (Bon.). Goldeneye.

Common in Lake Champlain, also Connecticut river.

G. islandica (Gmel.). Barrows Goldeneye.

There is a single specimen of this duck in the Fairbanks Museum which was found in Vermont.

GENUS CHARITONETTA.

C. albeola (Linn.). Bufflehead. Butter-ball. Dipper.

Not common, but now and then a specimen is shot in Lake Champlain, or near it. It appears only in winter or at least late fall. Formerly much more abundant.

GENUS CLANGULA.

Clangula hyemalis (Linn.). Old Squaw.

Lake Champlain. Not common. Conger.

GENUS OIDEZIA.

O. americana (S. & R.). American Scoter.

Mr. Horton reports this duck from St. Johnsbury.

O. perspicillata (Linn.). Surf Scoter.

This has been found in the Connecticut river at Bradford.

O. deglandi (Bon.). Whitewinged Scoter.

Otter Creek, Middlebury. Mead.

GENUS ERISMATURA.

E. rubida (Wils.). Ruddy Duck.

This duck is usually only a migrant, but it is reported as found with young in Lake Memphramagog.

GENUS NOMONYX.

N. dominicus. Masked Duck. San Domingo Duck.

This species is not one which would be expected in this region. We have not seen a specimen, but both Coues and Ridgway report it as found in Lake Champlain. Accidental in the United States. The only known instances are Lake Champlain and Lake Koshkonong, Wis.

GENUS CHEN.

C. hyperborea (Pall.). Lesser Snow Goose.

This is a rare bird in this region. It is, however, met with occasionally. It has been taken both in Lake Champlain and in the Connecticut river.

GENUS ANSER.

Anser albifrons, gambelli (Hartt.). American White-fronted Goose.

Sometimes this bird appears in considerable flocks in Lake Champlain, but usually not common.

GENUS BRANTA.

B. canadensis (Linn.). Common Wild Goose. Canada Goose.

A very common spring and fall migrant.

B. bernicla (Linn.). Brant.

A rare visitant. Conger.

Olor columbianus (Ord.). Whistling Swan.

This bird is very uncommon. Mr. Conger, however, reports the coming of a flock one evening to the Lake near Alburg where they remained through the night.

ORDER HERODIONES.

FAMILY PLATALEIDÆ. SPOONBILLS, IBISES.

GENUS TANTALUS.

T. loculator (Linn.). Wood Ibis.

This bird appears to have a very wide range over the United States, but has not been reported from New England. A pair lived for several weeks a few miles east of Burlington and one of them was shot and is now in the collection of the University.

FAMILY ARDEIDÆ. HERONS, BITTERN.

GENUS BOTAURUS.

B. lentiginosus (Mont.). American Bittern.

Not uncommon in meadow and swampy land, where it nests. Summer resident.

B. exilis (Gmel.). Least Bittern.

Formerly not uncommon in several parts of the State, but it is now quite rare.

Prof. Jesup reports it as "Not rare summer resident" in New Hampshire.

GENUS ARDEA.

A. herodias (Linn.). Great Blue Heron.

This is not an uncommon bird in the wilder parts of the State, especially in the vicinity of Lake Champlain. It is a summer resident and breeds here.

A. virescens (Linn.). Green Heron.

This is our most common heron and it nests in many parts of the State.

GENUS NYCTICORAX.

N. nycticorax naevius (Bodd.). Night Heron.

This species is reported by some observers as rare, by others as common. It probably is not usually very abundant anywhere in the State. Summer resident.

ORDER PALUDICOLÆ. CRANES, RAILS.

FAMILY GRUIDÆ.

GENUS GRUS.

G. americanus. Whooping Crane.

This bird appears to be extinct in this State. Thompson reports it as "Being occasionally seen during its migration." Dr. Cutting says "Scarce, more so than formerly." It is many years since a specimen has been taken in Vermont.

G. mexicana (Mull.). Sandhill Crane.

There is a specimen of this bird in the State Museum which was shot on the Connecticut at Lunenburg. It is the only Vermont specimen of which we have any knowledge. As the species is usually found only in the southern United States the above specimen must be considered merely an estray.

FAMILY RALLIDÆ. RAILS.
GENUS RALLUS.

R. longirostris crepitans (Gmel.). Clapper Rail. Rare. Burlington, Conger.

R. virginianus (Linn.). Virginia Rail.
Not uncommon summer resident.

GENUS PORZANA.

P. carolina (Linn.). Carolina Rail.
An uncommon summer resident.

P. noveboracensis (Gmel.). Yellow Rail.

"Specimen shot at Newport. Never saw any other here, yet said to be seen now and then."—Cutting. Rarely seen in Northern Vermont.—Conger.

GENUS GALLINULA.

G. galeata (Licht.). Florida Gallinule.
Reported as a rare summer resident.

GENUS FULICA.

F. americana (Gmel.). Coot.

Not common, but specimens occur now and then near Burlington as migrants.

ORDER LIMICOLÆ. SHORE BIRDS.

FAMILY PHALAROPODIDÆ. PHALAROPES.

GENUS CRYMOPHILUS.

C. fulicarius (Linn.). Red Phalarope.

Mr. Conger shot one specimen of this species at Alburgh. This is now in the State collection. Mr. L. C. Clark reports that he has seen quite a number this season, 1901, but never in the Lake before.

FAMILY SCOLOPACIDÆ. WOODCOCK. SNIPE. SANDPIPERS.

GENUS PHILOHELA.

P. minor (Gmel.). American Woodcock.

This bird is a not uncommon migrant and often it remains here through the summer. It appears about the middle of

April, 10th-15th. Because of its nocturnal habits it is usually considered much less common than it really is.

GENUS GALLINAGO.

G. delicata (Ord.). Wilson's Snipe.

Not common. Summer resident.

GENUS TRINGA.

T. maritima (Brun.). Purple Sandpiper.

A rare summer visitant. Dr. Cutting says that it "Occasionally breeds in Vermont, as I had the old bird and young brought me."

T. maculata (Vieill.). Pectoral Sandpiper. Jack Snipe.

A rare fall migrant.

T. fuscicollis (Vieill.). Whiterumped Sandpiper.

The only authority for this species is Miss Grout's list of Brattleboro birds.

T. minutilla (Vieill.). Least Sandpiper.

Seen rarely in migration.

GENUS EREUNETES.

E. pusillus (Linn.). Semipalmated Sandpiper.

Not common. Migrant.

GENUS CALIDRIS.

C. arenaria (Linn.). Sanderling.

Occasionally found near lakes and ponds. Rare summer visitant.

GENUS LIMOSA.

L. hæmastica (Linn.). Hudsonian Godwit.

Not common. Burlington.

GENUS TOTANUS.

T. melanoleucus (Gmel.). Greater Yellowlegs.

Spring and fall migrant. Found about ponds in various localities.

T. flavipes (Gmel.). Yellowlegs.

Not uncommon. Conger.

T. solitarius (Wils.). Solitary Sandpiper.

Spring and fall migrant. Not uncommon. Sometimes breeds.

GENUS SYMPHEMIA.

S. semipalmata (Gmel.). Willet.

Middlebury, Mead.

GENUS BARTRAMIA.

B. longicauda (Bech.). Bartram's Sandpiper.

Usually a not common spring and fall migrant. It sometimes remains through the summer, however, as Mr. Evans writes "A pair nested in Townshend for several years."

GENUS TRYNGITES.

T. subruficollis (Vieill.). Buffbreasted Sandpiper.

Spring and fall migrant. Not common.

GENUS ACTITIS.

A. macularia (Linn.). Spotted Sandpiper.

Very common on the shores of Lake Champlain and elsewhere. Summer resident.

FAMILY CHARADRIIDAE. PLOVERS.

GENUS CHARADRIUS.

C. squatarola (Linn.). Blackbellied Plover.

Lunenburg, Balch. Middlebury, Mead. Migrant.

C. dominicus (Mull.). American Golden Plover.

Lunenburg, Balch. Both this and the preceding species are given in Dr. Cutting's list. They are only seen on rare occasions.

GENUS ÆGIALITIS.

Æ. vocifera (Linn.). Killdeer.

Fall and spring migrant. It is also reported as sometimes nesting here.

Æ. dubia (Scop.). Little Ring Plover.

Very rare. Conger.

Æ. meloda (Ord.). Piping Plover.

Not common. Migrant. "Occasionally breeds," Ross.

Æ. semipalmata (Bon.). Semipalmated Plover.

"Have seen it about Groton Pond in considerable numbers, but nowhere else." Cutting.

Æ. wilsonia (Ord.). Wilson's Plover.

Lunenburg, Balch:

FAMILY APHRIZIDÆ. TURNSTONES.

GENUS ARENARIA.

A. interpres (Linn.). Turnstone.

Three of these birds were shot on Hogback, an island in Lake Champlain, Conger.

ORDER GALLINÆ. GROUSE.

FAMILY TETRAONIDÆ.

GENUS COLINUS.

C. virginianus (Linn.). Quail. Bob White.

This bird is sometimes seen about Burlington and elsewhere, but it is most probable that none are really native. The quail has been several times introduced into Vermont with the expectation that it would increase and become a valuable game bird as it is in some parts of the country. This hope has not, however, been realized and the birds do not thrive. It may be that some native quails are to be found in the State, but we think that all are those introduced, and that the species may disappear from our limits at any time.

GENUS DENDRAGAPUS.

D. canadensis (Linn.). Canada Grouse. Spruce Partridge.

This is not a common species, even in the northern parts of the State. It is probably only a visitor as a rule, but it breeds within our limits.

GENUS BONASSA.

B. umbellus (Linn.). Common Partridge. Ruffed Grouse.

Common over the State. Remains throughout the year.

The Wild Turkey, *Meleagris gallopavo* (Linn.), it is scarcely necessary to say, is not found in Vermont. It was, however, formerly not uncommon. The Green Mountain boys were often able to supply their somewhat meagre larders with this delicacy. Prof. Thompson, writing in 1842, says: "The Wild Turkey, which was formerly common, has everywhere diminished. A few of them, however, continue still to visit and breed upon the mountains in the southern part of the State." Just when this bird became extinct has not been determined.

The *Capercailli*, *Tetraogallus capercailli*, has been introduced as a possible game bird, but the experiment did not prove successful.

As to this species Mr. Titcomb, Fish and Game Commissioner, writes: "The *Capercaillie* were introduced into Vermont four years ago, if I remember correctly, and the Black Game at the same time. Dr. Webb put most of them out on his farms, but

a cock and two females were put out in the woods in Middlebury and the same number in Rutland. I think that there were also some put out in Franklin county. The Sharptailed Grouse was also introduced about the same time." None of the above have been heard from since they were put out.

Several years ago Dr. W. S. Webb stocked a preserve in Shelburne with the common Pheasant, *Phasianus colchicus*. These have done well, and escaped individuals are seen, it may be, several miles from home. Whether it will ever become a resident properly so called can scarcely be predicted.

ORDER **COLUMBÆ.** PIGEONS. DOVES.
FAMILY **COLUMBIDÆ.**
GENUS **ECTOPISTES.**

E. migratorius (Linn.). Wild Pigeon.

This species, formerly perhaps the most abundant of our native birds, is now one of the rarer ones. There are a few seen every season near Essex Junction about Fort Ethan Allen, and a number were shot there last season. They once nested on Stratton mountain in great numbers, and a few are said to remain there. Thompson says: "Pigeons are much less abundant in Vermont than formerly, but they now, in some years, appear in large numbers." Earlier still Dr. Williams speaks of the trees over hundreds of acres as being fairly loaded with nests.

GENUS **ZENAIIDURA.**

Z. macroura (Linn.). Mourning Dove.

This bird does not appear to have ever been very common in Vermont, and it is now very rare.

ORDER **RAPTORES.** BIRDS OF PREY.
FAMILY **CATHARTIDÆ.** VULTURES.
GENUS **CATHARTES.**

C. atrata (Barth). Black Vulture.

Mr. Balch reports this unexpected species from Lunenburg. Miss Ide also gives it as found in the neighborhood of St. Johnsbury.

C. aura (Linn.). Turkey Vulture. Turkey Buzzard.

Dr. Cutting says that he has known of the capture of one specimen. Mr. Balch also reports it. Both this and the preceding species are exceedingly rare in the State.

FAMILY **FALCONIDÆ.** EAGLES. HAWKS.
GENUS **CIRCUS.**

C. hudsonius (Linn.). Marsh Hawk.

This hawk is most common in the spring and early summer.

GENUS ACCIPITER.

A. velox (Wils.). Sharpshinned Hawk.

Fairly common summer resident. Breeds.

A. cooperi (Bon.). Coopers Hawk.

Summer resident. Often called chicken hawk. More common than many of its allies.

A. atricapillus (Wils.). American Goshawk.

This large hawk is not at all common, but is occasionally seen in winter. More rarely still it may be found in summer and it is reported in a very few instances to have nested.

GENUS BUTEO.

B. borealis (Gmel.). Redtailed Hawk. Hen Hawk.

This hawk is a permanent resident and one of the more common species.

B. lineatus (Gmel.). Redshouldered Hawk.

This is also a common species. Resident.

B. swainsonii (Bon.). Swainson's Hawk.

This is a very rare species in this State. Lunenburg, Balch.

B. latissimus (Wils.). Broadwinged Hawk.

Not common. Summer resident.

GENUS ARCHIBUTEO.

A. lagopus sancti-johannis (Gmel.). American Rough-legged Hawk.

Not common. St. Johnsbury, Balch.

GENUS AQUILA.

A. chrysaetos (Linn.). Golden Eagle.

This species is never common and sometimes none are seen for many years, then a few appear. The young of the next species are often mistaken for the adult of this.

GENUS HALIÆTUS.

H. leucocephalus (Linn.). Whiteheaded Eagle. Bald Eagle.

This is not uncommon, especially in the vicinity of Lake Champlain. It is a permanent resident.

GENUS FALCO.

F. peregrinus anatum (Bon.). Duck Hawk.

Not common. Resident and often breeds for a long time in the same locality.

F. columbarius (Linn.). Pigeon Hawk.

Sometimes, though rarely, resident. More commonly spring and fall migrant.

F. sparverius (Linn.). Sparrow Hawk.

Common summer resident.

GENUS PANDION.

P. haliaetus carolinensis (Gmel.). Fish Hawk. Osprey.

Not common resident throughout the year.

FAMILY STRIGIDÆ. OWLS.

GENUS STRIX.

S. pratinicola (Bon.). American Barn Owl.

This species appears to be confined to the northern part of the State. It is probably only a visitor.

GENUS ASIO.

A. wilsonianus (Less.). Longeared Owl.

Not uncommon. Resident.

A. accipitrinus (Pall.). Shorteared Owl.

Not very rare. Resident.

GENUS SYNRNIUM.

S. nebulosum (Forst.). Barred Owl.

A rather common resident.

GENUS ULULA.

U. cinerea (Gmel.). Great Gray Owl.

This owl is very rare in Vermont and seen only in winter.

GENUS NYCTALA.

N. tengmalmi richardsonii (Bon.). Richardson's Owl.

A rare winter visitor.

N. acadica (Gmel.). Saw Whet Owl.

This little owl is at times quite common, especially in the northern part of the State.

GENUS MEGASCOPS.

M. asio (Linn.). Screech Owl.

Perhaps our most common owl. Resident.

GENUS BUBO.

B. virginianus (Gmel.). Great Horned Owl. Cat Owl.

Quite common. Resident.

GENUS NYCTEA.

N. nyctea (Linn.). Snowy Owl. White Owl.

Usually a rare winter visitor, but sometimes it appears in considerable numbers in Northern Vermont.

GENUS SURNIA.

S. ulula capparoch (Mull.). Hawk Owl.

A not common resident in the northern part of the State.

ORDER COCCYGES.

FAMILY CUCULIDÆ. CUCKOOS.

GENUS COCCYZUS.

C. americanus (Linn.). Yellowbilled Cuckoo.

Summer resident.

C. erythrophthalmus (Wils.). Blackbilled Cuckoo.

Summer resident. Both species of cuckoo are found in the State, but the first named is very uncommon. The last named is the species ordinarily seen, but neither are very abundant.

FAMILY ALCEDINIDÆ. KINGFISHERS.

GENUS CERYLE.

C. alcyon (Linn.). Kingfisher.

Common summer resident. Appears the last of April.

ORDER PICI.

FAMILY PICIDÆ. WOODPECKERS.

GENUS DRYOBATES.

D. villosus (Linn.). Hairy Woodpecker.

Winter visitor, also not uncommon resident.

D. pubescens (Linn.). Downy Woodpecker.

Much more common than the last. Resident.

GENUS *PICOIDES*.

P. arcticus (Swain). Arctic Three-toed Woodpecker.

This is always rare and usually a winter visitor, but Mr. Ross has found it nesting in Sherburne. The nest has also been found near Burlington.

P. americanus (Brehm). Striped Woodpecker. Three-toed Woodpecker.

Like the preceding species, this is very seldom seen, but both occur mostly in the northern part of the State.

GENUS *SPHYRAPICUS*.

S. varius (Linn.). Yellow-bellied Woodpecker. Sapsucker.

A common summer resident.

GENUS *CEOPHLÆUS*.

C. pileatus (Linn.). Pileated Woodpecker.

This, largest of our Woodpeckers, occurs sparingly all over the State.

GENUS *MELANERPES*.

M. erythrocephalus (Linn.). Redheaded Woodpecker.

Not common in Vermont. Summer resident.

GENUS *COLAPTES*.

C. auratus (Linn.). Yellow Hammer. Flicker.

This is our most common Woodpecker. Appears the middle of April.

ORDER *MACROCHIRES*.FAMILY *CAPRIMULGIDÆ*.GENUS *ANTROSTOMUS*.

A. vociferus (Wils.). Whip-poor-will.

Quite irregularly distributed, being common in some localities and rare in others. Usually more frequently found away from the mountains on lowlands. Summer resident.

GENUS *CHORDEILES*.

C. virginianus (Gmel.). Night Hawk.

Very common. Summer resident.

FAMILY MICROPODIDÆ. THE SWIFTS.

GENUS CHÆTURA.

C. pelagica (Linn.). Chimney Swift.

Common summer resident.

FAMILY TROCHILIDÆ. HUMMING BIRDS.

GENUS TROCHILUS.

T. colubris (Linn.). Rubythroated Hummingbird.

A common summer resident. Appears about the middle of May.

ORDER PASSERES. PERCHING BIRDS.

FAMILY TYRANNIDÆ. FLYCATCHERS.

GENUS TYRANNUS.

T. tyrannus (Linn.). Kingbird.

Common summer resident. Appears about the first week in May.

GENUS MYRIARCHUS.

M. crinitus (Linn.). Great crested Flycatcher.

Common summer resident. Appears the first week in May.

GENUS SAYORNIS.

S. phœbe (Lath.). Phœbe.

Not rare summer resident. Appears about April 10th.

GENUS CONTOPUS.

C. borealis (Swain). Olivesided Flycatcher.

Common summer resident.

C. virens (Linn.). Wood Pewee.

Common summer resident. Appears towards the last of May.

GENUS EMPIDONAX.

E. flaviventris (Baird). Yellowbellied Flycatcher.

A rare summer resident. It is said to nest in the northern part of the State.

E. acadicus (Gmel.). Acadian Flycatcher.

This is a doubtful species. The only authority for its occurrence in the State is Dr. Cutting's statement that "It is rarely seen in Vermont."

E. pusillus traillii (Aud.). Traills Flycatcher.

This flycatcher is rare, but it is known to occur at St. Johnsbury, Ide, Balch. Dr. Cutting says that it has been "Taken at Bennington, Bethel, and in Connecticut river valley." Summer resident. A nest has also been found in Burlington.

E. minimus (Baird). Least Flycatcher.

Common summer resident.

FAMILY ALAUDIDÆ. LARKS.
GENUS OTOCORIS.

O. alpestris (Linn.). Horned Lark.

Rather common. Often migrant, but some remain through the summer. A nest of the Horned Lark was found this spring, 1901, near the Experiment buildings in Burlington. In it were three young—a week old—and yet it was on the 25th of April.

O. alpestris praticola (Hensh.). Prairie Horned Lark.

Prof. Eaton reports this species from Middlebury.

FAMILY CORVIDÆ. JAYS. CROWS.
GENUS CYANOCITTA.

C. cristata (Linn.). Blue Jay.

Common resident.

GENUS PERISOREUS.

P. canadensis (Linn.). Canada Jay.

Not common except in the northern part of the State where it sometimes breeds.

GENUS CORVUS.

C. corax sinuatus (Wagl.). American Raven.

This bird is found only in the extreme northern part of the State. It is very rare, but several specimens have been killed.

C. americanus (Aud.). Common Crow.

A very common resident.

C. ossifragus (Wils.). Fish Crow.

Mr. Balch reports this from Caledonia county.

FAMILY ICTERIDÆ. BLACKBIRDS. ORIOLES.
GENUS DOLICHONYX.

D. oryzivorus (Linn.). Bobolink. Reed Bird. Rice Bird.

Very common summer resident. Appears the last of May.

GENUS *MOLOTHRUS*.

M. ater (Bodd.). Cowbird.

Common summer resident. Appears the last of March.

GENUS *AGELAIUS*.

A. phæniceus (Linn.). Redwinged Blackbird.

Very common summer resident. Appears about the middle of April.

GENUS *STURNELLA*.

S. magna (Linn.). Meadowlark.

Not uncommon in some parts of the State. Summer resident.

GENUS *ICTERUS*.

I. spurius (Linn.). Orchard Oriole.

Summer resident. This is not a common bird anywhere in the State so far as we know.

I. galbula (Linn.). Baltimore Oriole.

Common summer resident. Appears early in May.

GENUS *SCOLECOPHAGUS*.

S. carolinus (Mull.). Rusty Blackbird.

Not very common. Spring and fall migrant. Appears about the middle of April.

GENUS *QUISCALUS*.

Q. quiscula (Linn.). Purple Grackle.

The common Blackbird is usually assigned to this species, but I am inclined to think that it is not as common in most parts of Vermont as the Bronze Grackle. This is certainly true of the vicinity of Burlington. Summer resident.

Q. quiscula æneus (Ridg.). Bronze Grackle.

As we have noticed above, this species is usually confused with the preceding with which it often associates. It is the more northern form, and, while both species are not uncommon in the State, this is most so.

GENUS *PINICOLA*.

P. enucleator (Linn.). Pine Grosbeak.

A somewhat irregular winter visitant. Some winters, as that of 1899, the bird is very common, while at other times it is very rare or does not appear at all.

GENUS CARPODACUS.

C. purpureus (Gmel.). Purple Finch.

Very common summer resident.

GENUS LOXIA.

L. curvirostra minor (Brehm). American Crossbill.

Usually regarded as a winter visitor, but it has been seen in Burlington in July, and it probably breeds here. It has also been seen in summer in other parts of the State.

L. leucoptera (Gmel.). Whitewinged Crossbill.

Winter visitant. It sometimes nests, as young have been found. Prof. Herrick reports finding young at Lunenburg, March 22.

GENUS ACANTHIS.

A. linaria (Linn.). Redpoll.

Irregularly common. Winter visitor.

A. hornemanni exilipes (Coues). Hoary or Mealy Redpoll.

This bird is reported as having been found in the State. It is very rare and it may be regarded as a doubtful species.

GENUS SPINUS.

S. tristis (Linn.). Goldfinch. Yellowbird.

A common summer resident.

S. pinus (Wils.). Pine Siskin.

An occasional winter visitant.

GENUS PLECTROPHENAX.

P. nivalis (Linn.). Snowflake. Snowbird.

Irregular winter visitant.

GENUS CALCARIUS.

C. lapponicus (Linn.). Lapland Longspur.

A rare winter visitant.

GENUS POOCÆTES.

P. gramineus (Gmel.). Vesper sparrow.

Common summer resident. Comes about the middle of April.

GENUS AMMODRAMUS.

A. sandvichenisis savanna (Wils.). Savanna Sparrow.
Not common. Summer resident.

A. savannarum passerinus (Wils.). Grasshopper Sparrow.
Summer resident. Not common.

A. henslowii (Aud.). Henslow's Sparrow.
Rare summer resident.

A. caudacutus (Gmel.). Sharptailed Sparrow.
Lunenburg, Balch.

GENUS ZONOTRICHIA.

Z. leucophrys (Forst.). Whitecrowned Sparrow.
Spring and fall migrant. Common.

Z. albicollis (Gmel.). Whitethroated Sparrow. Pea-body Bird.
Rather common. Spring and fall migrant. Appears early in May.

GENUS SPIZELLA.

S. monticola (Gmel.). Tree Sparrow.
Occasionally resident. Probably more often a winter visitor.

S. socialis (Wils.). Chipping Sparrow.
Very common. Summer resident. Comes about the middle of April.

S. pusilla (Wils.). Field Sparrow.
Quite common. Summer resident.

GENUS JUNCO.

J. hyemalis (Linn.). Black Snowbird. Junco.
Common resident, also migrant.

GENUS MELOSPIZA.

M. fasciata (Gmel.). Song Sparrow.
Very common summer resident. Appears April 1st.

M. lincolni (Aud.). Lincoln's Sparrow.
Not common. Summer resident.

M. georgiana (Lath.). Swamp Sparrow.
Summer resident. Occasional. Rare.

GENUS PASSERELLA.

P. iliaca (Merr.). Fox Sparrow.

Spring and fall migrant.

GENUS PASSER.

P. domesticus (Linn.). English Sparrow. House Sparrow.

By far too common. Introduced.

GENUS PIPILIO.

P. erythrophthalmus (Linn.). Towhee. Chewink.

Not uncommon summer resident. Appears about the last week in May.

GENUS CARDINALIS.

C. cardinalis (Linn.). Cardinal.

This is a southern species and it is rather doubtful whether it ever voluntarily comes so far north. Several specimens have been taken in the State, but they may all have escaped from cages.

GENUS HABIA.

H. ludoviciana (Linn.). Rosebreasted Grosbeak.

Common summer resident. Comes the first of May. This is one of the very few birds that will eat potato bugs.

GENUS GUIRACA.

G. caerulea (Linn.). Blue Grosbeak.

A rare bird, yet occasionally seen here.—Dr. Cutting. Doubtful.

GENUS PASSERINA.

P. cyanea (Linn.). Indigo Bunting.

Not rare summer resident. Appears towards the last of May

FAMILY TANAGRIDÆ.

GENUS PIRANGA.

P. erythromelas (Vieill.). Scarlet Tanager.

Not very common summer resident. Comes the last of May.

P. rubra (Linn.). Summer Tanager.

Not common summer resident.

FAMILY HIRUDINIDÆ. SWALLOWS.
GENUS PROGNE.

P. subis (Linn.). Purple Martin.

Formerly common, but during the last few years it has become comparatively rare. Comes about the middle of May.

GENUS PETROCHELIDON.

P. lunifrons (Say). Cliff Swallow.

Common summer resident. Arrives the last of April.

GENUS CHELIDON.

C. erythrogaster (Bodd.). Barn Swallow.

Common summer resident. Comes the middle of April.

GENUS TACHY CINETA.

T. bicolor (Vieill). Tree Swallow.

Summer resident. Comes about the middle of April.

GENUS CLIVICOLA.

C. riparia (Linn.). Bank Swallow.

Common summer resident.

GENUS STELGIDOPTERYX.

S. serripennis (Aud.). Roughwinged Swallow.

Lunenburg, Balch.

FAMILY AMPELIDÆ. WAXWINGS.
GENUS AMPELIS.

A. cedrorum (Vieill). Waxwing. Cedar Bird.

Quite common. Last of May.

A. garrulus (Linn.). Bohemian Waxwing.

Not usually seen, but sometimes, especially in early spring or late fall flocks appear for a few days.

FAMILY LANIIDÆ. SHRIKES.
GENUS LANIUS.

L. borealis (Vieill). Northern Shrike.

Ordinarily a not very common winter visitor, but sometimes it remains through the summer and nests.

L. ludovicianus (Linn.). Loggerhead Shrike.

Rarely, though sometimes, seen in the State.

L. ludovicianus excubitorides (Swain). Whiterumped Shrike.

"A rare visitant."—Cutting.

FAMILY VIREONIDÆ. VIREOS.

GENUS VIREO.

V. olivaceus (Linn.). Redeyed Vireo.

Common summer resident. Appears the last of May.

V. philadelphicus (Cass). Philadelphia Vireo.

Not common summer resident.

V. gilvus (Vieill). Warbling Vireo.

A fairly common summer resident. Comes the second week in May.

V. flavifrons (Vieill). Yellowthroated Vireo.

Rather common summer resident. Appears the first week in May.

V. solitarius (Wils.). Blueheaded Vireo.

Rare summer resident. Probably breeds.

V. noveboracensis (Gmel.). Whiteeyed Vireo.

A rare summer resident.

FAMILY MNIOTILTIDÆ. WOOD WARBLERS.

GENUS MNIOTILTA.

M. varia (Linn.). Black and White Warbler.

Not uncommon summer resident. Appears the middle of May.

GENUS PROTOSOTARIA.

P. citrea (Bodd.). Prothonotary Warbler.

Rare summer visitor. Probably confined to the southern part of the State.

GENUS HELMITHERUS.

H. vermivorus (Gmel.). Wormeating Warbler.

Rare summer resident.

GENUS HELMINTHOPHILA.

H. pinus (Linn.). Bluewinged Warbler.

Rare visitant. St. Johnsbury, Miss Ide. Lunenburg, Balch.

H. chrysoptera (Linn.). Goldenwinged Warbler.
Rare summer resident.

H. ruficapilla (Wils.). Nashville Warbler.
Rare summer resident.

H. peregrina (Wils.). Tennessee Warbler.
Rare summer resident. Townshend, Evans.

GENUS COMPSOTHTYPIS.

C. americana (Linn.). Parula Warbler.
Common summer resident.

GENUS DENDROICA.

D. tigrina (Gmel.). Cape May Warbler.
Rare summer resident. Killington, Ross. Townshend, Evans.

D. cærulescens (Gmel.). Blackthroated Blue Warbler.
Rather common summer resident in the northern parts of the State.

D. æstiva (Gmel.). Summer Warbler. Yellow Warbler.

Perhaps our most common warbler. Comes the first of May.

D. coronata (Linn.). Myrtle Warbler.
Common migrant and occasional resident. Appears the last of April.

D. maculosa (Gmel.). Magnolia Warbler.
Not common summer resident.

D. pensylvanica (Linn.). Chestnutsided Warbler.
Quite common summer resident.

D. castanea (Wils.). Baybreasted Warbler.
Not common migrant. Rutland, Ross. Townshend, Evans.

D. striata (Forst.). Blackpoll Warbler.
Rather common migrant. Sometimes nests on the higher mountains. Ross.

D. blackburniæ (Gmel.). Blackburnian Warbler.
Common summer resident.

D. virens (Gmel.). Blackthroated Green Warbler.
Common summer resident.

D. vigorsii (Aud.). Pine Warbler.

Rare. Brattleboro, Townshend, Evans.

D. palmarum (Gmel.). Palm Warbler.

Rare migrant. Ide, Balch.

D. palmarum hypochrysea (Ridgw.). Yellow Palm Warbler.

Occasional migrant. Townshend, Evans.

GENUS SEIURUS.

S. aurocapillus (Linn.). Oven Bird.

Rather common summer resident. Appears early in May.

S. noveboracensis (Gmel.). Water Thrush.

Not common summer resident. We have seen it near Burlington.

GENUS GEOTHLYPIS.

G. agilis (Wils.). Connecticut Warbler.

Rare summer resident. Lunenburg, Balch. Rutland, Ross.

G. philadelphia (Wils.). Mourning Warbler.

Spring migrant. Rare.

G. trichas (Linn.). Maryland Yellowthroat.

Common summer resident.

GENUS ICTERIA.

I. virens (Linn.). Yellowbreasted Chat.

Very rare.

GENUS SYLVANIA.

S. mitrata (Gmel.). Hooded Warbler.

Rare summer resident. Balch.

S. pusilla (Wils.). Wilson's Warbler.

Rare summer resident.

S. canadensis (Linn.). Canadian Warbler.

Rare summer resident.

GENUS SETOPHAGA.

S. ruticilla (Linn.). Redstart.

Not uncommon summer resident. Appears the last part of May.

GENUS ANTHUS.

A. pennsylvanicus (Linn.). American Pipit.

A rather rare migrant.

FAMILY TROGLODYTIDÆ.

GENUS MIMUS.

M. polyglottus (Linn.). Mockingbird.

This southern species would not be expected in Vermont and it does not usually come so far north. It is, however, a rare visitor and in 1884 a pair nested in Lunenburg, as a result of which they are now in the State collection.

GENUS GALEOSCOPTES.

G. carolinensis (Linn.). Catbird.

Very common summer resident. Appears about the middle of May.

GENUS HARPORHYNCHUS.

H. rufus (Linn.). Brown Thrush. Thrasher.

Rare in some localities, rather common in others. Summer resident.

GENUS THRYOTHORUS.

T. ludovicianus (Lath.). Carolina Wren.

A rare visitant in the southern part of the State.

GENUS TROGLODYTES.

T. ædon (Vieill.). House Wren.

Common summer resident.

T. hyemalis (Vieill.). Winter Wren.

Rather rare migrant. Very rarely it breeds.

GENUS CISTOTHORUS.

C. palustris (Wils.). Longbilled Marsh Wren.

Very rare. Middlebury, Meade.

FAMILY CERTHIIDÆ.

GENUS CERTHIA.

C. familiaris americana (Bon.). Brown Creeper.

Not common. Summer resident.

FAMILY PARIDÆ.

GENUS SITTA.

S. carolinensis (Lath.). Whitebreasted Nuthatch.

Common resident.

S. canadensis (Linn.). Redbreasted Nuthatch.

Not as common as the preceding. Winter resident. Rarely resident.

GENUS PARUS.

P. bicolor (Linn.). Tufted Titmouse.

Not common resident.

P. atricapillus (Linn.). Chickadee. Blackcapped Titmouse.

Common resident.

FAMILY SYLVIIDÆ.

GENUS REGULUS.

R. satrapa (Licht.). Goldencrested Kinglet.

Winter resident. More common migrant.

R. calendula (Linn.). Rubycrested Kinglet.

Common migrant and sometimes summer resident. Killington and Pico, Ross.

FAMILY TURDIDÆ. THRUSHES.

GENUS TURDUS.

T. mustelinus (Gmel.). Wood Thrush.

Not very common. Summer resident.

T. fuscescens (Steph.). Wilson's Thrush.

Not very common. Summer resident.

T. alicie (Baird). Graycheeked Thrush.

Rare summer resident. Lunenburg, Balch.

T. alicie bicknelli (Ridg.). Bicknell's Thrush.

Rare summer resident. More common migrant.

T. ustulatus swainsonii (Cab.). Olivebacked Thrush.

More common in the northern part of the State than elsewhere. Summer resident.

T. aonalaschkæ pallasii (Cab.).

Common summer resident. Comes early in May.

GENUS MERULA.

M. migratoria (Linn.). Robin.

Very common summer resident. Rarely remains through the winter.

GENUS SIALIA.

S. sialis (Linn.). Bluebird.

Not usually common throughout the State, but abundant in some localities.

CONTRIBUTIONS
TO
NORTH AMERICAN ORNITHOLOGY.

BY
REGINALD HEBER HOWE, JUNIOR,
LONGWOOD, MASSACHUSETTS.

A REVIEW OF PROF. GEORGE H. PERKINS' "A PRE-
LIMINARY LIST OF THE BIRDS FOUND
IN VERMONT."*

INTRODUCTION.

HAVING had in view the ultimate publication of a list of the birds of Vermont, I have collected and compiled all the available data, and here beg leave to present my results in the form of a review of Prof. Perkins' "A Preliminary List of the Birds Found in Vermont."

Prof. Perkins' List is hardly as complete or careful a one as we to-day look for in like works, and it contains unfortunately many noticeable errors. Prof. Perkins does not pretend to be an ornithologist, and acknowledges the shortcomings of his work. He undertook its publication only at the request of the State Board of Agriculture, and the list will, I fear, encumber the bibliography of Vermont ornithological literature, rather than prove of value in a needed place. It is on account of its inadequateness that I venture to add what I can to correct and amplify his List,—though the avi-fauna of Vermont as yet is little known, and Prof. Perkins' List and this Review must be accepted only as a basis for future investigation.

* A Preliminary List | of the | Birds Found in Vermont. | By | George H. Perkins, Ph. D., | Professor of Natural History, University of Vermont. | Assisted by | Clifton D. Howe, M. S., | Assistant in Biology, University of Vermont.... | New York and Albany | 1901 | Separate, pp. 1-34, published Dec. 24, 1901. Also published Jan 15, 1902, in the Twenty-first Annual Report State Board of Agriculture for 1901, pp. 85-118.

Of all the New England states Vermont without doubt has had less competent observers, and therefore less published on its birds than any other New England state. And there remains much interesting work to be done, especially on the summer birds of its mountains. In Coues' and Stearns' "New England Bird Life" I find only a score of observations on Vermont birds, much fewer even than given for the small state of Rhode Island, where there has been little enough done compared with Maine, New Hampshire, Massachusetts and Connecticut.

TOPOGRAPHY.

Prof. Perkins does not speak in his preface at all of the topography of Vermont, omitting a most important consideration. It is neither proper here, nor have I space to discuss Vermont's topography, suffice it to say that the State lies between parallels $42^{\circ} 30'$ and $45''$, and meridians $73^{\circ} 30'$ and $71^{\circ} 30'$. Its northern border is 90 miles wide, its southern 41, and its entire length is 158 miles. The Connecticut river forms its eastern boundary and Lake Champlain (126 miles long and 1 to 15 broad) more than the northern half of its western border. The Green Mountain divide runs as a "ridge pole" longitudinally through its centre, from which numerous water courses run southeast and southwest. The State from its interior situation has no seacoast, though the Connecticut and St. Lawrence rivers, and Lakes Champlain and Memphremagog attract water birds to its borders. Its lowlands average from 200 to 500 feet above sea level, and its highest mountain, Mount Mansfield, is 4,364 feet in altitude. There are five other mountains in the State over 4,000 feet, and twelve over 3,500.

SILVA AND FLORA.

These also very important topics have been overlooked by Prof. Perkins and are in any length outside the scope of this review. The mountains generally are covered with spruce forests (*Picea rubra*), though the alder (*Alnus alnobetula*) is also common, while in the lower altitudes the most abundant growths are the paper and yellow birch (*Betula lutea* and *papyrifera*), beech (*Fagus americanus*), sugar, mountain and striped maple (*Acer saccharum*, *spi-*

catum, and *pennsylvanicum*), hemlock (*Tsuga canadensis*), and balsam fir (*Abies balsamea*). The woods are wonderfully varied and the following trees are also by no means uncommon — Tamarack (*Larix americana*), Red Pine (*Pinus resinosa*), Arbor Vitae (*Thuja occidentalis*), Cherry (*Prunus serotina* and *pennsylvanica*), Poplar (*Populus tremuloides*), Ash (*Fraxinus americana* and *sambucifolia*), Oak (*Quercus alba* and *rubra*), and Chestnut (*Castanea sativa*). For an account of the Flora I refer my readers to the "Flora of Vermont," prepared by Ezra Brainerd, L. R. Jones, and W. W. Eggleston. Burlington, 1900.

FAUNAL AREAS.

A discussion of the faunal areas is only just touched upon by Prof. Perkins. An understanding of this most important and interesting subject can best be accomplished only after much careful field work has been carried on, especially on the mountains and along the river valleys. Four life zones are represented in Vermont, viz.: Upper Austral, Transition, Canadian, and Hudsonian. The Upper Austral is represented only in the southernmost portion of the State at Pownall, where the Chat (*Icteria virens*), has been found. The Transition zone covers all the valleys and country up to nearly 2,000 feet. Species of this fauna, however, vary greatly in their distribution, we find for example the Bob-White (*Colinus virginianus*) only in the very southernmost valleys while the Kingbird (*Tyrannus tyrannus*), Scarlet Tanager (*Piranga erythromelas*), and Yellow Warbler (*Dendroica aestiva*) are found about the base of Mt. Mansfield. The Canadian zone is well represented on all the mountains and foothills above about 1,500 feet, extending with the mountains as a belt down the centre of the State, and as islands on southern monadnocks. The Hudsonian zone is represented only by a few species — the Bicknell's Thrush (*Hylocichla a. bicknelli*) Mt. Mansfield, Jay Peak, Mt. Killington, Pico Peak, Mt. Annanance (Willoughby)?, and probably on other mountain tops above 3,000 ft., Hudsonian Chickadee (*Parus hudsonicus*) Sutton, Mt. Stratton. Red Crossbill (*Loxia c. minor*) Craftsbury, Pine Siskin (*Spinus pinus*) Brattleboro, Hartland, Rutland and Mt. Mansfield? and Canada Jay (*Perisoreus canadensis*) Mt. Mansfield and Somerset.

"LIST OF BIRDS FOUND IN VERMONT."

Numbers printed in *italics* signify new species added to Prof. Perkins' List.

1. *Colymbus holboëllii*. RED-NECKED GREBE.—A rare straggler in winter, and not a "summer migrant." *Middlebury, Wells River*, winter 1879-'80, Herrick. *Windsor*, one seen in full breeding plumage in the local collection of Russell Brewster, taken evidently in the spring.

2. *Colymbus auritus*. HORNED GREBE.—A rare winter visitant, and not a "summer migrant." *Middlebury, Alburgh, Windsor, St. Johnsbury*.

3. *Podilymbus podiceps*. PIED-BILLED GREBE.—to Oct. 19.

4. *Gavia imber*. LOON.—Breeds not uncommonly on Lakes Champlain, Memphremagog, Bomoseen, and Dunmore, and elsewhere.

5. *Gavia lumme*, RED-THROATED LOON.—Evidently a rare straggler in autumn and winter. *Burlington Bay*, Nov. 1, 1846.

Uria troile. MURRE.—This species probably very rarely if ever comes as far south as Vermont. It is certainly never a "summer migrant," and until a definite record can be cited the species should not be enumerated.

6. *Uria lomvia*. BRUNNICH'S MURRE.—A winter visitant, often in exceptional numbers, for example in Decembers 1892 and 1894, and in November, 1899. It visits chiefly Lake Champlain, but has been taken on the LaMoille River and elsewhere. It too never is a "summer migrant."

7. *Alle alle*. LITTLE AUK. An accidental winter visitant. *Sharon*, autumn 1869-'70, Baxter.

8. *Stercorarius longicaudus*. LONG-TAILED JAEGER.—An accidental visitant. *West Castleton*, two were seen, one of which was taken about Sept. 7, 1877, by G. B. Dunbar (Auk, 1884, pp. 97-98).

9. *Rissa tridactyla*. KITTIWAKE GULL.—A rare straggler in winter, one shot at *St. Johnsbury* about 1884. Graham, (Rand. Notes, Vol. I, 1884, p. 4). *St. Albans*, occasional, Woodworth.

Larus glaucous. GLAUCOUS GULL.—There seems some reason to doubt this record as *Larus argentatus* is not included in Dr. Cutting's List and his knowledge of water birds seemed slight.

10. *Larus argentatus*. HERRING GULL.—Occurring also as an autumn and winter visitant, though absent in the severest weather. Its breeding on Four Brothers Island (New York) is attested by others beside Prof. Perkins.

11. *Larus atricilla*. LAUGHING GULL.—Probably not a "summer resident." Its occurrence except as a straggler seems doubtful. *Bristol*, one young caught May, 1883, E. O. Tuttle. *St. Albans*, occasional, Woodworth.

* The order followed in this Review for convenience sake is the same as that followed by Prof. Perkins, that of the American Ornithologists' Union.

REVIEW OF PERKINS' "BIRDS OF VERMONT."

12. *Larus philadelphia*. BONAPARTE'S GULL.—A rare spring and autumn visitant. Its breeding on Lake Champlain should be confirmed. It has been taken at Newport, Shelburne Bay, and elsewhere.

13. *Sterna hirundo*. WILSON'S TERN.—*St. Albans*, included in Edson's list.

14. *Sterna nigra surinamensis*. BLACK TERN.—*Lake Bomoseen*, three were seen and one was taken on June 6, 1883, by J. Richardson.

15. *Sterna fuliginosa*. SOOTY TERN.—A straggler from the south. *Rutland*, one taken in 1876 by J. Richardson. *Larrabee's Pt., Lake Champlain*, one taken in 1876 by J. Richardson.

16. *Oceanodroma leucorhoa*. LEACH'S PETREL.—An accidental visitant.

17. *Oceanites oceanicus*. WILSON'S PETREL.—Accidental visitant. *St. Albans*, prior to 1895, Woodworth (Auk, 1895, p. 311).

18. *Phalacrocorax carbo*. COMMON CORMORANT.—*Rutland*, one taken in spring of 1867 by J. Richardson.

19. *Phalacrocorax auritus*. DOUBLE-CRESTED CORMORANT.—An accidental visitant. *Windsor*, one taken a number of years ago I found in the local collection of Russell Brewster. *Burlington*, one shot November, Woodworth, *Cambridge*, one shot December, Woodworth.

20. *Merganser americana*. AMERICAN MERGANSER.—Nest found at White River Junction, June 18, 1877, and Wells River.

21. *Merganser serrator*. RED-BREASTED MERGANSER.—Common migrant particularly on Lake Champlain. April to October.

22. *Lophodytes cucullatus*. HOODED MERGANSER.—I know of no actual breeding records. *Otter Creek, Brandon*, one taken March 27, 1878. *Lake Bomoseen*, one taken September, 1877.

23. *Anas boscas*. MALLARD DUCK.—Rare in autumn. *Lake Bomoseen*, one taken in 1877. *Lunenburg, St. Albans Bay*.

24. *Anas obscura*. BLACK DUCK.—Nest found at Burlington May, 1883, at St. Albans, and on Cedar Island.

25. *Chaulelasmus streperus*. GADWALL.—This specimen was taken in the spring of 1879. *St. Albans* one taken, Woodworth.

Mareca penelope. EUROPEAN WIDGEON.—There is no record of the capture of this species in the State to my knowledge.

26. *Mareca americana*. WIDGEON.

27. *Nettion carolinense*. GREEN-WINGED TEAL.—A common migrant in March and September. Its breeding needs confirmation.

28. *Querquedula discors*. BLUE-WINGED TEAL.—I have no records of its breeding. April, May.

29. *Spatula clypeata*. SHOVELLER DUCK.—It is now rare anywhere in New England.

30. *Dafila acuta*. PINTAIL DUCK.—Occasionally migrant, St. Albans, Edson.

31. *Æx sponsa*. WOOD DUCK.—This is not a "permanent resident," but a common summer resident. April 8 to October 23.

32. *Nyroca americana*. RED-HEAD DUCK.

Nyroca vallisneria. CANVASBACK DUCK.—I can find no records.

33. *Nyroca marila*. GREATER SCAUP DUCK.

34. *Nyroca affinis*. LESSER SCAUP DUCK.—The bird taken at Otter Creek was a female, and was taken on May 19, 1883.

35. *Clangula clangula americana*. AMERICAN GOLDEN-EYE DUCK.—The statement refers to the winter season.

Clangula islandica. BARROW'S GOLDEN-EYE DUCK.—The specimens in the Fairbanks Museum, Miss Ide writes, are without data; there is nothing to prove they were even taken in Vermont, and it is very doubtful if they were.

36. *Charitonetta albeola*. BUFFLE-HEAD DUCK.

37. *Harelda hiemalis*. LONG-TAILED DUCK.—*Windsor*, two taken a number of years ago I found in the local collection of Mrs. Geo. Thurston.

38. *Ædemia americana*. AMERICAN SCOTER.—*Windsor*, one found in the local collection of Mrs. Geo. Thurston. This, and the two following species are spring and autumn migrants, and winter residents only when there is open water.

39. *Ædemia perspicillata*. SURF SCOTER.

40. *Ædemia deglandi*. WHITE-WINGED SCOTER.

41. *Erismatura jamaicensis*. RUDDY DUCK.

42. *Nomonyx dominicus*. MASKED DUCK.—An accidental straggler from the south. The bird referred to was secured from a boy by Henry D. Morse, and was taken on Sept. 26, 1857, at *Alburgh Springs*, Missisquoi Bay, and is now in the collection of the Boston Society of Natural History (No. 482). (Proc. B. S. N. H. VI, 1858, p. 375).

43. *Chen hypoborea*. LESSER SNOW GOOSE.—A very rare migrant. *Lunenburg*, W. E. Balch. (?) *St. Johnsbury*, one shot about 1884. (Rand. Notes, Graham, Vol. I, 1884, p. 4.)

Anser albifrons gambelli. WHITE-FRONTED GOOSE.—The record given seems hardly definite enough to enumerate the species as a bird of Vermont.

44. *Branta canadensis*. CANADA GOOSE.—March and October.

45. *Branta bernicla*. BRANT.

Branta leucopsis. BARNACLE GOOSE.—Accidental from the Old World. *Marshfield*, one found in the Boston Market which was taken in 1878 (Proc. B. S. N. H. XIX, 1878, p. 307, 308). Mr. Outram Bangs, who found the bird, tells me it was with a lot of geese which were said to have come from Marshfield. This particular bird had just been picked by the market man all except the head and wings. The bird was in a fresh condition, it being before the days of cold storage, and it undoubtedly came from some point in New England. The record Mr. Bangs thinks is as good as any market record can be. The head was in the possession of Mr. C. J. Maynard.

46. *Olor columbianus*. WHISTLING SWAN.—Now accidental. This recent record from its character needs confirmation.

47. *Guara alba*. WHITE IBIS.—Accidental from the south. One was taken at *South Woodstock*, summer, 1878, by C. O. Tracy. (O. & O., Vol. X, 1885, p. 10.)

48. *Tantalus loculator*. WOOD IBIS.—An accidental visitant from the south. Prof. Perkins writes me the one that was taken was shot by a drummer on the border of Mud Pond in Williston, about five years ago, where the two were first seen and had remained all summer, according to a Mr. Hough.

49. *Botaurus lentiginosus*. AMERICAN BITTERN.—Arrives April 30.

Ardetta exilis. LEAST BITTERN.—The present status of this species in Vermont is very uncertain. I can find no records.

50. *Ardea herodias*. GREAT BLUE HERON.—Breeds at Castleton, Leicester, and elsewhere. Mt. Mansfield, Howell. One winter record, Milton, LaMoille River, Dec. 22, 1884 (Brush. Rand. Notes, Vol. II, 1885, p. 15).

51. *Ardea egretta*. AMERICAN EGRET.—Accidental from the south. *New Haven*, two were taken in August, 1882, F. H. Herrick.

52. *Ardea candidissima*. SNOWY HERON.—*St. Albans Bay*, two were taken in Oct., 1890, one is now in the possession of Henry Sampson, St. Albans, the other is in Swanton.

Ardea cærulea. LITTLE BLUE HERON.—Reported by Miss A. L. Grout from Brattleboro. The record needs confirmation.

53. *Butorides virescens*. GREEN HERON.—May to October.

54. *Nycticorax nycticorax nævius*. NIGHT HERON.—Apparently of peculiar and irregular distribution. Rutland, common in autumn. Windsor, uncommon, St. Johnsbury, Townsend, Johnson, Lake Champlain.

Grus americana. WHOOPING CRANE.—See "Extirpated Species" for this and the following species where they should have been placed.

Grus mexicana. SANDHILL CRANE.

Rallus crepitans. CLAPPER RAIL.—Mr. Conger on courteous inquiry will cite no definite record.

55. *Rallus virginianus*. VIRGINIA RAIL.—Breeds at Burlington and in Rutland Co.

56. *Porzana carolina*. CAROLINA RAIL.—Common autumn migrant.

57. *Porzana noveboracensis*. YELLOW RAIL.—A migrant.

58. *Gallinula galeata*. FLORIDA GALLINULE.—Breeds on the shores of Lake Champlain, in Bomoseen Lake, nest and eggs taken by J. Richardson, also at St. Albans according to Mrs. N. H. Woodworth. Ferrisburgh, one caught Apr. 28, 1879, R. E. Robinson (F. & S., Vol. XII, p. 285).

Ionornis martinica. PURPLE GALLINULE.—Said to have been not uncommon at Ferrisburgh by R. E. Robinson about 1879, an evident error. (F. & S. XII, p. 285).

59. *Fulica americana*. AMERICAN COOT.—Breeds at Lake Bomoseen.

60. *Crymophilus fulicarius*. RED PHALAROPE.—A rare migrant from the north.

61. *Recurvirostra americana*. AMERICAN AVOCET.—*St. Albans*, one taken by G. E. Edson.

62. *Philoheila minor*. AMERICAN WOODCOCK.—Becoming rare. —to October.

63. *Gallinago delicata*. WILSON'S SNIPE.—Probably not a summer resident, but a common migrant.

Macrorhamphus griseus. DOWITCHER.—Recorded doubtfully by Dr. Cutting, from Lake Memphremagog.

Tringa maritima. PURPLE SANDPIPER.—An evident error. Breeds only in the far north. Its occurrence in Vermont at all needs confirmation.

64. *Tringa maculata*. PECTORAL SANDPIPER.—Probably not uncommon as a migrant.

65. *Tringa fuscicollis*. WHITE-RUMPED SANDPIPER.—Not improbably an uncommon migrant. *St. Albans Bay*, a pair observed in Aug. or Sept., Mrs. Woodworth. Also included in Edson's list.

66. *Tringa minutilla*. LEAST SANDPIPER.

67. *Ereunetes pusillus*. SEMIPALMATED SANDPIPER.—Lakes Champlain and Bomoseen.

68. *Calidris arenaria*. SANDERLING.—A rare migrant. *Burlington*, September, 1841. *St. Albans*, Edson.

69. *Limosa fedoa*. MARBLED GODWIT.—Mentioned by Williams as occurring in Vermont in his 1794 List.

70. *Limosa hæmastica*. HUDSONIAN GODWIT.

71. *Totanus melanoleucus*. GREATER YELLOW-LEGS.—May.

72. *Totanus flavipes*. LESSER YELLOW-LEGS.—As a rule only an autumn migrant.

73. *Helodramus solitarius*. SOLITARY SANDPIPER. Nest found at Lake Bomoseen in May, 1898, by J. Richardson. This record, I understand, was not considered authentic by Major Bendire. It has also been said to breed at Wells River where young have been seen from 1876 to 1883 by S. M. Chamberlain, and at St. Albans Bay and elsewhere. All the records need confirmation.

74. *Symphemia semipalmata*. WILLET.—Perhaps breeds.

75. *Bartramia longicauda*. BARTRAMIAN SANDPIPER.—Not uncommonly breeds. April 24 to September.

Tryngites subruficollis. BUFF-BREASTED SANDPIPER.—Very rare migrant. Occurrence on Dr. Cutting's authority needs confirmation.

76. *Actitis macularia*. SPOTTED SANDPIPER.—April to September. Breeds all over the State.

Numenius —. CURLEW.—Two species of this genus, probably *hudsonicus* and *borealis* are spoken of by Williams in his 1794 List as occurring in Vermont.

77. *Squatarola squatarola*. BLACK-BELLIED PLOVER.

78. *Charadrius dominicus*. GOLDEN PLOVER. Migrant.

79. *Ægialitis vocifera*. KILDEER PLOVER. This statement refers to Lake Champlain region. *Brattleboro*, Grout.

Ægialitis dubia. LITTLE RING PLOVER.—An Old World species, here probably synonymous with *A. semipalmata*.

80. *Ægialitis meloda*. PIPING PLOVER.—Mr. Ross writes me that he did not take the pair, that a collector called his attention to nesting close to a pond near Otter Creek, where Piping Plover were said to have been seen two previous seasons, and owing to this uncertainty of identification, and the unlikelihood of such an occurrence the record had better be expunged.

81. *Ægialitis semipalmata*. SEMIPALMATED PLOVER.—*Mechanicsville*, autumn, 1878. *Randolph*, autumn, 1850, C. S. Paine.

Ægialitis wilsonia. WILSON'S PLOVER.—Evidently an error. A southern species.

82. *Arenaria interpres*. TURNSTONE. Evidently a rare migrant.

83. *Colinus virginianus*. BOB-WHITE.—It is known to occur in the southeastern part of Vermont in a wild state as far north as Londonderry and Townshend where it is reported by F. H. Allen and C. H. Evans. Mrs. Woodworth writes me one or two are occasionally seen about St. Albans, which were probably introduced, and Mr. Ham writes though not introduced to his knowledge it occurred once in Johnson in 1901.

84. *Canachites canadensis*. CANADA GROUSE.—It apparently does not occur on Mt. Mansfield in summer, but only in the most northern portions of the State. Victoria, C. H. Horton.

85. *Bonasa umbellus*. RUFFED GROUSE.—True or nearly true umbellus is found in the valleys in the southern portion of the State, but on and about the mountains and in the northern portions the race *togata* takes its place.

86. *Bonasa umbellus togata*. CANADIAN RUFFED GROUSE.

Tetraogallus capercailli. CAPERCAILLI.—See Introduced Species.

Tetrao tetrix. BLACK GAME.—See Introduced Species.

Pediocetes phasianellus. SHARP-TAILED GROUSE. See Introduced Species.

Meleagris gallapavo. WILD TURKEY.—See Extirpated Species.

Phasianus torquatus. RING-NECKED PHEASANT.—See Introduced Species.

87. *Ectopistes migratorius*. WILD PIGEON.

88. *Zenaidura macroura*. MOURNING DOVE.—Mr. Ross writes me he has seen it only twice, both times in the breeding season.

89. *Cathartes aura*. TURKEY VULTURE.—This and the next species are accidental from the south. *Eutaw*, one taken prior to 1883. (Forest & Stream, Vol. IV, p. 5.)

90. *Catharista urubu*. BLACK VULTURE.—*Woodbury*, near Montpelier, adult taken July 11, 1884, C. W. Graham. (Rand. Notes, No. IX, 1884, p. 4), probably the one in the Fairbanks Museum labelled Danville and taken by Graham.

Elanoides forficatus. SWALLOW-TAILED KITE.—Accidental from the south. Coues' and Stearn's say "It was ascribed to Vermont, no doubt

correctly, by a writer of the last century," referring to Williams (p. 112) where the *Falco furcatus* is mentioned as occurring apparently in equal abundance with such birds as the Blue Jay. On this data it does not deserve enumeration. (N. E. Bird Life, Vol. II, p. 103).

91. *Circus hudsonius*. MARSH HAWK.—A not uncommon summer resident. According to W. A. Briggs it is seen at Montpelier during mild winters. April to October.

92. *Accipiter velox*. SHARP-SHINNED HAWK.—Occasionally winters.

93. *Accipiter cooperii*. COOPER'S HAWK.—Occasionally rarely winters.

94. *Accipiter atricapillus*. GOSHAWK.—According to Knowlton a nest was taken in Rutland in 1875 by H. E. Boughton. (Brandon Union, Feb. 10, 1882.)

95. *Buteo borealis*. RED-TAILED HAWK.

96. *Buteo lineatus*. RED-SHOULDERED HAWK.

Buteo swainsoni. SWAINSON'S HAWK. This record should be confirmed.

97. *Buteo platypterus*. BROAD-WINGED HAWK.—Not uncommon. April 14 to—

98. *Archibuteo lagopus sancti-johannis*. ROUGH-LEGGED HAWK.—*Larrabee's Pt.*, young taken Oct., 1879, by J. Richardson. *Townshend*, 1895, Evans. *St. Albans*, Edson.

99. *Aquila chrysaetos*. GOLDEN EAGLE.—Said to have nested by Drs. Cutting and Brewer. *Pittsford* two immature birds taken, one in 1873 and one in 1875, J. Richardson.

100. *Haliaetus leucocephalus washingtoni*. WASHINGTON'S EAGLE.—Said to breed in Castleton, Hubbardton, and along the shores of Lake Champlain.

Falco rusticolus gyrfalco. GYRFALCON.—This species was recorded by Dr. Brewer as a "rare resident" at Dummerston. As none of the Gyrfalcons are known to breed in the United States this record was probably an error, at least it does not deserve enumeration. (Proc. B. S. N. H. 1875, p. 444.)

101. *Falco peregrinus anatum*. DUCK HAWK.—Breeds at Owl's Head (Canada) on Lake Memphremagog, at Brandon, at Hawk Hill, Wallingford, Little Ascutney, and on Mt. Annanance (Willoughby).

102. *Falco columbarius*. PIGEON HAWK.—Its occurrence as a summer resident needs confirmation.

103. *Falco sparverius*. SPARROW HAWK.—April 9 to —.

104. *Pandion haliaetus carolinensis*. OSPREY.—Does not remain through the winter in New England.

105. *Strix pratincola*. BARN OWL.—An accidental visitant from the south. The only definite record is *Lyndon*, a male taken June 4, 1894, M. G. Tyler. (Auk, 1894, p. 253.)

106. *Asio wilsoniana*. LONG-EARED OWL.

107. *Asio accipitrinus*. SHORT-EARED OWL.—Local. Its wintering is unlikely, though it may occasionally.

108. *Syrnium nebulosum*. BARRED OWL.
109. *Scotiaptex cinerea*. GREAT GRAY OWL.—*Lunenburg*, Nov. 27, 1879, F. H. Herrick. *Milton*, two taken winter of 1883, H. A. Brush. (Rand. Notes, 1885, p. 15.)
110. *Cryptoglaux tengmalmi richardsonii*. RICHARDSON'S OWL.—*Windsor*, I found one in the local collection of Russell Brewster taken some years ago.
111. *Cryptoglaux acadica*. SAW-WHET OWL.—Bred at Townshend,—1901, Evans. Breeds according to Ross in Rutland Co. above 2,000 feet. Taken at Brandon in winter 1880-'81. Windsor.
112. *Megascops asio*. SCREECH OWL.—Of irregular distribution.
113. *Bubo virginianus*. GREAT HORNED OWL.
114. *Nyctea nyctea*. SNOWY OWL.—*Mechanicsville*, 1876. Brandon, 1880-82. *Middlebury*, 1882. *Vergennes*, 1887. *Cornwall*, winter 1887-'88. Oct. 20 to —.
115. *Surnia ulula caparoch*. HAWK OWL.—Is not known to breed in the United States. A rare winter visitor. *Cornwall*, Parkhill. Nov. 2 to —.
116. *Coccyzus americana*. YELLOW-BILLED CUCKOO.—Rare. *Rutland*, July 8, 1883, F. H. Herrick and said by Ross to be a "rare summer resident." *Cornwall*, June, 1899, Parkhill. *Townshend*, "fairly common," Evans. *St. Albans*, Edson. *St. Johnsbury*, May 29, 1900, Clark.
117. *Coccyzus erythrophthalmus*. BLACK-BILLED CUCKOO.
118. *Ceryle alcyon*. BELTED KINGFISHER. April to October.
119. *Dendrocopus villosus*. HAIRY WOODPECKER.
120. *Dendrocopus pubescens medianus*. NORTHERN DOWNY WOODPECKER.
121. *Picoides arcticus*. ARCTIC THREE-TOED WOODPECKER.—Also reported from *Lunenburg* where two nests were taken in 1880-82.
122. *Picoides bacatus*. THREE-TOED WOODPECKER.—*Taftsville* in winter. *Pico Peak*, summer resident above 2,500 feet according to Ross.
123. *Sphyrapicus varius*. YELLOW-BELLIED SAPSUCKER.
124. *Ceophloeus pileatus abieticola*. NORTHERN PILEATED WOODPECKER.—Very rare in southern portions of the State. Breeds as far south as *Well's River*, *Taftsville*, *Townshend*.
125. *Melanerpes erythrocephalus*. RED-HEADED WOODPECKER.—Said to breed in western Vermont, but elsewhere only a rare straggler. *Stowe*, two June, 1896, C. E. Straw. *Taftsville*, May 11 and July 17, 1883, C. O. Tracy. *Rutland*, summer resident, Ross.
126. *Colaptes auratus luteus*. NORTHERN FLICKER. April 18 to —.
127. *Antrostomus vocifera*. WHIP-POOR-WILL.—May 10 to Sept. 16.
128. *Chordeiles virginianus*. NIGHT HAWK.—May to Sept.
129. *Chætura pelagica*. CHIMNEY SWIFT.—May 1 to —.
130. *Trochilus colubris*. RUBY-THROATED HUMMINGBIRD.—May 18 to Sept.
131. *Milvulus forficatus*. SCISSOR-TAILED FLYCATCHER.—Accidental from the west. *St. Johnsbury*, one killed by C. W. Graham apparently in

1884, and then said to have been sent to the Dartmouth College collection, though now not there. (Rand. Notes, No. VIII, 1884, p. 3, and Brewster's Minot, Appendix, 1895, pp. 475-6).

132. *Tyrannus tyrannus*. KINGBIRD.—May 8 to —.

133. *Myiarchus crinitus*. CRESTED FLYCATCHER.—May 8 to —.

134. *Sayornis phœbe*. PHOEBE.—April 5 to October.

135. *Nuttallornis borealis*. OLIVE-SIDED FLYCATCHER.—Confined *mostly* to the mountainous regions. Pownall. May 10 to —.

136. *Horizopus virens*. WOOD PEWEE.—May to late Sept.

137. *Empidonax flaviventris*. YELLOW-BELLIED FLYCATCHER.—A not uncommon summer resident in Vermont. May 25 to —.

Empidonax virescens. ACADIAN FLYCATCHER.—A southern species, no definite record, probably synonymous with *E. minimus*.

138. *Empidonax traillii alnorum*. ALDER FLYCATCHER.—Not uncommon in suitable localities.

139. *Empidonax minimus*. LEAST FLYCATCHER.—May 10 to Sept.

140. *Otocorys alpestris*. SHORE LARK.—A not uncommon winter visitant principally to the shores of Lake Champlain, Taftsville, and elsewhere. Prof. Perkins' last two paragraphs refer undoubtedly to the following species.

141. *Otocorys alpestris praticola*. PRAIRIE HORNED LARK.—A rare summer resident, also rarely occurring in winter. Cornwall, noted April, 1889, P. H. Parkhill (O. & O., Vol. XIV, 1889, p. 87). Stowe, observed in 1898, and nested in 1901, E. C. Straw (Howell, Auk, 1901, p. 341). Mt. Mansfield, one seen June 19, 1897, Dr. Walter Faxon. St. Albans, nest taken May 30, 1893, G. E. Edson, Rutland, fledglings noted on several occasions, Ross.

142. *Cyanocitta cristata*. BLUE JAY.

143. *Perisoreus canadensis*. CANADA JAY.—Reported in summer from Mt. Mansfield and Somerset.

144. *Corvus corax*. RAVEN.—Reported from Brandon autumn of 1879.

145. *Corvus americanus*. AMERICAN CROW.

Corvus ossifragus. FISH CROW.—This record needs confirmation.

146. *Dolichonyx orizivorus*. BOBOLINK.

147. *Molothrus ater*. COWBIRD.—Generally uncommon. One winter record, Dec. 30, 1883, Taftsville, which I have been unable to confirm.

148. *Agelaius phoeniceus*. RED-WINGED BLACKBIRD.—April 18 to October.

149. *Sturnella magna*. MEADOWLARK.—April 2 to —. Winters occasionally at St. Albans, on the shores of Lake Champlain, Woodsworth.

150. *Icterus spurius*. ORCHARD ORIOLE.—Confined to southernmost Vermont where there are no actual breeding records. *Middlebury*, two males taken June 1, 1882, F. H. Knowlton, *Brattleboro*, recorded.

151. *Icterus galbula*. BALTIMORE ORIOLE.—One winter record, *Uxbridge*, one taken Dec. 4, 1884, Taft. (Rand. Notes, Vol. II, 1885, p. 15). (April 17) May 14 to Sept.

152. *Scolecophagus carolinus*. RUSTY GRACKLE.—Not uncommon. April 28 to —.

Quiscalus quiscula. PURPLE GRACKLE.—This species never occurs as far north as Vermont.

153. *Quiscalus quiscula æneus*. BRONZED GRACKLE.—A summer resident. April 11 to Oct.

154. *Coccothraustes vespertinus*. EVENING GROSBEAK.—Visited Vermont during the famous 1890 flight. *Burlington*, about a dozen were seen about Feb. 20, 1890, by W. W. Cooke. (Auk, 1890, p. 210.)

155. *Pinicola enucleator leucura*. CANADIAN PINE GROSBEAK.—Probably always visits northern Vermont in varying numbers in winter. Nov. 15 to Mar. 24.

156. *Carpodacus purpureus*. PURPLE FINCH.

157. *Loxia curvirostra minor*. RED CROSSBILL.—Irregular at all seasons. Nested at Craftsbury, and Middlebury.

158. *Loxia leucoptera*. WHITE-WINGED CROSSBILL.—Two nests with young are said to have been taken at Lunenburg, on March 22, 1878, by W. E. Balch. Dr. W. Faxon found it on Mt. Mansfield on June 20, 1897.

159. *Acanthis linaria*. REDPOLL.—Nov. to May 11.

Acanthis hornemannii exilipes. HOARY REDPOLL.—This species on present evidence does not deserve enumeration. *A. l. rostrata* though unrecorded, undoubtedly occurs in late winter.

160. *Astragalinus tristis*. GOLDFINCH.—It also winters not uncommonly.

161. *Spinus pinus*. PINE SISKIN.—Has been found nesting in Brattleboro, at Hartland, at Rutland where a nest was found in May, 1879 by D. C. Worcester, and is recorded from Mt. Mansfield in summer (Howell) where it undoubtedly breeds.

162. *Plectrophenax nivalis*. SNOW BUNTING.—Irregular in numbers, but not in occurrence. Nov. 17 to —.

163. *Calcarius lapponicus*. LAPLAND LONGSPUR.—Reported from *Townshend* by Evans, but only positive record is *Brandon*, Feb. 21, 1879, F. H. Knowlton. (Brandon Union, Feb. 10, 1882).

164. *Poæcetes gramineus*. VESPER SPARROW.—April 5 to —.

165. *Passerculus sandwichensis savanna*. SAVANNAH SPARROW.

166. *Ammodramus savannarum passerina*. GRASSHOPPER SPARROW.—Of irregular and local distribution. Nested at Cornwall in 1889, Pownall, Brewster, and also at Stowe in 1899, Straw (Howell). Vergennes, June, 1897, W. Faxon.

167. *Ammodramus henslowii*. HENSLOW'S SPARROW.—A local species in southern Vermont. Nested at Pownall in 1883 (Brewster, Auk, 1884, p. 7).

Ammodramus caudacutus. SHARP-TAILED SPARROW.—Its occurrence needs confirmation, as it is strictly a maritime species.

168. *Zonotrichia leucophrys*. WHITE-CROWNED SPARROW.—It is said to have bred at Rutland by E. H. Boughton, a probable error. Oct. 4 to 24.

169. *Zonotrichia albicollis*. WHITE-THROATED SPARROW.—A common summer resident except in the valley country.—to Oct. 24.

170. *Spizella monticola*. TREE SPARROW.—Only a winter visitor. October to —.

171. *Spizella socialis*. CHIPPING SPARROW.—April 16 to Oct.

172. *Spizella pusilla*. FIELD SPARROW.

173. *Junco hiemalis*. SNOWBIRD.

174. *Melospiza cinerea melodia*. SONG SPARROW.—Occasionally winters in southern Vermont, Brownsville, where I found at least one Dec. 26–31, 1901, and Taftsville, Feb. 5, 1884, C. O. Tracy. March 7 to —.

175. *Melospiza lincolni*. LINCOLN'S FINCH.—A not uncommon migrant, and not so far as I know a "summer resident," though it would not be surprising to find it breeding rarely in northern portions of the State, as it breeds regularly in northern New York.

176. *Melospiza georgiana*. SWAMP SPARROW.—Local, but not uncommon.

177. *Passerella iliaca*. FOX SPARROW.—Oct. 14 to 30.

178. *Passer domesticus*. ENGLISH SPARROW.—See Introduced Species.

179. *Pipilo erythrophthalmus*. TOWHEE.—May 24 to Sept.

Cardinalis cardinalis. CARDINAL.—Does not deserve enumeration.

180. *Zamelodia ludoviciana*. ROSE-BREASTED GROSBEAK.

Guiraca caerulea. BLUE GROSBEAK.—On such evidence should not be included.

181. *Passerina cyanea*. INDIGOBIRD.—May 24 to Sept.

182. *Piranga erythromelas*. SCARLET TANAGER.

Piranga rubra. SUMMER TANAGER.—A southern species for which there are no definite records.

183. *Progne subis*. PURPLE MARTIN.—A summer resident. Dr. C. S. Whiteside tells me that this and four following species beside the Chimney Swift roost from late June to September in enormous numbers on Gull or Cedar Island in Lake Champlain. May 1 to —.

184. *Petrochelidon lunifrons*. EAVE SWALLOW.—May 3 to —.

185. *Hirundo erythrogastra*. BARN SWALLOW.—Apr. 25 to —.

186. *Tachycineta bicolor*. WHITE-BREASTED SWALLOW.

187. *Clivicola riparia*. BANK SWALLOW.—Local. May 5 to —.

188. *Stelgidopteryx serripennis*. ROUGH-WINGED SWALLOW.—*White River Junction*, pair noted, J. N. Clark (Auk, 1902, p. 93). *West Danville*, June 11, 1901, Clark.

189. *Ampelis cedrorum*. CEDARBIRD.—A summer resident. Occasional in winter in southern Vermont.

190. *Ampelis garrulus*. BOHEMIAN WAXWING.—A rare straggler from the north. The only definite instances are, *Burlington*, flocks Nov. 25, 1882 and Jan. 21, 1883, F. H. Herrick. *St. Albans*, Februarys, 1898 and 1899, flocks, Woodworth.

191. *Lanius borealis*. NORTHERN SHRIKE.—Not known to breed within the United States.

Lanius ludovicianus. **LOGGERHEAD SHRIKE**.—This and the following species are here synonymous with *L. l. migrans*.

Lanius ludovicianus excubitorides. **WHITE-RUMPED SHRIKE**.

192. *Lanius ludovicianus migrans*. **MIGRANT SHRIKE**.—A local summer resident. Nested at Rutland, 1878, and Mr. Ross reports eight pairs breeding within eight miles of the city. Castleton, 1876 (Proc. B. S. N. H. Vol. XX, 1879, pp. 263, 266-7), Brandon 1881, Cornwall in 1889 (O. & O. Vol. XIV, 89, p. 150, Parkhill), Stowe, 1896-7-8, Straw (Howell, Auk, 1901, p. 343). Reported from Townshend on March 3, 1893, Evans.

193. *Vireo olivaceus*. **RED-EYED VIREO**.

194. *Vireo philadelphia*. **PHILADELPHIA VIREO**.—There are only two definite records, *Pittsford*, a female taken Sept. 11, 1889, F. H. Hitchcock (Auk, 1890, p. 403). *Bread Loaf*, Addison Co. ♂ taken Sept. 19, 1900, C. B. Isham (Auk, 1902, p. 88).

195. *Vireo gilvus*. **WARBLING VIREO**.—The distribution of this and the following species is uncertain. Reported from East Bethel, Stowe, Ludlow, and Vergennes, Londonderry, June, '95, F. H. Allen, St. Albans, St. Johnsbury, Rutland, Townshend, and Johnson.

196. *Vireo flavifrons*. **YELLOW-THROATED VIREO**.—Rare. Reported from Windsor, Vergennes, St. Albans, Rutland, St. Johnsbury, Johnson and East Bethel.

197. *Vireo solitarius*. **SOLITARY VIREO**.—Not uncommon summer resident.

198. *Vireo noveboracensis*. **WHITE-EYED VIREO**.—*Townshend*, one taken spring 1893, Evans, only positive record I can secure. *St. Johnsbury*, May 5, 1900, Clark.(?)

199. *Mniotilta varia*. **BLACK AND WHITE CREEPER**.—Common.

Protonotaria citrea. **PROTHRONOTARY WARBLER**.—There are no records I consider positively authentic for this southern species.

200. *Helmitherus vermivorus*. **WORM-EATING WARBLER**.—There is one in the Edson collection taken at *St. Albans*.

Helminthophila pinus. **BLUE-WINGED WARBLER**.—These records need confirmation.

Helminthophila chrysoptera. **GOLDEN-WINGED WARBLER**.—No absolute record.

201. *Helminthophila rubricapilla*. **NASHVILLE WARBLER**.—Common.

202. *Helminthophila peregrina*. **TENNESSEE WARBLER**.—There is no definite data on this species, beyond it being reported by Evans at Townshend, where it is said to have remained summers 1899, 1900, and at Rutland by Ross.

203. *Compsothlypis americana usneæ*. **NORTHERN PARULA WARBLER**.

204. *Dendroeca tigrina*. **CAPE MAY WARBLER**.—A rare migrant. Mr. Ross assures me that in 1888 he positively identified parents feeding young on Mt. Killington.

205. *Dendroeca cærulescens*. **BLACK-THROATED BLUE WARBLER**.

206. *Dendroeca æstiva*. **YELLOW WARBLER**.—Of peculiar distribution ;

found along the streams and on the islands in Lake Champlain. Rare in northern Vermont.

207. *Dendroeca coronata*. YELLOW-RUMPED WARBLER.—Wintering, records need confirmation. Nests on Mt. Mansfield.—to Oct. 16.

208. *Dendroeca maculosa*. BLACK AND YELLOW WARBLER.—Common.

209. *Dendroeca pennsylvanica*. CHESTNUT-SIDED WARBLER.—Common if not abundant.

210. *Dendroeca castanea*. BAY-BREASTED WARBLER.—Reported at Townshend summer 1901, though not actually found breeding, Evans.

211. *Dendroeca striata*. BLACK-POLL WARBLER.—Breeds on Mt. Mansfield, Killington, Stratton, June 1895, F. H. Allen.

212. *Dendroeca blackburniæ*.—BLACKBURNIAN WARBLER.

Dendroeca dominica. YELLOW-THROATED WARBLER.—Dr. Cutting records shooting one in *Lunenburg* 1878. Until another capture is made the species should be left unenumerated.

213. *Dendroeca virens*. BLACK-THROATED GREEN WARBLER.

214. *Dendroeca vigorsii*. PINE WARBLER.—A very local summer resident. Mr. Evans writes me he has only seen one at Townshend. Saxton's river, Bellows Fall, R. Hoffmann. Bradford, not rare in 1895, Mrs. S. A. Hubbard.

215. *Dendroeca palmarum*. PALM WARBLER.

216. *Dendroeca palmarum hypochrysea*. YELLOW PALM WARBLER.

Dendroeca discolor. PRAIRIE WARBLER.—The only record for the State is one said to have been taken in *Uxbridge*, Dec. 4, 1884, A. R. Taft (Rand. Notes, Vol. II, 1885, p. 15).

217. *Siurus aurocapillus*. OVENBIRD.—Common.

218. *Siurus noveboracensis*. WATER THRUSH.—Confined as a summer resident to northern Vermont.

Geothlypis formosa. KENTUCKY WARBLER.—One said to have been "noted" at Taftsville, July 19, 1885, C. O. Tracy, (O. & O., Vol. X, 1885, p. 10).

219. *Geothlypis agilis*. CONNECTICUT WARBLER.—Nesting needs confirmation. Not uncommon autumn migrant. Mr. Ross writes me Prof. Perkins misquoted him; he referred to *G. philadelphia* as a rare summer resident. One spring instance, Rutland, April 24, 1879, Herrick, which must be doubted, Sept. 30.

220. *Geothlypis philadelphia*. MOURNING WARBLER.—A not uncommon summer resident as far south as Londonderry and Townshend. — to Sept. 20.

221. *Geothlypis trichas brachidactyla*. NORTHERN MARYLAND-THROAT.

222. *Icteria virens*. YELLOW-BREASTED CHAT.—Summer resident in southernmost Vermont. Pownall, June 16, 1896. W. Faxon & Hoffmann.

Wilsonia mitrata. HOODED WARBLER.—Record needs confirmation.

223. *Wilsonia pusilla*. WILSON'S WARBLER.—Probably only a migrant: not uncommon. Aug. 24 to —.

- 224. *Wilsonia canadensis*. CANADIAN WARBLER.—Common.
- 225. *Setophaga ruticilla*. REDSTART.—Common.
- 226. *Anthus pennsilvanicus*. PIPIT.
- 227. *Mimus polyglottos*. MOCKINGBIRD.—Accidental from the south.
- 228. *Galeoscoptes carolinensis*. CATBIRD.
- 229. *Harporrhynchus rufus*. BROWN THRASHER.

Thryothorus ludovicianus. CAROLINA WREN.—No definite record. Bennington?, Cutting.

- 230. *Hylemathous ædon*. HOUSE WREN.

231. *Troglodytes hiemalis*. WINTER WREN.—Not uncommon summer resident in the mountainous regions. I took one at West Bridge-water on Dec. 30, 1901.

- 232. *Cistothorus palustris*. LONG-BILLED MARSH WREN.

2 3. *Certhia familiaris americana*. BROWN CREEPER.—Not uncommonly met with in winter.

- 234. *Sitta carolinensis*. WHITE-BREASTED NUTHATCH.

235. *Sitta canadensis*. CANADA NUTHATCH.—Breeds not uncommonly.

Parus bicolor. TUFTED TITMOUSE.—An evident error. A southern species.

236. *Parus hudsonicus*. HUDSONIAN CHICKADEE.—A winter visitant and resident. It has been found breeding at Sutton (Faxon, Auk, 1890, p. 407-8), at Mt. Stratton, June, 1895, Allen, and was included in Thompson's 1842 List.

- 237. *Parus atricapillus*. CHICKADEE.

- 238. *Regulus satrapa*. GOLDEN-CROWNED KINGLET.—Breeds.

239. *Regulus calendula*. RUBY-CROWNED KINGLET.—Has never been known to breed in the State, Mr. Ross writes me his reporting it to Prof. Perkins as a summer resident was an error.

Poliophtila cærulea. BLUE GRAY GNATCATCHER.—Included by Dr. Cutting on no definite record.

240. *Hylocichla mustelina*. WOOD THRUSH.—Locally not uncommon. May 10 to —.

241. *Hylocichla fuscescens*. WILSON'S THRUSH. Very common. (April 14) — to —.

242. *Hylocichla aliciæ*. ALICE'S THRUSH.—Only a migrant, does not breed within the United States.

243. *Hylocichla aliciæ bicknelli*. BICKNELL'S THRUSH.—Breeds on Mt. Mansfield, Jay Peak, Mt. Killington, and Pico Peak, and undoubtedly on Mt. Annanance and other peaks over 3,000 feet.

244. *Hylocichla ustulata swainsonii*. OLIVE-BACKED THRUSH.—Breeds only in mountainous regions.

- 245. *Hylocichla guttata pallasii*. HERMIT THRUSH.—Londonderry.

- 246. *Merula migratoria*. AMERICAN ROBIN.—Mar. 16 to —.

- 247. *Sialia sialis*. BLUEBIRD.—Mar. 26 to Oct. 16.

EXTIRPATED SPECIES.

1. *Meleagris gallapavo*. WILD TURKEY.
2. *Grus americanus*. WHOOPING CRANE.
3. *Grus mexicanus*. SANDHILL CRANE.

INTRODUCED SPECIES.*

4. *Colinus virginianus*. BOB-WHITE. — Introduced from Tennessee and the West.

1. *Pediocetes phasianellus*. SHARP-TAILED GROUSE.
2. *Phasianus torquatus*. RING-NECKED PHEASANT. — This is the species, commonly introduced.
3. *Tetraogallus capercialli*. CAPERCIALLI.
4. *Tetrao tetrix*. BLACK GAME.
5. *Passer domesticus*. ENGLISH SPARROW.

RECAPITULATION.

Species, 220	}	247
Subspecies, 27		
Extirpated Species		3
Introduced Species		5
Total, 255. 'Total Prof. Perkins' List		266
Species added, 14	}	16
Subspecies added, 2		
New species mentioned but not enumerated		11
Species expunged, 27	}	30
Subspecies expunged, 3		

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My thanks are especially due to Prof. Perkins for much kind aid and also to Drs. Walter Faxon and G. S. Whiteside, Messrs. F. H. Allen, G. H. Ross, A. P. Howell, J. B. Ham, C. H. Evans, R. Hoffmann, Miss M. E. Ide, Mrs. Nelly Hart Woodworth and others.

ERRATA.

19. *Phalacrocorax auritus*.—The bird recorded from Windsor was taken on the Connecticut River at Hartland in October, 1897.

61. *Recurvirostra americana*.—Mr. Edson writes me a pair with young came to St. Albans with Yellow-legs and Golden Plover in the autumn of 1875. He also mentions the species as occurring in 1890.

110. *Cryptoglaux t. richardsonii*.—Mr. Brewster writes me that the specimen recorded here from Windsor was taken in Cornish, N. H., in the autumn or early winter about 1890.

200. *Helmitherus vermivorus*.—The St. Albans specimen was shot by J. N. Gorron in 1891.

245. *Hylocichla guttata pallasii*, read *Hylocichla guttata pallasii*.

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