

A-C [ark]

1904

HARVARD UNIVERSITY.



LIBRARY

OF THE

MUSEUM OF COMPARATIVE ZOOLOGY.

36485.

GIFT OF

*Outram Bangs.*

*January 2, 1911.*

JAN 2 1911

36,485

---

---

IMPERIAL DEPARTMENT OF AGRICULTURE  
FOR THE WEST INDIES.



The Birds of St. Vincent.

BY

AUSTIN H. CLARKE.

---

REPRINTED FROM THE WEST INDIAN BULLETIN, VOL. V, no. 1, pp. 75-95.

Sm 1904.

---

---



[Reprinted from 'West Indian Bulletin' Vol. V.]

## THE BIRDS OF ST. VINCENT.

### INTRODUCTION.

In continuation of the articles that have appeared in the *West Indian Bulletin* on the birds of Barbados (Vol. III, pp. 333-35, and Vol. IV, pp. 136-44) it is now proposed to publish information in respect of the interesting bird-life of St. Vincent.

It is desirable, however, to give, beforehand, a brief description of the island, the extent of the forest land, its configuration, soil and climate.

The following account of St. Vincent is taken from the *Kew Bulletin* (1893, pp. 231-34):—

St. Vincent is one of the group of islands known in the West Indies as the Colony of the Windward Islands. The other members of this group are St. Lucia, 21 miles to the north, and Grenada, 68 miles to the south-west. Barbados, under a separate Government, is 100 miles due east.

St. Vincent was discovered by Columbus on January 22, 1498. It is situated in 13° 10' north latitude and 60° 57' west longitude. It is 18 miles in length and 11 in breadth, and contains, according to the *Colonial Office List*, nearly 85,000 acres of land, about half the area of Middlesex, with only 13,000 acres under permanent cultivation. The population in 1891 was 41,054. The majority of the adjoining islets, known as the Grenadines, are dependencies of St. Vincent. The following account of these is taken from the excellent 'Historical Geography of the Colonies,' by Mr. C. P. Lucas, C.B., of the Colonial Office:—'These dependencies contained at the last census a population of 2,691, the largest of them being Bequia, the next largest Union Island and Cannouan. Bequia is less than 9 miles to the south of St. Vincent. It is of irregular shape, long and narrow, running from north-east to south-west, and it has an area of about 6 square miles. Its principal bay is Admiralty Bay on the western side. It is badly watered, and perhaps hardly deserves the old account given of it in the history of the Caribby Islands, that "it would be fruitful enough, if it were cultivated," for but little

sugar or other products are now grown here, and the main attraction of the island is its game. Père Labat states that in his time Bequia contained dangerous snakes, and was for that reason called Little Martinique, though, as he says, it might equally well for the same reason have been christened Little St. Lucia.' (pp. 220-1.)

According to Bryan Edwards (*Hist. West Indies*, I., p. 405), the area of the several islands in the Grenadines is as follows:— Bequia, 3,700 acres; Union, 2,150 acres; Cannouan, 1,777 acres; and Mustique, about 1,200 acres.

The following particulars of the physical condition of St. Vincent are taken from a *Sketch of the Colony* prepared by Mr. T. B. C. Musgrave for the Jamaica Exhibition, 1891:—

'The geological formation of St. Vincent is volcanic, all the rocks of the island indicating that origin. So recently as in 1812 the "Soufrière," a mountain at the north end of the island, 4,048 feet high, broke out in eruption and overwhelmed much of the surrounding country with scoria and ashes; a deep crater was then formed, closely adjoining one of still larger dimensions, the result of an eruption at a period more remote. At the bottom of the older crater, some 1,600 feet down, is a small lake about a mile in diameter. The water appears impregnated with sulphur and occasionally emits offensive though invisible fumes.

'A central backbone of mountainous country varying in height from 2,000 to 4,000 feet, and densely wooded, traverses St. Vincent from north to south. Rocky and wooded spurs run down to the sea on the west or leeward coast of the island. The east or windward coast, especially towards the north end of the island, in the Carib country, affords much more level land.

'The Carib country is a broad and fertile tract sloping gently backwards from the sea, for a distance of some 4 miles, to the base of the hills of the central mountain range which then rises abruptly and culminates in the Soufrière. It derives its name from having, upwards of a century ago, been allotted to the aborigines of the island for their occupation.

'The Soufrière forms the northern end of this mountain range. Next to it is the Morne Agarou, having an elevation of over 4,000 feet. Mount St. Andrew, about 2,500 feet, forms the southern extremity, and dominates the Kingstown valley.

'The valleys are fertile and well watered, with fine streams running through them, which turn the different water mills. These streams, in the dry season, comparatively small, swell into raging torrents after heavy rains. The windward slopes of the Soufrière range are drained by a channel called the Dry River, which runs through the Carib country, and which from its peculiarity deserves notice.

'Before the eruption of the Soufrière in 1812, a stream of average size filled this, now dry, watercourse, and emptied itself into the sea. During the eruption, the channel of the stream was completely filled and choked with scoria, rocks, and gravel, underneath which the water now, in ordinary times,

disappears some distance before it reaches the coast, and finds its way to the sea. In floods, however, the water comes down with singular force and volume, filling the rocky bed, which is 200 yards across, where the highway passes it from bank to bank. The water is described as advancing in huge waves, like the "bore" of a tideway. On these occasions it is very destructive, and it has already washed away many acres of cane land on its right bank.'

The slopes of the higher mountains are scored with deep ravines, and during the rainy season white clouds hover over them day and night. Here the vegetation partakes largely of an arboreal character, with an abundant undergrowth of ferns, and on the margins and banks of streams, species of *Scitamineae*, *Aroideae*, *Cyperaceae*, and some palms. Of tree ferns there are four species of *Cyathea*, two species of *Hemitelia*, and three species of *Alsophila*. At all elevations on mountain slopes are numerous open glades, showing the sites of former cultivation—the provision grounds of the natives—that have become covered with coarse grasses and dry-loving ferns. The characteristic fern of such localities is *Gleichenia*.

In the lowlands, in valleys and on easy slopes, the original vegetation has been for the most part cleared for the cultivation of sugar-cane, arrowroot and other plants. On rocky cliffs are found numerous bushes and trees of stunted growth, some of them overhanging the sea. With these are an *Agave* and *Bromeliaceae*.

St. Vincent is singularly free from swamps. Hence, there is nowhere any large extent of the tangled vegetation so characteristic of swampy districts in the tropics. The mangrove trees are only sparingly distributed. The manchineel tree (*Hippomane Mancinella*) and the sea-side grape (*Coccoloba uvifera*) are found on sea beaches.

'The climate is, of course, tropical. The temperature is singularly equable and averages between 75° and 85° degrees. It is tempered by the N. E. trade winds during nine months of the year. During the months of August, September and October, the winds become variable, and not infrequently veer to the south or south-west. Hurricanes or heavy gales are rare. St. Vincent is one of the most healthy islands of the West Indies. The slope of the land causes a natural drainage, and there are no swamps or marshes.'

In 1890, the Assistant Director of the Royal Gardens [now Imperial Commissioner of Agriculture for the West Indies] visited St. Vincent during a term of inspection throughout the West Indies, made at the instance of the Secretary of State. His report, which embodies many particulars regarding its present economic position, will be found in the *Kew Bulletin* for 1890 (pp. 140-5).

In the last century St. Vincent was remarkable for possessing the first Botanic Garden (founded 1765), certainly in the West Indies, and perhaps in any tropical part of the world. An account of this garden is given in the *Kew Bulletin* for

1892, (pp. 92-100). It lingered on with a precarious existence till the end of the first quarter of the present century. In 1890, it was revived as one of the system of botanical stations established in the West Indies.

The scientific knowledge of the flora of St. Vincent was limited to the present time to the species enumerated in Grisebach's 'Flora of the British West India Islands' (1864). He relied upon a collection made by the Rev. Lansdown Guilding, preserved in the Kew Herbarium. As will be seen, the fact that these specimens were in every case actually derived from the island is not free from doubt. Besides these Grisebach also worked up some other plants in the Kew Herbarium collected by Alexander Anderson, the second Superintendent of the old Botanic Garden, of whom some particulars are given in the *Kew Bulletin* for 1892 (pp. 94-5), also by George Caley, one of Anderson's successors (*Kew Bulletin*, l.c., p. 97).

These data supplied at first a very imperfect idea of the total flora. It was obviously, therefore, desirable to take advantage of any opportunity for completing the botanical exploration of the island. In 1889, Mr. F. Ducane Godman, F.R.S., to whom the scientific world is indebted for the munificent investigation of the natural history of Central America, determined to send a zoological collector to St. Vincent. Mr. H. H. Smith, a native of the United States, and an expert of known skill and experience, was engaged. He was accompanied by his wife, and Mr. Godman, thinking that they might also do some useful work for botany, persuaded them after a visit to Kew to undertake the task. On arriving at St. Vincent they ultimately engaged as assistant in botanical collecting Mr. G. W. Smith (now Police Magistrate for the Northern District of Grenada).

The very copious collections made by the party during the years 1889 and 1890, at Mr. Godman's cost, were presented by him to the Royal Gardens. There is every reason to suppose that as far as it is practicable under such circumstances, they exhaust the actual flora so far as flowering plants and ferns are concerned. But there will be, doubtless, as even in our own country, always some additional harvest of species to be obtained by residents in the island, who can give their time to a closer investigation of its area. Mr. H. Powell, the Curator of the revived Botanic Garden, has done good service by sending additional collections since 1890.

As regards the arboreal vegetation of St. Vincent and the most prominent and valuable timber trees of the island, the most recent particulars are given in a *Report upon the Forests of St. Vincent* by E. D. M. Hooper, of the Indian Forest Department, published by the Colonial Office in 1886.

A report upon the fruits of the colony will be found in the *Kew Bulletin* for 1888 (pp. 187-8).

The position of the once flourishing but now somewhat decaying arrowroot industry is discussed in the *Kew Bulletin* for 1893 (pp. 191-204).



In recent years St. Vincent has been subject to several visitations that have affected the growth of vegetation and no doubt, also, seriously influenced the bird-life of the island.

On September 11, 1898, St. Vincent was overtaken by one of the most destructive hurricanes that has ever occurred in the West Indies. The centre of the storm passed over the island and almost entirely destroyed all the interior forests, as well as the fruit trees and crops on the cultivated lands round the coast. The number of birds was sensibly diminished, and it was feared that some of the rarer birds had either been killed or starved for want of food.

On May 7, 1902, occurred the first of the series of eruptions of the St. Vincent Soufrière. On this occasion the animal and vegetable life in the immediate neighbourhood of the Soufrière was destroyed and the pebbles and dust that fell in other parts of the island also caused much injury. Further volcanic eruptions, but of a less severe character, occurred on September 3 to 4, and October 15 to 16, 1902; and March 22, 1903.

As far as can be ascertained, no birds—not even the well-known Soufrière bird—have entirely disappeared. It is probable that with the favourable seasons of this and last year bird-life in St. Vincent, as well as at Barbados and elsewhere, will assume normal proportions.

The following is a list of the birds which occur in the colony of St. Vincent, that is, the species inhabiting the island of St. Vincent and the Grenadines as far as, but not including, Carriacou, prepared by Mr. Austin H. Clarke, of Harvard University, who has lately spent some time in these islands:—

#### NAMES.

The scientific names of the birds are given together with their local designations. In the case of such species as appear to be without any common name, I have given that in common use at Grenada; or, if the bird does not occur on that island, I have adopted an arbitrary name to fit the case. Some of the local names are commonly used to include two or more different species. For instance, the word 'grieve' is applied to *Merula nigristrostris*, *Merula gymnophthalma*, and *Margarops montanus*; 'blackbird' is used for both *Certhiola atrata* and *Quiscalus luminosus*. In such cases I have selected one bird to be referred to under that title, and have called the others by alternative names, if there are such in common use, or have borrowed the local Grenada titles. In the case of such birds as visit the colony from North America, I have given the names which they bear in the United States and Canada as determined by the American Ornithologists' Union. These names have now become definitely fixed in America, and the birds are always referred to under them in all modern ornithological notes in that country. This refers particularly to the shore birds (curlews, plovers, sandpipers, etc.). Where (as in the case of the chicken hawk or sea hawk) a bird is common enough here to have received a distinctive local designation, that is given first and the American name after it.

## NAMES OF SHORE BIRDS.

With the shore birds I have followed the American name with that in use in Barbados, as given by Col. Feilden in his 'Birds of Barbados' (*West Indian Bulletin*, Vol. III, p. 333), for the benefit of those who may be acquainted with the species in Barbados.

## FOREIGN BIRDS INCLUDED IN THE LIST.

The list includes, in addition to the birds known to inhabit the colony, certain species, especially among the shore birds, which have never been obtained here, but which have been proved to occur on neighbouring islands, (Grenada, certain Grenadines, St. Lucia, or Barbados) and which may visit the island at any time. These are such species as pass through the West Indies on their way to and from North America, and are of erratic and uncertain occurrence on any one island.

## LOCAL DISTRIBUTION.

Certain of the birds inhabit only the Island of St. Vincent while some are found only on certain of the Keys. For example, *Myiadestes sibilans* does not occur in the smaller islands, while *Ortalia ruficauda*, the cocorico, is restricted, as regards this colony, to two of the Grenadines. I have omitted to state the local distribution of the different species, as by so doing I should be depriving those who wish to make a study of the birds here, of the chance of making most interesting personal observations.

## THE LIST NOT A CRITICAL SCIENTIFIC ENUMERATION.

This list is intended as a guide to the study of the natural birds in this colony, and as an aid in protective legislation. It is not, in any sense, a scientific enumeration of the birds of St. Vincent, including, as explained, a number of species which have never been taken here. It cannot therefore be regarded in the same light as Mr. Well's 'Birds of Grenada,' or 'Birds of Carriacou,' or Col. Feilden's 'Birds of Barbados.' The preparation of a critical paper on the avifauna of any country, district or island necessitates ready access to a well-stocked ornithological library, which is impossible for any person residing in the Windward Islands; but for the use for which it is intended this list will, I hope, be found to serve its purpose.

## DESCRIPTIONS GIVEN.

In the case of the land birds, the length from the tip of the bill to the end of the tail is given, to facilitate identification. For instance, there are three birds here, *Certhiola atrata*, the St. Vincent Blackbird, *Quiscalus luminosus*, the Bequia Sweet, and *Crotophaga ani*, the Tick bird, which are all black in colour; but confusion is avoided when their relative sizes, 4 inches,  $10\frac{1}{2}$  inches and  $12\frac{1}{4}$  inches, are understood.

*Length* : The length is that of a bird perched normally on a limb, with its head not extended. A little practice will enable one to judge pretty accurately the size of a bird at sight. In the case of the sea birds, which are difficult to judge

in this way, I have adopted a plan of comparative sizes, which, when taken in connexion with the colours, will, I think, be found sufficient for their determination.

*Colour* : In the matter of coloration I have not gone into detail, but the descriptions given will be found to be ample.

## GAME BIRDS.

### ENUMERATION.

The birds of this colony which may be classed as game birds are—(1) the visiting shore birds (curlews, plovers, etc.) which pass through here on their migrations; (2) the larger native doves; (3) the parrot; (4) the cocórico; and (5) the quail.

### THE SHORE BIRDS.

None of these birds are natives of the Windward Islands, most of them breeding in the far north. Those found on these shores during migrations are so small a percentage of the whole, and their stay is, as a rule, so short, that there seems to me to be no occasion for according them any protection at all.

*Cause of decrease* : Some species are, it is true, being seriously reduced in numbers; but this is without doubt due to the reckless shooting of the birds in the spring on or near their breeding grounds in the north. There is little reason to think that the comparatively insignificant number killed here each year could have any permanent effect on the species. In respect to these birds, therefore, there is no cause to alter the present law.

### DOVES.

*The larger native doves* : This is meant to include the Sea-side Dove (*Zenaida martinicana*), the Mountain Dove (*Zenaida zenaida*) and the Ramier (*Columba corensis*). From what I have seen I am of the opinion that the existing law is very satisfactory, as these birds are relatively abundant.

### THE PARROT.

Notwithstanding reports to the contrary, this bird is not at all abundant, being at the present time restricted to a comparatively small area in the centre of the island: and even there, it is not to be found in any numbers. In dealing with a bird of this kind it must be borne in mind that they are very restless, very noisy, and of such a size as to be quickly noticed: so that, if there be a parrot in the vicinity, one will soon become acquainted with the fact. As it will probably keep flying about, back and forth, one may easily fall into the error of supposing that there is a considerable number of parrots about; but if one can distinguish that particular one in any way, by a gap in one or both wings, or in the tail, one will, on watching closely, soon discover the mistake. This fact I have proved myself.

*Importance of this species* : As this particular species is peculiar to the island of St. Vincent, being wholly different from all others occurring in the West Indies, its extermination would

mean not only the loss of a valuable game bird to St. Vincent, but it would deprive the West Indies of one of their greatest ornithological curiosities, and America of one of its finest birds.

*Reasons why parrots are easily killed out* : There are two facts which make parrots easy to kill out: first, they feed at different seasons on particular fruits, and can then be obtained with little difficulty by simply stationing oneself within gunshot of a favourite feeding-tree: in the second place, they are very sympathetic birds, and if one in a flock be wounded, often the others will stay by it until they are all killed. I have seen the disastrous results of this habit in South America.

*Extinct Parrots* : To show that parrots are very liable to become extinct, particularly species confined to islands, I will call to mind a few cases. In the West Indies, Martinique and Guadeloupe used to have, according to M. Guyon, six species, none of which are now known. Jamaica until fairly recent years had a very fine macaw. The handsome Cuban macaw (*Ara tricolor*) is practically extinct, though by some said still to linger in certain of the swamps of Cuba. In the East Indies, the Philip Island parrot (*Nestor productus*) and its near ally the Norfolk Island parrot (*Nestor norfolcensis*) have disappeared, together with a parrakeet (*Palaeornis exsul*) from Rodriguez. In North America, the Carolina parrakeet (*Conurus carolinensis*) originally occurred from Indiana southward to the Gulf of Mexico. It is now confined to a few swamps on the gulf coast, where it is not at all common.

*Conclusion* : I think the foregoing shows the advisability of affording strict protection to the St. Vincent parrot until such time as he can be considered at least fairly abundant.

*Penalty for killing parrots* : In regard to the penalty attached to the infringement of the game laws, this should be made especially heavy in regard to the parrot, or the case might arise (analogous to what has happened in other places) in which a dead parrot might bring enough to cover the fine and yet yield a profit. The present law of Bermuda provides a penalty of £10 for killing a Long-tail or Tropic Bird (*Phaethon flavirostris*), practically the only sea bird now breeding in Bermuda. The result is, of course, perfect immunity, and the species is abundant. It seems to me that some such fine should be imposed for the illegal killing of this parrot, which is a more interesting, as well as much more beautiful, bird than this common and widely distributed sea-fowl.\*

#### COCORICO.

This bird appears to be well established, and is in no danger of extermination in the islands on which it occurs. As

---

\* According to Mr. Henry Powell (February 22, 1904), 'At the Zoological Gardens, London, there is a solitary St. Vincent parrot, and that was presented by the Earl of Balcarras who obtained it direct from St. Vincent. No specimen of this parrot exists at the Cromwell Road Museum, nor at Marseilles, where the collection of birds in general and the method of mounting them are considered especially good.'

We understand that recently five specimens of this rare parrot were killed for a collector! [Ed. W.I.B.].

it is not a native, and is abundant in Tobago and on the continent, if it should be accidentally killed out, a new lot could be readily imported. There seems to be no necessity for legislation of any kind as far as this bird is concerned.

#### QUAIL.

Like the preceding, this is not a West Indian bird. It would be best, I think, to leave its fate in the hands of those upon whose estates it occurs, as, if it were killed out, it could be easily re-introduced.

#### PROTECTION OF SEA BIRDS.

*Danger of killing on breeding grounds:* In regard to the sea birds of this colony, they are not the subject of appreciable persecution at any time, and they are fairly abundant. So long as their breeding grounds are undisturbed, the few usually killed away from them should make no difference in their economy. Wholesale destruction of their eggs and young, however, would soon either kill out the birds, or drive them away. I will cite a few cases in support of this.

*Locally extinct species:* In the early days of Bermuda, the people were more or less dependant on a certain sea-fowl known to them as the 'cabouse.' This bird was closely related to, if not identical with, the Diablotin (*Puffinus auduboni*). It was killed by hundreds on the islands on which it bred, with the result that it soon disappeared. Another West Indian bird, closely related to the 'cabouse,' has been killed out of several of the islands. I refer, of course, to the Burrowing Petrel (*Aestrelata hasitata*) known in some of the islands as the 'diablotin.' Owing to constant persecution, the sea birds breeding on the coast of New England became alarmingly reduced in numbers, some species, in fact, almost, if not quite, disappearing. Of late years, however, they have been strictly protected, a warden being stationed in the more important colonies, with the result that they are now showing a definite increase. I give these instances, not because of any immediate danger to the sea-fowl here, but simply to show what might happen if, when serious reduction in numbers were imminent, the matter were not at once taken up.

#### THE CHICKEN HAWK.

The common Chicken Hawk (*Buteo latissimus*) proves, on investigation, to be, perhaps, as much of a benefit to the agriculturist as it is a pest to the poultry raiser, since it subsists very largely on the mole cricket, sometimes as many as twenty or more being disposed of at one meal. It is not at all rare to find an insectivorous diet among the smaller hawks: as examples, I may mention the Florida representative of the West Indian Kili-hawk (*Falco caribbaearum*), which is known to exist mainly on grass-hoppers, and the Margarita Kili-kili which, according to Captain Robinson, lives upon the same pests. It appears, therefore, that if it be considered unwise to protect this bird, at least no bounties or rewards should be offered to aid in its destruction.

## PROTECTION OF THE SMALL BIRDS.

The spirit of the existing law affords suitable protection for the small birds. In a law relating to birds of this class I am of the opinion that it is wise to make as few exceptions as possible, and if any be made, that they be of really injurious and manifestly undesirable species, and such as are well known to everyone, so that there can be no confusion; otherwise it will defeat the aim of the law in regard to species having a more or less close resemblance to those left unprotected. This is the case to-day in many of the American States, where certain definite birds (such as the English sparrow) are unprotected, and advantage is taken by small boys with air guns to kill any of a dozen or so species of the smaller and duller birds, which will pass as sparrows if they happen to encounter a police constable of average intellect in their wanderings. Thus in St. Vincent if the Grass bird were unprotected, the Blue Head (*Euphonia flavifrons*), Hen Red Breast (*Loxia noctis*) and Lady bird (*Vireo calidris*) might suffer; if the Bequia Sweet (*Quiscalus luminosus*), it might be injurious to the Tick bird (*Crotophaga ani*), etc.

## BOOKS ON LOCAL ORNITHOLOGY.

I have appended a list of such books and articles as would be of value to anyone interested in native birds. The list includes references to the literature on the birds of the Windward Islands, and is not confined exclusively to that of St. Vincent. The most useful books are perhaps Cory's 'Birds of the West Indies', and Ridgway's 'Birds of North and Middle America'. The former, while giving minute descriptions of the native birds, only mentions by the scientific name such North American species as regularly or occasionally visit this island. Thus, for these it would have to be used in connexion with some standard American work, such as Chapman's 'Birds of Eastern North America.' There are no local names given for the West Indian birds, but this will not be found to present any difficulty, if it be used in connexion with this list. Ridgway's book contains detailed and minute accounts of all the birds occurring in the West Indies, and is a most valuable book of reference, in fact, the best on the subject up to date.

The works mentioned may be obtained through the larger dealers in scientific books, such as Dulau & Co., London; List and Franke, Berlin, or Oswald Wiegel, Leipzig, who often have them on hand, either as separates, or in part of the volumes in which they occur. As practically all are out of print, there is no other way of getting hold of them.

## INTRODUCTION OF FOREIGN BIRDS.

One point I should like to bring up. It has been proved to be bad policy to introduce foreign birds or mammals into a country, except in the case of such as can be readily killed out if occasion requires it: that is, large herbivorous mammals, or game birds. Introduced species are liable to take on certain habits which render them obnoxious, however beneficial they may have been in their own country, and which it may be wholly impossible to foretell. To show to what an extent

change of habit may go, I will mention the case of the New Zealand Kea, a large parrot, which originally fed on vegetable products. Some time after the importation of sheep into the country, the Kea developed a propensity for eating their kidneys, and has proved to be a serious pest in consequence. This habit must be wholly of recent origin, for before the discovery of the island, New Zealand possessed no native mammals whatever. This is, of course, an extreme case, and I only cite it to show how sometimes a bird's habit will wholly change under new conditions.

In their own country, the animals and birds are kept in check by their natural enemies, parasites and diseases. If, then, we bring them into a new place, we are liable to find out that the results are not what was expected, while at the same time they may increase beyond our control. Of course, on the other hand, many, if not most, introduced species die out, being unable to meet the new conditions of life forced upon them.

As a few tangible bits of evidence are worth more than whole pages of theory, I will give a few cases in support of the foregoing.

The European House Sparrow (*Passer domesticus*) has been introduced into North America, Australia, New Zealand, Argentina, Mauritius, Comoro Islands, New Caledonia, Hawaii, Chatham Island, (*Ibis*, 1893), Bermuda, the Bahamas and Cuba, in practically all of which places it takes its place among the pests. In fact, it is by some considered in New Zealand to be second only to the rabbit. (*Report, New Zealand Department of Agriculture*, 1897.)

The Starling (*Sturnus vulgaris*) would appear to be rather an aid to agriculture than otherwise; for Mr. John Gilmorn has shown (*Trans. Highland and Agricultural Society*, Scotland, 1896) that its food consists in England of 75 per cent. insects, 20 per cent. grain (mainly waste), and 5 per cent. miscellaneous food. After its introduction into New Zealand, however, it adopted largely a fruit diet, and has therefore become a great nuisance. (*Producers' Gazette*, Western Australia, January 1898.) In Tasmania also it feeds largely on small fruit, cherries, and wheat. (*Agricultural Gazette*, Tasmania, November 1897, and January 1898.)

The Nima (*Acridotheres tristis*), an Indian bird, something like the Bequia Sweet (*Quiscalus luminosus*), has been introduced into Mauritius (Jerden, 'Birds of India,' 1863), Andamans, Hawaii, New Zealand, and Australia. It is proved (Finsch, *Ibis*, 1880) to drive away pigeons and fowls, and is said to destroy their eggs and nests.

I may also mention the case of the Skylark (*Alauda arvensis*), the Green Linnet (*Ligurinus chloris*), and the Black-bird (*Turdus merula*), which, although universally considered beneficial in England, have proved quite the reverse in New Zealand.

I think the foregoing tends to show the advisability of letting the native faunas of these islands alone; for no one can properly judge of the effects of a new bird or mammal on

them, or on the agricultural industry, until it is introduced, and then it is too late.

It seems, then, that it would be well to introduce into the Game Laws a clause prohibiting the importation of exotic birds or mammals, or at least requiring written statements from some acknowledged authority on the subject that they could not become obnoxious. Western Australia (*Jour. Bureau Agricultural*, December 10, 1895) and the United States have already taken the initiative in laws of this kind, while Cape Colony has gone as far as to exclude rabbits, and require that those kept in captivity be closely guarded.

#### LIST OF THE BIRDS OF ST. VINCENT.

1. *MERULA GYMNOPHALMA*. Yam Bird. Yellow-eyed Grieve.  
8½ inches. Dull olive brown, lighter below: naked skin, about eye yellow.
2. *MERULA NIGRIROSTRIS*. Grieve.  
9 inches. Brown, lighter below.
3. *MYIADESTES SIBILANS*. Soufrière Bird.  
7¼ inches. Nearly black: underparts gray, throat and belly orange rufous. White markings on inner nibs of tail and wing feathers.
4. *MARGAROPS MONTANUS*. Spotted Grieve.  
9¼ inches. Brown, belly white. Dull white markings on wings, tail feathers tipped with white, and white edgings to breast feathers.
5. *MIMUS GILVUS*. Mocking Bird.  
8¾ inches. Gray, white below. Tips of tail feathers and markings on wings, white.
6. *THRYOTHORUS MUSICUS*. Wall Bird. Wren.  
5 inches. Rusty brown, narrow black lines across wing and tail feathers. White below.
7. *CARTHAROPEGA BISHOPI*. Lesser Soufrière Bird.  
5¼ inches. Back and band across breast, black. Circle about eye, throat, and belly, white.
8. *SEIURUS AUROCAPILLUS*. Oven Bird (U.S.).  
5½ inches. Olive green, lighter below. Centre of crown, dull orange, with a black line on each side.
9. *SEIURUS NAEVIUS*. Water Thrush (U.S.).  
5 inches. Brown above, underparts and line over eye, white.
10. *CERTHIOLA SACCHARINA*. Mistletoe-bird.  
4 inches. Dark-slaty above, underparts and lower back bright yellow; white line over eye, and white patch on wing.
11. *CERTHIOLA ATRATA*. St. Vincent Blackbird.  
4 inches. Black.
12. *PROGNE DOMINICENSIS*. West Indian Martin.  
7 inches. Steel blue; middle of breast and belly, white.
13. *PETROCHELIDON FULVA*. Eave Swallow.  
4¾ inches. Back and top of head bluish black. Forehead



and lower back, dark rufous brown. Underparts light brownish and white.

14. VIREO CALIDRIS. Lady Bird.

$5\frac{3}{4}$  inches. Olive green, lighter below : top of head grayish. Dark stripe through eye, and light stripe over it.

15. EUPHONIA FLAVIFRONS. Blue Head.

$4\frac{1}{2}$  inches. Bright green, lighter and duller below. Top of head bright blue, forehead orange.

16. CALLISTE VERSICOLOR. Golden Tanager.

6 inches. Bright red-gold, appearing yellow, red, or green in different lights. Top of head chestnut : wings and tail dark green.

*Female*. Same, but back green, and top of head pale chestnut.

17. LOXIGILLA NOCTIS. Red throat. Sparrow.

$4\frac{1}{2}$  inches. Black : throat and line over eye chestnut.

*Female*. Dull brown above, gray below.

18. TIARIS BICOLOR. Grass Bird.

4 inches. Olive green : breast, throat, and forehead black

*Female*. Olive green, lighter below.

19. QUISCALUS LUMINOSUS. Bequia Sweet.

$10\frac{1}{2}$  inches. Black. *Female*, grayish.

20. ELAINEA MARTINICA. Topknot. Flycatcher.

$6\frac{1}{2}$  inches. Brownish olive ; throat and breast grayish ; belly yellow, dirty white in middle line.

21. MYIARCHUS OBERI. Loggerhead.

$7\frac{3}{4}$  inches. Brown above, upper breast gray ; lower breast and belly, sulphur yellow.

22. TYRANNUS ROSTRATUS. Pipiri.

9 inches. Gray, white below : wings and tail dark brown.

23. CHAETURA BRACHYURA. Chimney Swift Swallow.

$4\frac{1}{4}$  inches. Very dark-brown ; tail and lower back gray. Never perches on branches of trees or wires ; roosts in hollow trees or chimneys.

24. EULAMPIS JUGULARIS. Red Throated Humming Bird.

$4\frac{1}{2}$  inches. Black ; wings and tail green ; throat and breast metallic red, known by its large size.

25. EULAMPIS HOLOSERIACEUS. Emerald Throated Humming Bird.

$4\frac{1}{4}$  inches. Green, brightest on throat ; blue patch on lower breast.

26. BELLONA CRISTATA. Crested Humming Bird.

$2\frac{3}{4}$  inches. Dull-green above, brown below ; head with pointed metallic green crest, *Female* dull green, gray below : no crest.

27. CROTOPHAGA ANI. Tick Bird.

$12\frac{1}{4}$  inches. Black beak very much arched.

28. *COCCYZUS MINOR*. Cuckoo-manioc.  
12 inches. Gray above, buff below: white tips to tail feathers.
29. *CERYLE ALCYON*. Kingfisher.  
9 inches. Blue-gray above, speckled with white; white below, with blue band across breast, head with large crest.  
*Female* with additional band on breast and sides, chestnut.
30. *AMAZONA GUILDINGI*. St. Vincent Parrot.  
19 inches. Yellow-brown above, reddish brown below; head blue; forehead white; wide band of yellow and orange on wing. Tail orange at base, yellow at tip, with wide band of blue across middle.
31. *STRIX NIGRESCENS*. Owl. Jumbie Bird.  
12 inches. Mottled brown, face reddish, buffy beneath, with small round black spots. Tail banded light and dark brownish. Ends of face feathers (ruff) dark red-brown. Iris chocolate: bill white.
32. *BUTEO LATISSIMUS*. Chicken Hawk Broad-winged Hawk (U. S.).  
14 inches. Mottled brown above, light brown below, with dark markings on breast.
33. *URUBITINGA ANTHRACINA*. Black Hawk.  
24 inches. Slaty black, tail banded with white.
34. *FALCO PERIGRINUS ANATUM*. Duck Hawk.  
19 inches. Slaty gray above, dirty white below, with brown markings on breast. A powerful hawk, of great quickness and velocity on the wing. Seen about cliffs.
35. *COLUMBA CORENSIS*. Ramier.  
13½ inches. Slaty gray, head reddish-brown.
36. *ZENAIDA ZENAIDA*. Mountain Dove.  
10 inches. Brown above, lighter purplish brown below. Blue streak below ear. Feet red.
37. *ZENAIDA MARTINICANA*. Seaside Dove.  
10 inches. Brown above, dull bluish-white below. Lower back chestnut. Dark-blue line on cheek.
38. *COLUMBIGALLINA PASSERINA*. Ground Dove.  
6¼ inches. Dull-brown; spots of metallic purple on wings.
39. *ORTALDA RUFICAUDA*. Cocorico. Chachalaca (Mexico and United States). Guacharaca (Venezuela). Guan.  
24 inches. Olive-brown, head grayish.
40. *EUPSYCHORTYX SONNINII*. Quail.  
7½ inches. Above, mottled reddish-brown, buff, and black; tail slaty; breast, mottled grayish; rest of underparts, chestnut brown. Face white; crest and throat buff brown.
41. *ARDEA HERODIAS*. Gray Gauding. Great Blue Heron (United States).  
Mainly slaty gray, lighter below and streaked with white; readily known by its great size.

42. *ARDEA CANDIDISSIMA*. Large White Gauding.  
White; Known by its large size.
43. *ARDEA CAERULEA*. Blue Gauding. Little Blue Heron  
(United States). White Gauding.  
Rather small, slaty blue, neck reddish, young white.
44. *BUTORIDES VIRESCENS*. Gauding. Green Bittern (United  
States).  
Small, grayish green, neck reddish, with white stripe down  
front.
45. *PORZANA CAROLINA*. Sora Rail.  
Size of quail. Olive brown above, streaked with buff and  
greenish. Gray below; face black. Lives among mangrove  
roots and about branches.
46. *GALLINULA GALEATA*. Red seal Coot. Water Fowl. Florida  
Gallinule (U. S.).
47. *IONORNIS MARTINICA*. Purple Gallinule.  
Larger than preceding; green and dull purple, seal, white.  
Rare.
48. *FULICA AMERICANA*. White seal Coot. Coot (U. S.).  
Larger than two preceding; dull gray; white patch under  
tail.
49. *ANAS BOSCHAS*. Mallard (U. S. and England).  
Large Duck (Grenada). Large. Light brownish-gray,  
head bright green; breast chestnut, white collar about neck;  
belly dirty white. A few feathers just above tail curled up,  
and forwards.  
*Female*. Yellow-brown, streaked with lighter.
50. *QUERQUENDULA DISCORS*. Blue-winged Teal.  
Distinguished by small size and by having small feathers  
on wing blue.
51. *FREGATA AQUILA*. Man-o'-war Bird. Frigate Bird.  
Known by very large size, deeply forked tail, and long  
narrow wings. Colour, glossy black, young with white on  
breast.
52. *PELECANUS FUSCUS*. Brown Pelican.  
Very large and heavy. Long beak, with pouch beneath it  
Brown.
53. *SULA SULA*. Booby.  
Large, but considerably smaller than preceding. Brown  
above, breast gray. Lower breast and belly white. Bill  
yellow.
54. *SULA PISCATOR*. White Booby.  
Same size as preceding. White, with outer large feathers  
of wing, and most of small feathers dark grey.
55. *PHAETHON AETHEREUS*. Long-tail Tropic Bird (U. S.).  
Size of Chicken Hawk. White, black markings on wings.  
Middle tail feathers very long. Including these, the bird  
measures about 30 inches.

56. *LARUS ATRICELLA*. Laughing Gull. Black-headed Gull.  
Somewhat larger than preceding. Light gray above, white below. Head dark gray.
57. *STERNA MAXIMA*. Royal Tern.  
Larger than Tropic Bird. Tail deeply forked. Gray above, white below. Top of head black, with slight crest.
58. *STERNA ANOSTHAETUS*. Bridled Tern.  
Top of head black. Back dark gray, lighter toward neck. White below. Forehead and line over eye white. Tail forked. Smaller than the Royal Tern.
59. *STERNA FULIGINOSA*. Sooty Tern. Hurricane Bird.  
Size and general appearance of preceding, but uniform dark brown above, not lighter toward neck. White below, tail forked.
60. *STERNA DOUGALLI*. Roseate Tern.  
Small. Light gray above, white, with a tinge of pink below. Top of breast black. Tail very deeply forked.
61. *ANOUS STOLIDUS*. Noddy. Mwen.  
Size of Roseate Tern. Brown. Top of head light gray. Tail not forked.
62. *OCEANITES OCEANICUS*. Wilson's Petrel.  
Size of West Indian Martin (No. 12). Black, lower back white.
63. *PUFFINUS AUDUBONI*. Diablotin.  
Somewhat smaller than Tropic Bird (No. 55). Dark brown above, white below. Skims about near surface of water: nests in holes.

## SHORE BIRDS.

64. *CHARADRIUS DOMINICUS*. Golden Plover.
65. *SQUATAROLA HELVETICA*. Black-billed Plover. White-tailed Plover. Loggerhead.
66. *ÆGIALITIS SEMIPALMATA*. Ring-Neck Plover.
67. *ARENARIA INTERPRES*. Turnstone (U.S. and England). Calico Bird. Rock Plover. Sandy Plover.
68. *HINIANTOPUS MEXICANUS*. Black Neck Stilt.
69. *GALLINAGO DELICATA*. Snipe.
70. *MACRORHAMPHUS SCOLOPACEUS*. Dowitchu. Duckleg. Duck Bill (Barbados).
71. *MICROPALAMA HIMANTOPUS*. Stilt Sandpiper. Cue (Barbados).
72. *EREUNETES PUSILLUS*. Semipalmated Sandpiper. Small Sandpiper (Grenada). Grass Nit (Barbados).
73. *TRINGA MINUTILLA*. Least Sandpiper. Cockroach Nit (Barbados).
74. *TRINGA MACULATA*. Pectoral Sandpiper. October Chirps (Barbados). Grass Bird (Grenada).

75. *TRINGA FUSCICOLLIS*. Red necked Sandpiper. Grey Nit (Barbados).
76. *CALIDRIS ARENARIA*. Sanderling. Sandy Snipe (Barbados).
77. *SYMPHEMIA SEMIPALMATA*. Willet. White-tailed Curlew (Barbados).
78. *TOTANUS MELANOLEUCUS*. Greater Yellow Legs. Pika (Grenada and Barbados).
79. *TOTANUS FLAVIPES*. Lesser yellow Legs. Longlegs (Barbados).
80. *TOTANUS SOLITARIUS*. Solitary Sandpiper. Black-back (Barbados).
81. *ACTITIS MACULARIUS*. Spotted Sandpiper. Nit. Spotted Wag (Barbados).
82. *BARTRAMIA LONGICAUDA*. Upland Plover. Cotton-tree Plover (Barbados).
83. *NUMENIUS HUDSONICUS*. Hudsonian Curlew. Large Curlew. Crookbill Curlew.
84. *NUMENIUS BOREALIS*. Curlew. Chittering Curlew (Barbados).

## REFERENCES.

*St. Vincent.*

- Lawrence, Geo. M.—‘Catalogue of the Birds of St. Vincent,’ from collections made by Mr. Fred A. Ober, under the directions of the Smithsonian Institution, with his notes thereto.—(*Proceedings of the U. S. National Museum*, Vol. I, p. 232, 1878.)
- Lister, C. E.—‘Field Notes on the Birds of St. Vincent, West Indies.’—(*Ibis* for 1880, p. 381.)

*St. Lucia.*

- Allen, J. A.—‘List of the Birds of the Island of Santa Lucia, West Indies.’—(*Bulletin Nuttall Ornithological Club*, Vol. V, p. 163, 1880.)
- Selater, P. L.—‘On the Birds of the Island of Santa Lucia, West Indies.’—(*Proceedings of the Zoölogical Society* for 1876, p. 13.)

*Grenada.*

- Lawrence, Geo. M.—‘Catalogue of the Birds of Grenada,’ from a collection made by Mr. Fred A. Ober for the Smithsonian Institution, including others seen by him but not obtained.—(*Proceedings of the U. S. National Museum*, Vol. I, p. 265.)
- Wells, John Grant—‘A List of the Birds of Grenada.’ Grenada 1886.
- ‘List of the Birds of Grenada.’—(*Grenada Handbook*, 1904.)
- ‘List of the Birds of Carriacou.’—(*Grenada Handbook*, 1904.)

Wells, J. G. and Lawrence, Geo. N.—‘A List of the Birds of Grenada.’—(*Proceedings of the U. S. National Museum*, IX, p. 609, 1886.)

*West Indies.*

Cory, Chas. B.—‘A List of the Birds of the West Indies.’  
Boston, 1885; revised edition 1886.

—————‘The Birds of the West Indies; including all species known to occur in the Bahama Islands, the Greater Antilles, and the Lesser Antilles, excepting the Islands of Tobago and Trinidad.’ (Contains a fairly complete bibliography up to 1889.)

Boston, 1889.

(Previously appeared as a serial in *The Auk*, New York, 1886-1888.)

Bridgway Robert—‘The Birds of North and Middle America.’ (Includes the West Indies.)—now in course of publication, Vols. I and II being already out—(*Bulletin 50, U. S. National Museum, Washington.*)

ST. VINCENT.

ORDINANCE NO. 11 OF 1901.

*An Ordinance for the protection of certain Birds and Fishes.*

Be it enacted by the Governor with the advice and consent of the Legislative Council of St. Vincent, as follows:—

1. This Ordinance may be cited as ‘the Birds Short title and Fish Protection Ordinance, 1901.’

Offences against  
this Ordinance.

2. Any person who kills wounds or takes any bird or the eggs or nest of any bird specified in the first schedule to this Ordinance, or who has in his possession any such bird killed, wounded or taken, or any part thereof or the eggs or nest of any such bird taken after the passing of this Ordinance shall be guilty of an offence against this Ordinance.

Close season for  
birds, oysters  
and turtle.

3. There shall be a close season for each of the birds, enumerated in the second schedule to this Ordinance and for oysters and turtle. Such season shall, until another is appointed in lieu thereof in the manner hereinafter provided, be for birds, from March 1 to July 31, and for oysters and turtle from May 1 to August 31. *Provided* that the Governor may from time to time by notice in the *Gazette* appoint some other period or periods in lieu of the periods fixed as

aforesaid; and after any such appointment the period so appointed shall be the close season for the purposes of this Ordinance.

4. The Governor may from time to time by notice in the *Gazette* declare that as to any of the birds, enumerated in the second schedule, the provisions of the third section shall cease to apply and may from time to time vary or cancel any such alteration; and thereupon the provisions of the said section shall cease to apply or shall again apply (as the case may be) with such variations as by the Declaration may be provided; and the Governor, may also by notice as aforesaid declare as to any bird not enumerated in the said schedule that it shall from the date of the notice be deemed to be included in the said schedule for such close season as may be named in the notice as applicable to it and may from time to time alter or amend the notice in the same way as if the bird had been enumerated in the schedule and thereupon the bird shall to all intents and purposes be deemed to be included in the schedule for the close season assigned to it in the said notice.

Governor may declare provisions of 3rd. section not applicable to any of the birds enumerated in 2nd. schedule.

Governor may declare any bird not enumerated in schedule to be deemed to be included.

5. Except as hereinafter mentioned any person who shall kill, wound or take any of the birds enumerated in the second schedule to this Ordinance or any oysters or turtle during the close season for the same, or shall take the eggs or nest of any such bird, during the said season or shall have in his possession any such bird killed, wounded or taken or any eggs or nest taken as aforesaid or shall have in his possession any turtle or oyster during the close season for the same shall be guilty of an offence against this Ordinance.

Killing &c. of birds, fish and turtle during close season, offence against Ordinance.

6. Any person who shall take or destroy any turtle or turtle eggs on land, or shall have in his possession any such turtle or turtle eggs taken as aforesaid, shall be guilty of an offence against this Ordinance.

Absolute protection on land of turtle and turtle eggs.

7. Where any person shall have in his possession any bird, or any part of a bird, or the eggs of any bird specified in the first schedule to this Ordinance or any turtle or turtle eggs, or shall in any year after the third day of the commencement and before the end of the close season for any bird enumerated in the second schedule to this Ordinance or for turtle or oysters have in his possession any such bird, turtle or oysters or the eggs of any bird as aforesaid or any part thereof or shall in any year, after the third day after the commencement and before the end of the close season for turtle expose any turtle for sale, it shall be on him to show in answer to any charge

Onus of proof in certain cases to be on defendant.

made against him under this Ordinance, that the bird (being one of those enumerated in the first schedule) was killed, wounded or taken or that the turtle eggs were taken before the passing of this Ordinance, or out of the Colony, or that the bird (being one of those enumerated in the second schedule) or the turtle or oysters was or were killed, wounded or taken out of the Colony or before the commencement of the close season in which he has the bird or turtle or oysters in his possession.

Offence to purchase turtle of less than 20 lb. weight.

8. Any person who shall take, kill, sell or purchase a turtle of less weight than twenty pounds shall be guilty of an offence against this Ordinance.

Mode of dealing with person found offending,

9. Where any person is found offending against this Ordinance it shall be lawful for any other person to require him to give his name, description and place of abode; and if he does not truly give his name, description and place of abode, he shall be guilty of an offence against this Ordinance, and shall in addition to any other penalty to which he is liable under this Ordinance, incur a penalty not exceeding five pounds.

Offences against Ordinance punishable on summary conviction.

10. (1) Every person guilty of an offence under the provisions of this Ordinance shall on conviction before a magistrate be liable to a penalty not exceeding five pounds and in default to imprisonment with or without hard labour for any term not exceeding three months.

(2) All proceedings for the recovery of penalties shall subject to the provisions of this Ordinance be according to any Law for the time being in force respecting the procedure before justices or magistrates.

Half of penalty to go to informer.

11. Half of any fine imposed under this Ordinance shall go to the informer

Where offences may be heard.

12. Any offence against this Ordinance may be enquired of, heard and determined in any Police District.

Forfeiture of bird, &c., in respect of which a conviction takes place.

13. Any bird, fish, oyster, turtle, or turtle eggs, or any part thereof in respect of which a conviction takes place under this Ordinance shall be forfeited to His Majesty.

Governor may authorize killing of birds for scientific purposes.

14. Notwithstanding anything in this Ordinance, the Governor in Council may by writing under his hand for such time and subject to such conditions as he thinks fit authorize any person for scientific purposes to kill or take any bird enumerated in either of the schedules to this Ordinance or the eggs or nest of any such bird.



15. In any proceeding under this Ordinance the defendant may tender himself, and be examined as a witness in his own behalf, in the same way, and subject to the same rules as any other person. Defendant may tender himself as witness.

### FIRST SCHEDULE.

#### LOCAL AND OTHER NAMES.

Cuckoo—Manioc—Rain Bird  
 Flycatcher  
 Gauding—Grey  
 Gauding—Large Blue  
 Gauding—Small Blue  
 Gauding—Small Green  
 Gauding—White  
 Humming Bird, Crested—Doctor Bird  
 „ „ Green Throated  
 „ „ Ruby Throated  
 House wren  
 King Fisher  
 Mistletoe Bird—Yellow Breast  
 Mocking Bird  
 Molasses Bird  
 Pipperie—Crested  
 Pipperie—Hawk Beater  
 Redbreast  
 Redstart  
 Soufrière Bird  
 Tick Bird  
 Trembleur.

### SECOND SCHEDULE.

#### LOCAL AND OTHER NAMES.

Wild Pigeon or Ramier  
 Mountain Dove or Tourterelle  
 Ground Dove or Ortolan  
 Every other species of Wild Pigeon or Dove  
 Parrot  
 Quail.

---





---

V. GALE, PRINTER.

---

GAYLORD BROS.  
MAKERS  
SYRACUSE, - N.Y.  
PAT. JAN. 21, 1908



3 2044 107 223 158

