

naturalists, and possessed of a cheerful home to which I can retire, surrounded by my feathered favorites, I should most probably either have descended to an early grave, or been the habitual frequenter of the tobacco and dram shops. No; the country for me, before all the grandeur and pleasure of the town. Old Waterton once said to me, he would sooner be in the woods than in the finest palace in Europe.

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ART. VI. OBSERVATIONS ON THE SEA-BIRDS FREQUENTING THE COAST OF ST. MARGARET'S BAY, N. S. BY REV. JOHN AMBROSE.

[Read Jan'y 9, 1865.]

FOR the convenience of persons wishing to make enquiries of our fishermen, or desirous of obtaining specimens from them, I give the names by which they distinguish the sea-birds with which they are familiar, together with the scientific equivalents of those names, so far as I have been able to identify them :—

LOON—(*Colymbus glacialis.*)

SEA-DUCK—EIDER—(*Anas mollissima.*)

BOTTLE-NOSE DRAKE—KING EIDER—(*Fuligula spectabilis.*)

COOT, BLACK—COMMON SCOTER—(*Anas nigra.*)

COOT, BOTTLE-NOSE—SURF SCOTER—(*A. perspicillata.*)

PARROT—PUFFIN—(*Mormon fratercula.*)

MURR.

TURR.

LORD or IMP—HARLEQUIN DUCK—(*Anas histrionica.*)

COCKAWEE—LONG-TAILED DUCK—(*A. glacialis.*)

HAG-DOWN—MANX SHEARWATER—(*Procellaria Puffinus.*)

SHELL-DRAKE—(*Anas tadorna.*)

RED-BREASTED MERGANSER—(*Mergus serrator.*)

GREY DIPPER.

WHITE DIPPER.

BLACK DUCK—(*Anas boschas.*)

COMMON TEAL—(*Anas Crecca.*)

SEA PIGEON.

LITTLE AUK—ROTCHÉ—(*Uria minor.*)

STORM PETREL—(*Thalassidroma pelagica.*)

CANADA GOOSE—(*Anser Canadensis.*)

BRENT GOOSE—(*Anser brenta*.)

COMMON GANNET—(*Sula Alba*.)

SHAG—CORMORANT—(*Phalacrocorax cristatus*.)

SADDLE-BACK GULL—(*Larus Marinus*.)

LARGE GREY GULL.

MACKEREL GULL—(*L. argentatus*.)

WINTER GULL—(*L. leucopterus*.)

SEA GOOSE.

This list is by no means complete, as there are many birds less frequently seen on the coast, of which I have not yet obtained specimens or reliable accounts.

The main body of these birds spend the winter far to the westward of these shores; but a large number of stragglers of almost the whole list (of the duck and gull species) remain over winter, and furnish an agreeable variety to the larder, and a luxurious substratum as well as covering to the beds of our fishermen. On every fine day towards spring, especially if slightly hazy, as before a thaw, when the sea is smooth, from daylight till dusk, a continual popping is heard all around the Bay, and the far-off dot-like boats with their puffs of smoke add an enlivening effect to our winter landscape. Then the murr shooter is busy, for murrs at this season of the year seldom fly, but strive to escape by diving. The fowler, provided with one or two old militia muskets, an ox-horn full of cannon powder, and a bag of duck shot, sits amidships in his skiff, facing the bow. Pushing the oars, he quietly approaches the murr within thirty or forty yards, and fires. If the shot fails, the bird dives and comes up a hundred yards or so further off, is again approached as before, and so on until finally secured.

Our sea-birds begin to return eastwardly to the breeding places in the following order:—eiders about the middle of March; young coots and young eiders (*i. e.* birds not a year old), puffins, murrs, turrs, long-tailed ducks, harlequin ducks, loons, sea-pigeons, and shell-birds, about the last of March. Old coots a week or so later than the foregoing. By the last of June all birds of the duck species have passed.

They mostly fly with a fair wind, though not a day passes without some travellers during the migrating season. The largest numbers keep off at distances varying from four to eight miles from the ordinary coast line, so that the largest flocks are clear of danger,

and only the smaller ones pass close by the outside capes and headlands. Consequently, Green Island affords the best shooting, Iron-bound Island, off Chester Bay, the next best, then the outside ledges at the west side of the mouth of this Bay, where many birds stop to feed on shell-fish. The inside flocks then make a straight course for Peggy's Point, thence fly directly to Betty's Island, off Prospect,—a very few passing within shot of the islands off Dover.

The young birds, both of the eider and scoter species, viz., such as are about pairing for the first time, do not as a general rule fly with their seniors, but prefer going in flocks by themselves. Whether this arrangement is dictated by prudence on the part of the old birds, or impatience of controul and a desire for congenial society among the young, its consequences prove that the largest liberty is not always the best thing for youth and inexperience. Urged by the instinct of reproduction towards the sunny islands of the north, the young birds take the shortest routes, pass within reach of the fowlers' shot, and many pay for their impatience with their lives. "*Festina lente*" is a lesson towards housekeeping most frequently learned by painful experience, by men as well as birds on our shores. Early marriages among the thriftless and unprovided lead to much misery among our fishing population.

The food of most of the duck species seems to consist mainly of shell-fish, principally mussels, which they obtain from the various outlying ledges. I say most of the duck species, because some—such as "shell-birds," murre, and turnstone,—like the gulls, live mostly on fish. And here we observe the provident care of Him who openeth His hand and filleth all things living with plenteousness. Birds living on shellfish and weeds are furnished with a broad, flat, strong bill, suitable for detaching and crushing their food. Others, such as shell-birds, which live on both small shells and fish, have the bill narrower and stronger, as well as sharper in the curved edges at the sides. Others still, such as turnstone, and gulls, &c., which feed on fish alone, have the bill narrow, sharp at the sides, and generally with a downward curve at the point, for the better seizing and securing the slippery and struggling prey.

Sea-birds, much more than land-birds, are inclined to straggle from the main flocks and deviate from general rules. The migratory thrush is almost the only straggler among our land birds

that I have observed remaining behind the main body in their autumnal migrations. But, as I before observed, almost our whole list of sea-birds are given to straggling habits in autumn. And in spring, whilst the main body go far north-east to breed, a few grey gulls, murre and puffins, breed on our shores. Tradition would show, however, that the majority are reformers, whilst the minority are such as hate vulgar innovations, are content to "let well-enough alone," and stick to old systems, regardless of danger. Old settlers affirm that these shores formerly abounded with sea-birds, and that our outlying islands were the breeding places, not only of almost all the existing species, but also of one which, by the description given me by the late Michael Publicover, of Blandford, I take to have been the great auk (*Alca impennis*). But as men and guns began to multiply, the birds found it necessary to resort to less frequented places to the north-east. So it has been also with the fish of these waters. Danger has altered their habits, and it is only those which "learn nothing and forget nothing," that among our birds and fishes retain unaltered the institutions of more ancient times and safer circumstances.

The names given to our sea-birds by the fishermen are mostly descriptive, as indeed all names of distinction should be. The puffin is called the parrot, because of the similarity of its bill to that of the latter bird. The cock-a-wee is so named from its gabbling note, which sounds like this name. In some parts of the Province it is called the old squaw, from the ludicrous similarity between the gabbling of a flock of these birds and an animated discussion of a piece of scandal in the Micmac language, between a number of antiquated ladies of that interesting tribe. The harlequin duck is called a lord, on account of the gay plumage of the drake. It is also known as the imp, because of the difficulty of shooting it. The little auk is called the bull bird, from the shape of its head and neck. It frequents our coves in the dead of winter and towards spring, and rarely flies, but endeavours to escape pursuit by diving. It is the favourite game of boys, more eager for the pleasure of a shot than solicitous as to the cost of ammunition.

The boatswain is always found in company with his betters, the larger kind of gulls, who by no means relish his society, but vote him an intolerable bore. His habit is to pursue the gulls through

the air until they drop their excrement, which he catches and devours ere it reaches the ground. He is consequently looked upon with much contempt by our fowlers, but enjoys the usual immunity of meanness, for the gulls are shot and eaten, whilst he is suffered to escape.

The hag-down is seldom found near the shores, but like the sea-goose keeps off at a distance of not less than six or eight miles. In dark and foggy weather both kinds come in occasionally, the sea-goose particularly, about the end of June. Hag-downs, like petrels, are very fond of scraps of fish or meat thrown overboard by the fishermen, who thus lure the birds to their destruction, the hag-down flying so close to the boat as to be easily knocked down with a sprit or oar. They are very tenacious of life, and like Irishmen may be "kilt" many times by the blow of a stick, and yet recover. They are killed mostly for the sake of their feathers. The bodies are generally thrown to the pigs, though some persons manage to eat them, as they eat gulls and cormorants, by skinning before cooking them.

The birds most highly prized for food are eiders and coots, or scoters. These are shot in large numbers at Iron-bound and Green Island by the help of decoys. The ingenuity displayed in the manufacture of these decoys is very creditable to our fishermen. They are made of pine or spruce, neatly shaped, and not unfrequently covered with the skins and plumage of the birds they represent. They are attached to each other by pieces of codline of various lengths, so that on the water they are distributed by the winds and currents, exactly in the manner and at the relative distances of their living prototypes when swimming at their leisure. The two families on Iron-bound place these decoys in good positions for shooting, immediately before the arrival of the first flocks of birds. For some days not a gun is fired on the island, nor a loud sound heard. The birds, arriving and finding everything still, and flocks seemingly of their own kind already in possession of quiet and desirable places for food and rest, exchange caution for emulation, call a halt, and at once settle down. Then begins the work of destruction. The decoys are quietly drawn in towards the shore by the fowlers, who with muskets and large water dogs are carefully concealed behind the rocks nearest the shore. The ducks follow by

degrees, until a large number are well in, and then, sitting and rising, receive the deadly welcome. The water is stained with blood, and covered with the bodies of the slain, and the air is rent with the flapping and quacking of the survivors, and the barking of dogs ere they muster courage to rush into the half-frozen water and secure the floating, swimming, and sprawling game. In this manner, during the easterly passage of the birds, hundreds are secured by the people on Iron-bound alone. I am credibly informed that during the vernal and autumnal flights something over two thousand birds were shot on this island in 1863. The greater part of the game is sent to Halifax, Lunenburg, and the neighboring places for sale, whilst the feathers bring from thirty to thirty-five cents a pound.

The people of Peggy's Cove shoot from their boats, lying off in a line extending seaward from Peggy's Point. I have seen in a morning in spring as many as fourteen or fifteen boats thus lying off, at the distance of a little more than a gunshot apart, tossing on a sharp "lop," or slowly rising and falling on a southerly swell. Two men go in each boat, one to fire and the other to keep the boat in position by short strokes of the oar, which is called "drumming." The wind is south-west, or west, the weather is hazy, and the birds, seizing the opportunity of a fair wind and obscurity, fly from headland to headland in large flocks. To our unpractised eye, as we stand on the cliff, no bird is visible; but the urchins around suddenly exclaim "there's a bunch comin'!" They come straight on; but presently discovering the nearest boat, sheer slightly, rise much higher, and pass between two other boats. Bang! bang! is the salute, and you see the disabled suddenly tumble with hanging wing; others reel on their course, try for a moment to keep up with the increased rapidity of their companions, but fall here and there at short distances from the boats.

From daylight until eight or nine o'clock in the morning the firing continues, and in the height of the flying season, at intervals throughout the day.

Sometimes these excursions are attended with excitement of a different kind. Two of our fishermen, tempted by the abundance of game, remained so long outside one squally morning, that at length a heavy sea filled the boat, sweeping the men overboard.

They were rescued by another boat's crew with much difficulty, having lost everything in their own boat.

Two others were coming in, on another occasion, after a morning's shooting, when they saw a heavy sea approaching. "Hold on!" said one, "and we shall get a runner." But the sea, instead of running them in towards the shore, broke upon their boat, and washed one overboard. The other threw him an oar, leaving himself but one, by which the boat was unmanageable. Another boat, however, rescued both men from their perilous situation.

A boat's crew on these shooting excursions will generally bring in from two or three to twenty or thirty birds, according to the position of the boat and the skill of the fowler. But at points further out along the coast, such as Green Island, Horse-shoe Ledge or Betty's Island, as many as forty or fifty birds are not unfrequently brought home by one boat in a morning.

At the first settlement of the shore, birds were much more numerous than at present. As the population increased, the number of birds fell off rapidly; but this decline was at length discovered to proceed more from the club than the gun. For many years vessels had been allowed to load with sea-birds' eggs at the various breeding islands between Nova Scotia and Labrador, through the entire period of incubation, and this egg-gathering was too frequently attended by the wanton and wholesale destruction of the parent birds. From the beginning of the breeding season to the end of it, these islands and rocks were continually visited, all fresh eggs were taken away, and all stale ones broken. At length some wholesome and necessary restrictions on the egg trade were put in force by the Canadian legislature, since which time the birds, though more wary, are not decreasing in numbers so rapidly as formerly. A future generation will see the necessity of reasonable protection for the reproduction of birds and fish, and necessity may inspire the firmness requisite for the impartial execution of such protective edicts.

The shooting of sea-birds is not only a source of profit to our fishermen, and a means of providing them with an agreeable variety at their frugal board, but it also relieves a great deal of the tedium of their winter season of inactivity. It is surprising, however, that accidents do not more frequently happen from their mode of charg-

ing their guns. Three fingers of powder and two of shot is the smallest load for their old militia muskets—the approved gun here,—and in the hurry of loading in a boat much more powder is frequently poured in. Black eyes and bloody noses are the not uncommon penalties of a morning's sport, and I know one fisherman whose nose has been knocked permanently out of shape by the frequent kicking of his gun. In several instances the gun has gone clear overboard out of the fowler's hands, by the recoil. But nothing can daunt these men, or induce them to load with a lighter hand. There is one living at Nor'-west Cove, who has had his right eye destroyed by his gun, but who is now as great a duck-shooter as ever, firing, however, from the left shoulder.

Many of these people have a strong belief in the potency of charms and incantations, in connection with shooting, and consequently would lose all confidence in themselves, and all ability to take aim, with a "charmed gun." A man formerly lived at La-Have, who enjoyed the reputation of being able, with a glance, to pervert for a time the shooting qualities of any gun. Not unfrequently did this fear of his evil eye induce other sportsmen to withdraw, leaving him all the shooting of the occasion. The same superstition exists among the African tribes, so far proving that the negro is "a man and a brother."

A singular proof of the adaptation of instinct to necessity, is found in the manner in which sea-birds of the duck species attempt to escape when on the water and unable to fly. They will swim for long distances just so much below the surface of the water that the end of the bill as far as the nostrils is the only part of the body exposed to the air. Many in this way escape the most careful pursuit. It seems to me more than probable that this art has been acquired since their acquaintance with man, the only foe whose "far-darting" destructive power, and inability to see the operation from above, makes such a mode of escape at once necessary and practicable.

Crippled birds resort to retired coves and out-of-the-way nooks, where they remain until fully recovered. Some are wing-broken and unable to fly, others are maimed in the leg or foot and cannot dive, but He who careth for the fowls of the air is their provider, and very many of them get the better of their wounds. There is a



favourite resort for wounded birds between Peggy's Cove and Dover, which is thence called the "hospital." There is also a well-known "hospital" for sick and wounded fish about a quarter of a mile outside of Peggy's Point. It is a narrow gulch or ravine with a muddy bottom, thirty fathoms deep, bounded on each side by a sort of rocky cliff fifteen fathoms from the surface. Healthy fish, observing ordinary rules, are found on the rocky bottom at each side of this ravine, but in the muddy valley itself none but the sick and wounded are taken. There they are caught of large size, but what are called "logy fish"—many of them wounded with deep gashes, not such as are generally made with any of man's contrivances, and all wretchedly thin. On either side of this hospital hake will not take bait in day time, but in the "sick bay" itself—"*necessitas nullas habet leges*,"—they will bite at all times. They are hungry, and therefore likely convalescent, but not sufficiently strong to defend themselves or take their ordinary prey at proper seasons outside.

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ART. VII.—SOME ADDITIONS TO THE GAME OF NOVA SCOTIA.

BY J. H. DUVAR.

(*Read Feb. 6, 1865.*)

"NATURAL HISTORY in the olden time" would be an excellent subject for the pen of any member of this Institute, who combines with his knowledge of Natural History a taste for dipping into history proper. In following his liking for the latter pursuit, the naturalist would stumble on records that would astonish the scientific men of the present day. While it is impossible to withhold our meed of admiration from the early travellers and missionaries who, led by the spirit of adventure, or zeal for their order, made their way into the most savage lands, and brought back not unfaithful accounts of manners and customs, it is yet astonishing how credulous they were in all that pertained to natural history. I have in my possession a tracing of a Jesuit map of Lake Superior, made in 1670, which agrees in almost every detail with the modern chart, yet of the same date, when their topography was so reliable, the reports of the good fathers on animated nature were