

ART. V. SOME ACCOUNT OF THE PETREL—THE SEA SERPENT—AND THE ALBICORE—AS OBSERVED AT ST. MARGARET'S BAY,—TOGETHER WITH A FEW OBSERVATIONS ON A BEACH-MOUND, OR KITCHEN-MIDDEN, NEAR FRENCH VILLAGE. BY REV. JOHN AMBROSE, M. A., OF ST. MARGARET'S BAY, N. S.

[*Read January 4, 1864.*]

HABITS OF THE STORM PETREL,

As observed at Green Island, off the Coast of Lunenburg Co., N. S

HAVING heard that Petrels were in the habit of breeding on Green Island, I visited that place on the 28th day of June, 1860. The island is situated at a distance of about ten miles out at sea, off the mouth of Chester Bay, and having no harbour or inlet of any kind, can be approached only in calm weather, and when the sea is smooth. The best landing place is in a sort of nook in the rocks, on the north-east side of the Island. I had been informed that the Puffin was also in the habit of breeding there, but when I landed not a bird was to be seen but some terns and mackerel gulls flying overhead, whilst the whole island under foot was perforated and undermined by the Petrels.

I first took a tour all around the grassy edge of the cliffs, to look for gulls' eggs. I found two dozen of the terns' eggs, and the men who rowed my boat found eight dozen. Then commenced the search for Petrels' eggs,—tearing up the turf with my hands, and following the little galleries with my fingers, I soon secured four-and-a-half dozen of the eggs, and two of the parent birds, as specimens. I could have obtained almost any number of the eggs, and every parent bird therewith, as the poor little things cower back into their holes, making not the slightest noise or resistance, whilst they behold the robbery of their property, and the destruction of their dwellings. In no instance except one, did I find more than one egg in a nest, and in that there were but two; and yet some of the birds were hatching, as some of the eggs contained the embryo, with its head and body so far developed as to clearly identify the species.

The smell of the birds is at first very offensive, and so strong that we easily perceived it at a distance of two miles from the island, to

* I am informed by an officer of the *Petrel*, surveying ship, that Petrels' eggs were found in the nests on Green Island, by the surveying party, in the months of May and September.

windward. A gentle air from the south-east often carries this odor to Peggy's Cove, a distance of about fifteen miles. This smell, which can also be perceived on the gull species, and which is something akin to the odour of the ram and goat among quadrupeds, belongs in a peculiar manner to the Petrel and its egg, and is particularly perceptible in the dark brown oily fluid which, seemingly in self-defence, these birds squirt from their bills.

These Petrels are nocturnal in their habits—at least during their residence on our shores; as, like the owl they are never seen abroad in daylight, except in dull or foggy weather. It was just sunrise when we landed on Green Island, and although we had seen several Petrels flying about the boat during the night, and at dawn of day, on our passage, yet on the island not one was to be seen. All were underground, where at first you could hear their twittering, like the squeaking of mice, whilst seemingly arranging about nests and accommodations; but soon after sunrise they became entirely silent, at least so far as the screaming of the gulls, which was always about the same, would allow you to judge.

On taking a Petrel out of its nest, it would not at first, on being set down, attempt to fly, but would endeavour to dig and shuffle its way down into one of the broken holes. Most of the nests seemed to be old ones newly fitted up, and I found several such where the birds had brought quite a sprinkling of fresh dirt out to the surface. The galleries run in zigzags, parallel with the surface, and at an average depth of about six inches. In making their nests in the angles of these galleries, the birds take care to have at least two ways of access to the surface, perhaps lest one should be trampled in by heavier animals than themselves, as instinct is always equal to chronic necessity. Each nest is merely a little recess on the side of the gallery, so that the incomer or fugitive need not disturb her neighbours. The nest itself is composed of a very little firm dry grass, and is always scrupulously clean.

In digging their holes, these birds use the bill for a pick-axe, and throw the loose earth behind them very rapidly with their webbed and shovel-like feet, kicking with each foot alternately, and wallowing and pressing along, as I could see by setting one, just taken out into the light, at the edge of one of the broken holes, before she had sufficiently recovered her sight and scattered faculties to fly away.

Sometimes in spring and autumn a very heavy gale drives these Petrels inland, where they are occasionally found lying in the fields, unable to fly. Mr. Richard Daubin, of Peggy's Cove, informs me that his family, one morning in the month of June, found a Petrel on the mantel-piece in the kitchen, which they thought could not have entered the house otherwise than by the chimney, during the night. Mr. Daubin laughingly adds, that on the previous day he had brought a large number of Petrels' eggs from Green Island, and supposes the bird had arrogated to herself the "right of search." If, however, the sense of smell is more keen in the lower animals than in man, and if the odour of the birds can be perceived by the people of Peggy's Cove when the wind is fair from Green Island, is it not within the bounds of possibility, that a smaller quantity of this scent could be traced by the bird, perhaps flying in the neighbourhood of the house in which the eggs were deposited?

After the foregoing visit to Green Island, having found the opinion very widely prevalent among our fishermen, that the Petrel hibernates on that lonely spot, I made a second visit to the place, in a schooner owned by Mr. William Crooks, of Peggy's Cove, on the first day of March, 1861. The sea being smooth, we landed on the island at sunrise, provided with a crow-bar and an old axe, with which we soon broke up several holes, but found no birds, and only one addled egg, a sad memento of love's labour lost, in the previous summer. This widely-spread opinion concerning the hibernation of the Petrel, may therefore be safely classed with the ancient and kindred myth regarding the winter quarters of the swallow. It is remarkable, that so many respectable persons had assured me that the birds remain in their holes, in a torpid state, all winter, and that they themselves had dug them out in very cold weather. But as the Petrel does remain until November, and the flocks commence to return about the beginning of April, I conclude that some stragglers or early birds may for a short space remain behind, or precede the main body, and that such were the individuals secured by my informants. Indeed, a man from Great Tancook Island, who saw me digging, assured me that he had dug Petrels out of the ground on "Ironbound Island," near Tancook, in the month of February.

I am convinced that the habit of our Petrels is to spend the months of December, January and February, somewhere south of our coast; and the greater part of that time at sea, near the edge of the Gulf Stream. Our Peggy's Cove bankers see them about thirty miles broad off to the southward, about the end of March, on their first trip for codfish. Several of our fishermen who have sailed to and from the West Indies, in the winter season, inform me that they never fail to see myriads of those birds during winter, in and about the Gulf Stream. They are to be found in their burrows again, on Green Island, about the middle or latter part of April.

The geological formation of Green Island is transition slate, with quartz veins. It is covered with a soil of turf, varying from one inch to two feet in depth. The Island is one hundred and twenty rods long, by fifty-four rods wide, and takes its name from the quantity of grass which grows on it during the summer.

At the time of the first settlement of Lunenburg, and until within about the last fifty years, a species of sea-bird bred on this and the neighbouring islands, which by the description given by the old people, I think must have been the Penguin. The Puffin is forsaking the place, as it is now much haunted by duck-shooters. Its habit was to lay its eggs, not in burrows, but under nooks and clefts of rocks around the edge of the Island, especially on its south-west side.

THE SEA SERPENT IN ST. MARGARET'S BAY.

IN the Summer of 1846, James Wilson, teacher, and John Bœhner, both of Peggy's Cove, being on board a schooner lying off Mill Cove, on the west side of St. Margaret's Bay, saw in the water at a distance, something which they took to be a large fleet of nets. Their attention having been for a few moments drawn off by the appearance of a school of grampuses entering the Bay, they were surprised, on again looking at the supposed fleet of nets, to see it straightening itself out, and moving off so swiftly as to leave a wake as large and as much agitated as that of a schooner in swift motion. They now perceived the object to be a large Serpent, with a head about the size of a barrel, and a body in proportion, and with something like a mane flowing down its neck. It carried

its head erect, with a slight inclination forward. A fisherman belonging to Mill Cove, now came rowing with all his fast decreasing strength, to the schooner, and having barely leaped in over the side, fainted with terror on the deck. Wilson thinks the animal was about from seventy to one hundred feet in length. Its colour seemed to be a sort of steel-gray.

George Dauphiney, Esq., of Boutilier's Point, Lower Ward, also saw this, or a similar serpent, near Hackett's Cove, as he was inadvertently rowing over it in his skiff. He made no examination of it, but rowed away from so dangerous a proximity, as fast as possible.

In the Summer of 1849, Joseph Holland, now living near Port Medway, being in company with Jacob Kedy and two other fishermen, on South West Island, at the west side of the entrance of this Bay, saw something very large and long in appearance, swimming on the surface of the water, at some little distance from the land. Curiosity at length induced the men to launch a flat, and row out for a nearer inspection of the object, which apparently did not perceive them until they had rowed over where it was swimming. They now found it to be no other than an immense snake, about sixty feet in length, and as large in circumference as a puncheon. It was proportioned like an eel, *i. e.*, tapering towards the extremities, with no caudal fin perceptible, but one very high fin, or row of spines, each of about an inch in diameter at the base, erected along its back, serving indeed for a dorsal fin, like the folding fin of the *Thynnus vulgaris*, or albacore. This spinal erection seemed to occupy about one third of its length, each end of it being about equi-distant from the Serpent's extremities; and at a distance, somewhat resembling, in size and appearance, the sail of a skiff. The animal's back was covered with scales, about six inches long and three inches wide, extending in rows *across* the body, *i. e.*, the longer diameter of scale being in the direction of the circumference of the body. The colour of the back was black. The men had no opportunity of seeing the belly, but what the Americans would call, "a smart chance" of becoming acquainted with the inside of it; for the creature, perceiving the boat, raised its head about ten feet above water, turned towards it, and opening its jaws, showed the inside of its mouth red

in colour and well armed with teeth about three inches long, shaped like those of the cat-fish. The men now thinking it high time to terminate the interview, pulled vigorously for shore, followed for some distance by the snake, which at length gave up the chase and disappeared.

All these accounts are but the recollections of terrified persons, and yet their descriptions of the object of their terror remarkably agree with each other, and with the accounts of the Sea Serpent given by persons of better education, viewing it under safer circumstances.

A few years ago, one of these Serpents was stranded on Turk's Island, and the description given in one of the public prints by a lady, who saw and examined its dead body, tallies closely with Wilson's account.

On the 31st December, 1848, a naval officer on board H. M. S. "Plumper," saw between England and Lisbon, an immense serpent, with its head about six or eight feet above water, and about twenty feet of its back visible, showing a kind of mane. A sketch of this creature was forwarded to the Lords of the Admiralty, previous to the return of the "Plumper."

On the 6th of May, 1863, the African Royal Mail Steamship "Athenian," on her passage between Teneriffe and Bathurst, fell in with one of these Serpents. It was discovered to be a snake about one hundred feet long, of a dark brown colour, head and tail out of water, the body slightly under. On its head was something like a mane or sea-weed. The body was about the size of the ship's mainmast.

The Sea Serpent has not been seen in St. Margaret's Bay since 1849. It is supposed by some of the inhabitants of the place, that there were two of these creatures in the Bay, at or near the same time. This may account for the difference between the descriptions, especially in colour, given by Holland and Wilson. It may be that, in these as in other animals, the sexes are distinguished by peculiarities of shape or colour.

I have not been able to ascertain the motion of these animals in swimming, whether vertical or horizontal in its sinuosities. Wilson's first idea of the *corks*, would seem to indicate a succession of vertical motions.

The eyes of these Serpents must, like those of all their congeners on land, be small, as we never find much said of them in hurried observations, or by persons who have seen the animals from a distance.

The discrepancy which seems to exist between the descriptions of the mane, may be accounted for on the supposition that it is capable of erection or depression at pleasure, like the dorsal fin of a fish, and that the upper edge of it, when depressed, is pendulous. Indeed, the spines seen by Holland favour this hypothesis.

In connection with this subject, I may mention the account given by Mr. William Crooks, a respectable inhabitant of Peggy's Cove, of a large Serpent seen by him and his son Henry, a few years ago, at the entrance of the inlet to the "Canal Lake," between Peggy's Cove and Dover. It was, he affirms, not less than sixteen feet long, with a circumference of about two feet, and was of a dark brown colour. It was swimming and splashing in the landwash, apparently endeavouring to get ashore, which consummation to its labours appears not to have been wished by Mr. Crooks, who, with his son, incontinently took to their heels, nor did they consider themselves safe until once more surrounded by the houses at Peggy's Cove.

THE ALBICORE.

THE Albicore, (*Thynnus vulgaris*), was first seen here by the oldest inhabitants now living, about forty years ago. Since that time, however, it has increased in numbers, and is now a regular annual visitor of the Bay, arriving about the first of June, and leaving about the end of October.

These fish sometimes reach a size of fifteen feet in length. On their first arrival in June, they contain little or no oil, but after the arrival of the summer herring, soon fatten. Various modes of capture have been tried with them, but the only one now in vogue is harpooning. The harpoon iron is well secured to a good strong $\frac{3}{4}$ in. rope, and set, but not fastened, on the end of a pole, which the harpooner holds in his hands in the bow of the boat, whilst an assistant paddles around the herring nets, occasionally throwing overboard a fresh herring, which is soon noticed and seized by the Albicore, prowling below. These fish take their prey with a

rush, and so swiftly, that although not more than six or eight feet below the surface, their presence is only known by a white streak, like a flash of light through the water, and the sudden disappearance of the bait. The harpooner darts his weapon at the head of this streak, and thereby strikes the fish as near as possible to the pectoral fin; for if the weapon strikes any further back, it generally tears its way out.

If the iron be well struck home, now commences the tug of war. Out runs the line from its coil in the tub, some fifteen or twenty fathoms, the harpooner checking it as much as possible with his mittened hands, until the fish begins to rise. Now he begins to haul in his line, the boat meanwhile making rapid headway, to the speedy exhaustion of her fugitive motor, who soon comes to the surface. Now a noose is dexterously thrown over his tail, and his expiring efforts are spent in thoroughly splashing his captors, who tow their prize ashore in triumph, cut all the flesh from the carcase, except the lean and sinewy part near the tail, and boil it, in order to extract the oil, which, in a large and fat fish, will amount to some twelve or fifteen gallons. The largest proportion of oil is around the eye and in the vicinity of the pectoral fin. A small quantity of liquid oil is found in a cavity in the skull.

After the extraction of the oil, the residue or muscle is thrown away, as our fishermen have an idea that it will poison their pigs; though of late years some, to their profit, have discovered the fallacy of this notion.

The capture of those fish is not unattended with danger. Some years ago a fisherman struck a large one off Indian Harbour, in this bay. The line not being properly laid in the bow, but partially extending abaft the harpooner, was made fast amidships. It quickly ran out the bow coil: perceiving which, the man looked around to see that the end was secure, but found to his horror that the boy who had been with him in the boat had been carried overboard, far below the surface. Providentially, the fish by this time was at the end of his downward rush, so that with trembling haste the man drew in the slack line, and with it, entangled by the foot, the apparently lifeless boy, who, however, soon recovered.

A similar, but more disastrous termination to an Albicore chase, took place in the same locality, in the summer of 1861. A young

man's leg was caught by the harpoon line, which dragged him overboard, tearing out the "rising" of the boat, *i. e.*, the strip on which the ends of the thwarts are secured; his foot happening to be caught under this strip. His body was never recovered.

KITCHEN MIDDENS, OR BEACH MOUNDS.

THERE are two of these on the bank of Dauphiney's Cove, or Frost-fish Cove, in French Village: one within about a mile of an ancient burial ground on Indian Point—so called from its being the favourite camping ground and place of sepulture of the Indians, before and at the time of the first white settlement in this place. The other Midden is at the head of the Cove. Having heard that in both of these, Indian arrow-heads and hatchets of stone had been found at various times by the white settlers, I had the curiosity to dig into the lower one, and found it to be the deposit of a large quantity of shells, such as those which I shall this evening offer for your inspection. One of these, the *Venus mercenaria*, I think cannot now be found anywhere in this Bay in shoal water, from which I infer that either the Indians must formerly have had some means, not now possessed by them, of obtaining these fish from deep water; or else the habits of such fish in this Bay have changed; or lastly, the race in-shore must have been exterminated by the feasters around those Middens: for I cannot suppose that the land under the Bay has become depressed since that time, so as to form depths of former shallows, since these mounds are now found at the usual convenient distance of a few steps from the water's edge.

A neighbour having given me some small bones of what I take to have been a land animal, obtained by him from the lower Midden, I exhumed in the same spot a few more bones of the same sort, as also a piece of ancient pottery, evidently part of the lip of a cup. It was lying only five or six inches below the surface of a heap of shells, from which I venture to infer that these mounds were formed before the introduction of either French or English pottery into this country, and are therefore not less than two hundred years old; for I am willing to allow the large margin of fifty years for the gradual introduction of the implements of civilization among the Indians.

I have but broken the surface of the lower mound, and the

upper one is yet untouched, awaiting the investigation of this most useful and necessary Institute. Some few of our members made the lower Mound a flying visit, last summer, and also snatched a few moments to look at the ancient Indian burial-ground on the Point below, where I showed them a granite rock inscribed with a number of hieroglyphics. It is to be hoped that the mementos of a fast-fading race in these interesting and picturesque spots, may have a visit from the members of the Institute, some long day next summer, (D.V.), when an early start from the City, and a moonlight evening to return, will enable them to honour the rectory with their presence, where they will find a "*ceud mille failthe*," from the lady of the mansion, and her lord, and his boat at their service. It might be well to suggest that the ground should be trenched before their arrival.

It now remains for me to crave your pardon for occupying so much of your valuable time with this unscientific dissertation "*de omnibus rebus, et quibusdam aliis*" I feel safe, however, in the hands of true Naturalists, who are ever ready to encourage the tottering steps of the tyro in their beloved science. The multifarious and pressing duties of a pastor among a large and scattered flock, must claim my chief attention; but since my happy acquaintance with our worthy President, who first drew my thoughts toward natural science, I have found that one of the very best and most improving recreations of the clergyman, is the study of God's wisdom in His works of creation and providence, as saith the Psalmist: "O Lord how manifold are Thy works; in wisdom hast Thou made them all; the earth is full of Thy riches, so is the great and wide sea also,* in which are things creeping innumerable, both small and great beasts." What lively illustrations may we, like our Great Master, draw from earth and sea! And whilst the infidel or the scoffer resorts to the book of Nature in the pride and prejudice of a short-sighted human intellect, thus wresting its lessons to his own destruction, be it ours to read that book as we read God's written Word, with the prayer that He who wrote it for our learning may enable us in such wise to read, hear, mark,

* Ps. 104.

learn, and inwardly digest it, that by *patience* and comfort of His holy Word, we may, instead of making shipwreck of our belief in inspiration, embrace and ever hold fast the blessed hope of everlasting life through the incarnation of our Lord. Amid the strife and turmoil of worldly cares, how good it is to withdraw our minds from such trifles, and enter the temple of Nature where—

“ In that great cloister’s stillness and seclusion,
By guardian angels led,”

we may find the wisdom of the Apostle’s exhortation: “ Finally, brethren, whatsoever things are true, whatsoever things are honest, whatsoever things are just, whatsoever things are pure, whatsoever things are lovely, whatsoever things are of good report, if there be any virtue and if there be any praise, think of these things.”

ART. VI. THE ROCKS IN THE VICINITY. BY WILLIAM GOSSIP.

[*Read February 1, 1864.*]

THE Rocks in this vicinity, and those on which Halifax is built, would seem to be an uninviting study, except for the practical purposes of the mason, or architect. They are unsightly in aspect, and nearly bare of vegetation. There is about them the wildness of desolation without much of its grandeur. Indurated beyond a common degree of hardness, they have so little disintegrated during the unknown ages in which their surfaces have been exposed to the atmosphere, that the soil which covers them is only now sufficient for the growth of ferns and mosses, shrubs and stunted trees, chiefly of the fir and spruce varieties. Wherever indeed there is a soil, it must be ascribed to other causes than the disintegration just noticed, and requires to be fostered by all the skill of the agriculturist, ere it make a due return toward the sustenance of man. Yet these rocks of so uninviting an aspect, and that soil so unprolific of itself, must have had a wonderful history in the past. The one carries us back, as nigh to that record of time when God created the heavens and the earth, as Geology has yet attained to; the other dates from a more recent period, yet probably so remote, that man had not *then* appeared upon the face of the earth, although creation was approaching his advent—when beasts of huge bulk, and birds of fabulous proportions dwelt upon it, which have