A VISIT TO THE QUEEN CHARLOTTE ISLANDS.1

BY REV. C. J. YOUNG.

I HAVE striven to visit localities in Canada for years past with the view of gaining a personal knowledge of the birds, their breeding habits, eggs and summer movements. With this object I went last spring to Massett, Queen Charlotte Islands, and in that neighborhood spent most of the months of May and June, 1926 with my friend S. J. Darcus.

The islands, or rather Graham Island, the largest and most northern, is about 550 miles north of Vancouver, B. C. It lies between latitude 53 and 54 N. and longitude 132 and 133 W.; the climate is damp but quite mild. There is no excessive heat or cold and while rains are very frequent there are dry periods in summer.

The northeastern part of Graham Island is low with gently undulating sand and gravelly tracts along the coast, while inland there is a dense growth of cedar, hemlock and spruce, varied by occasional swamps and muskeg. The southwestern part is mountainous and very rough, with altitudes varying from 1000 to nearly 3000 ft. In such a diversified country a variety of birds, especially waders, is to be met with.

We left Vancouver on the afternoon of May 22. The weather was fine and pleasant during the remainder of that and most of the following days. The coast scenery of British Columbia is grand and imposing with high snow-clad mountains in the background. To the left lies Vancouver Island; it too has its mountains and rugged scenery, but its east coast is not as varied as is the coast of the mainland. Sea birds were by no means plentiful, and were probably at their breeding stations on some of the rocky islets in the Straits of Georgia at this season, though a large escort of Glaucous-winged Gulls and an occasional Herring Gull accompanied the steamer. We noticed some Violet-green Cormorants, Ducks, mostly Scoters, some Marbled Murrelets and Dusky Shearwaters; an occasional pair of Pigeon Guillemots and a few pairs of Murres were always present. These were all the birds we

¹ Read at the Ottawa Meeting of the A. O. U.

saw. The Marbled Murrelet has been stated to breed on some of the islands of the Straits but this is mere assumption and is probaby incorrect, for though a common bird in the waters of Vancouver and the Queen Charlotte Islands, its actual breeding haunts have never been located. The egg is unknown except for the one specimen that was taken from a bird shot some years ago and now in the U. S. National Museum.

My friend S. J. Darcus has paid much attention to these birds in the hope of finding a breeding place. Along with myself he spent some time at Toffin's Inlet, Vancouver Island, in June 1925. The bird was abundant in that locality and from there northward to Langara and Forrester Island, Alaska, seems to be the center of its abundance. We saw numbers of them in the open waters of the Pacific and along the coast during the day; at night they left the sea and flew inland. This is what he writes me from his home in British Columbia—"My observations of the breeding habits of the Marbled Murrelet in 1925 were as follows: the species undoubtedly nests in the mountains of the west coast of Vancouver Island: I have observed it flying in numbers towards the mountain peaks twenty miles from the sea during the months of June and July. I have also observed the species in Kennedy Lake (head of Tofino Inlet) in the fresh water. Its breeding quarters are apparently in the higher peaks, about 4000 feet above sea level.

"On June 30, 1925 I ascended a mountain which overhangs Kennedy Lake in order to search for a breeding place of the species. From the summit of this mountain, 4600 feet above sea level, I obtained a good view of the neighboring peaks in which I believe the species nests. As my time was limited I could not make further observations but I saw Marbled Murrelets flying towards these peaks which were still snow covered. On the peak on which I stood, a colony of Black Swifts was nesting in crevices on the cliff face, the nests containing young at that date (June 30). I found the majority of the nesting crevices inaccessible, but was able to reach several. With regard to the Murrelets I have frequently observed the species rising from the sea, carrying small fish and flying toward the mountains. I certainly have no objection to your using my notes and mentioning my name."

The eggs are probably laid in May, so by June they would have

mostly hatched. In 1926 we saw numbers of the birds about Langara Island (45 miles west of Massett) and from our observations at that time had reason to believe they were breeding in the rocky interior there and in the mountains farther down the coast of Graham Island. The Straits of Georgia are full of rocky islands but beyond Glaucous-winged Gulls, Cormorants, Sea Pigeons and Tufted Puffins, few if any sea birds are to be found breeding there.

After passing the Straits we crossed Queen Charlotte Sound, noting Cape Scott and Triangle Island,—a breeding station for Cassin's Auklet—on the left, and later reached Skedegate in the evening of May 24 and Massett on the following morning.

After locating ourselves we proceeded to make plans for bird study and investigation during our stay. Mr. Darcus started to walk along the beach to Tow Hill and Rose Spit. The receding tide leaves the sand hard and firm. Automobiles pass over it with ease, to and fro, to Tow Hill, about eighteen miles from Massett and thence to Rose Spit, a further seven miles. I proceded there on June 4. Breeding birds were not numerous. Spending two whole days on the spit—a projection extending three miles or further from the main shore—I only met with the Semipalmated There is a colony of them there and scattered pairs along the beach towards Massett. Probably from twenty-five to fifty pairs breed: we found fourteen nests. The two I found were well inland from the sea among sand and small stones, with no vegetation near. The first nest on June 6 contained four eggs highly incubated; I took photographs but did not further disturb it. The second nest I located the following day when the young had just hatched and lay huddled together, an unusual occurrence.

The nests we found were similar to those of the Piping Plover or the Ring Plover of Europe, lined or environed with pieces of clam shells and small pebbles, with no grass or other material. The only other birds I saw on the spit were some immature and non-breeding Glaucous-winged Gulls, a Black-bellied Plover, a flock of migrating Sandpipers, Least and Semipalmated, four Bald Eagles, some Ravens and a Queen Charlotte Jay (subspecies of the Steller's Jay) in the spruce trees that fringe the shore. On the Spit itself I did not see a Sparrow of any kind or other bird except the Plovers and Gulls, a birdless and most desolate place in June.

Between here and Massett we only saw one pair of Black Oyster-catchers. They had their nest at Yakan Point near Tow Hill.

While at Rose Spit I stayed at a settler's house near the shore. A mile west of the Spit I was interested to see a pair of Pheasants with three young ones. A few Pheasants some years before were introduced into the island but not many survived. The Crow has been their principal enemy, watching for the young and taking them as soon as they hatched. Besides the Pheasant I noticed a Sooty Grouse with young and heard Robins and Thrushes.

After my stay of three days at Rose Spit I returned to Massett. On the west side of the Inlet the country is heavily timbered with cedars and spruce. The tides are very strong and rise rapidly, at times to a considerable height, flooding the adjacent marshes. Black Oystercatchers were common at various points and amongst pebbles on a rocky islet I found two nests, close together. eggs are laid amongst the pebbles with scarcely any nest, but a depression lined with stones and a few bits of shell serves for one. Both nest and eggs are similar to the European Oystercatcher's except that the eggs are a trifle smaller and darker. The nest of the European bird is placed on the open beach or on beds of pebbles in river channels. Besides a few non-breeding Gulls the only birds seen here were a pair of Wandering Tattlers on the beach, some Cormorants, Auklets and Pigeon Guillemots about the mouth of the Inlet, and in grassy spots on shore, Townsend's Sparrow, and Rusty or Sooty Song Sparrows, the latter with young.

About Massett the dense undergrowth in the woods and the swampy nature of the country in many places, deters one, especially if alone, from exploring and investigating bird-life. However I noticed a few Warblers, the Lutescent, Black-throated Gray, Audubon's, and two others not positively identified. We found no Warblers' nests.

The Russet-backed Thrush was very abundant. It may have arrived earlier but we did not notice it until June 1 after which it was everywhere. Mr. Darcus found a nest with young just hatched in a small spruce near the house on June 28. Robins were very common, about the inlet, along the shore and wherever we

went. They had young out of the nest when we arrived. Crows were numerous about Massett and along the coast and Ravens were by no means uncommon. The Queen Charlotte Jay which is said to have been abundant is not so now and I saw only on. Kingfishers are plentiful and breed in the sandy banks; we found two of their burrows. Winter Wrens were abundant and we saw them everywhere in the woods. S. J. Darcus found a nest with six eggs in an upturned root, near the village on June 7. I did not see the Varied Thrush but my friend saw several and we heard of a nest built in a small hemlock, that contained five eggs. Every evening when the water was low four or five Great Blue Herons would come to Delcatla Inlet near Massett, to fish.

They were quite tame and gave the impression that a heronry was not far away.

The Rufous Hummingbird was very common almost as much so as it is at Tofina on the west coast of Vancouver Island where in 1925 I found five nests on one small island. They were built in the salal brush or in cinamox bushes, but about Massett these birds appear to build chifly on dead spruce limbs covered with moss-like lichens and not so low down.

Townsend's Sparrow (*Passerella iliaca unalaschcensis*) was common and we found a nest with young among the under brush near the sea shore on June 17.

Mr. Darcus left for Langara on June 8 and spent a fortnight there while I went later and spent a few days. With the exception of the lighthouse keeper, his wife and assistant there is only one man living on the island. In June and July a number of Indians fish there and occupy shacks at the beach opposite Lucy Island. The Ancient Murrelet breeds in this vicinity and on Lucy Island in numbers and along with them some Cassin's Auklets. The Murrelets outnumber the Auklets about three to one but their burrows are intermingled to some extent. I noticed that the Auklets were nearer to the sea and I found few of them farther than 100 feet from the rocky coast line while the Murrelets were sometimes several hundred feet and more from the coast, with burrows in the moss and among the twisted roots of the spruce trees. This may not be the condition at other points but so I found it at Langara.

On June 16 and 17 I took eggs of the Ancient Murrelet of which

the fresh ones seemed to be a second laying as some were highly incubated and a few had hatched. The Indian boys gather them for food and use them whether fresh or otherwise. Many of the nests were quite accessible the burrows extending into the soil or among the spruce roots for from three to four feet. Cassin's Auklet appears to breed earlier and I found only one egg although I saw young hatched probably a week or ten days before, while some of the burrows were empty. The Pigeon Guillemots were numerous along the rocky shores of Langara Island. Their first eggs were laid about June 15, often in very inaccessible places. I found broken egg shells on Lucy Island. The Rhinoceros Auklet is not uncommon; we saw them in Massett Inlet and Darcus found them breeding on an islet near Cape Knox on the west coast but did not get the eggs.

The interior of Langara is not so densely wooded as is Graham Island. There are muskegs and several small ponds but no lakes. Darcus walked from the southern extremity to the lighthouse about twenty miles but did not meet with many birds—Peale's Falcon, a few Sandpipers, Juncos and Sparrows. At the lighthouse I was surprised to find Barn Swallows nesting and one had a nest with five eggs in the porch of the dwelling house. Ancient Murrelets and Cassin's Auklets had burrows here and we noticed the following sea birds on the adjacent waters: Pacific and Common Loons, Tufted Puffin, Rhonoceros and Cassin's Auklets, Ancient and Marbled Murrelets, Pigeon Guillemot, Dusky Shearwater, White-crested and Violet-green Cormorants, Glaucous-winged and Herring Gulls, American and Red-breasted Mergansers, Whitewinged and Surf Scoters, Harlequin Duck, Canada Goose, Northwest Heron and Sandhill Crane. We were informed that the Sandhill Crane bred in the muskeg a few miles from Rose Spit and probably does elsewhere on Graham Island. The Lesser Yellow-legs is also reported to breed but we had no actual evidence.

Additional land birds observed included Siskins, the Oregon Junco and two pairs of Pine Grosbeaks.

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