

GENERAL NOTES.

Peculiar Actions of the Loon (*Gavia immer*).—While collecting this past summer around Whitefish Point, Michigan, we came to a small lake, known as Long Lake which is about half a mile long and several hundred yards wide, with a long narrow island at the west end. As we came over the thinly wooded sand ridge and peered through the bushes we saw a female Loon with two young about a third grown on the lake in front of us. The three were close together and after firing the two young lay on the water but the female was gone. After waiting for about five minutes, expecting to see some trace of the old bird we then went out and picked up the young, after which we paddled slowly down the Lake, stopping to examine some beaver houses on the way, though always on the lookout for the old bird. Fully thirty minutes later when we were nearly at the island which divides the lake at its west end, we saw both male and female watching us. As we paddled towards them one bird retreated but the other kept coming closer. When about a hundred yards away it dove, coming up about as far to the rear as it had been in front of us. We turned and paddled towards it, again it dove and came up to the rear of us. This occurred no less than six times, and each time the bird came a little closer; at one time coming up within ten feet of the boat.

The gradual shortening of the dives no doubt was due to the fact that she was getting tired, but why did she continually dive under our boat when the male had retreated to the end of the lake and was no longer seen?

The only solution I can suggest is that she must have known that the young were in our boat though she could not see them for they were in our collecting sack. Is it possible that a Loon has a sense of smell strong enough to detect its young under such conditions?—W. BRYANT TYRRELL, Cranbrook Museum, Bloomfield Hills, Michigan.

Notes on a Holboell's Grebe in Captivity.—On December 10, 1929, a living Holboell's Grebe (*Colymbus holboelli*) was found on the railroad track three miles from the frozen river. When approached, it made a series of swift lunges of the sharp beak accompanied by discordant, raucous notes: *ca-a-ar*, *c-a-a-ar*, *ca-a-ar*, quite prolonged. Its neck could be stretched to so great a distance that a lunge of the bird would strike an approaching hand two feet distant. Yet when a hand was manoeuvred to touch the back, the bird allowed its feathers to be stroked gently, nervously twitching the head and uttering a soft continuance of whining notes: *qu-a-a-r-r-k-k*, beginning deep in the throat and attaining greater volume as the bill was opened preparatory to striking. It refused all offerings of salmon though it had been hours without food, but showed a slight interest in, pieces of the fish dropped near the bill from a height above the head and snapped at them, several times holding pieces in the bill and then tossing them to a distance by snapping the head in a semi-rotary motion—a

characteristic manoeuvre. It shook water and fish oil from the bill in the same manner. In trying to gain the sanctity of a dark corner, the bird stood erect and ran a few steps at a time with a hobbling motion. On congoleum flooring it even made efforts to fly, lying prone on the breast, head and neck outstretched and working the wings in a semi-flapping stroke, making strokes with the feet that partially lifted the body from the floor and carried it forward.

On the second day I could handle the bird without fear of injury, though it squawked and struck when anyone else came near. This quick adaptability to domestication and its utter fearlessness were a marked reaction, though it was ever averse to be anything but a "one-man" bird. At this time it would lie in apparent contentment in my hand, feet drawn up and concealed in the flank feathers, the head carried erect and horizontal. When held like this, the feet were sometimes paddled so fast as to form an indistinct blur. It showed no signs of suffering from hunger, being rather given over to insomnia however, I believe from lack of strength since it later recovered from this ailment. All previous efforts to force it to feed were in vain, nor did it drink water, yet it remained generally active and alert. A cat would cause it to fluff out the feathers, squawk in nervous warning and try to get closer to the animal. Automobiles that could be seen passing on the highway caused just the opposite reaction: the feathers would be drawn tight to the body, neck craned low and arched, with the head poised facing the object of suspicion, a fear it partly overcame. Usually it slept with the feet drawn up and concealed, and the head and neck laid straight back, bill pointing front and lying flat against the wing,—or with the head twisted to one side or the other, and the bill pointing toward the tail and partially concealed among the feathers of the back.

After an extensive sun-bath on the second day, the Grebe became more active than before; the dullness was gone and it was observant of the slightest activity. Happening to see the goldfish in their tank, it made vigorous efforts to probe the glass sides. When placed on a large receptacle of water and a large goldfish installed, the fish was intercepted so swiftly and deftly that the eye could scarcely follow the movement. From then on, when placed on the water, the bird immediately immersed head and neck in a search for fish. Munnie-chubs from brackish streams on the coast were obtained and were the bill-of-fare thereafter. One fish after another would be taken accurately in quick succession, but fearing that it might eat too many, I tried to regulate the meals to about five fish three times a day. One day it had taken a total of more than forty and was not then satisfied! These fish proved to be very oily and the Grebe's feathers usually wore a yellow coating of this liquid when it remained long on the water, which served, no doubt, as an aid in shedding water.

The manner of feeding was seen to excellent advantage. At times the bird would sit motionless on the water (the feet were always in slow or

fast motion), and watch for the dim brown shapes beneath. Then, without a preliminary movement except a slight turning of the head, it would make a lightning dart and get a fish two feet under water at any point in three-quarters of a circle and without shifting the body position, even taking a fish far back under its feet! But more commonly it immersed the head and, getting the course of a fish's darting shape, would strike with the head and entire neck under water. Again, it swam swiftly round to frighten the fish into a better light, and rarely ever missed a strike, taking its food just back of the gills or sometimes near the tail. It never seemed able to take munnie-chubs at night with the room in darkness. To my knowledge, the bird never swallowed a fish under water, but their size may have had something to do with this. Some necessitated much worming of the head up and down and the neck backward and forward before the fish went down. It took dead fish without partiality, either from the water or the hand, treating them in the same way as a living one. Live fish were treated in one of two ways:—by severe crunches of the mandibles on the head until subdued, or by severe shaking. Then it would be tossed around until the head pointed down the bird's throat, or else manoeuvred by quick opening and closing of the bill to a position where it could be swallowed, while still alive. Fish were always taken head first.

At times the Grebe made efforts to exercise on the water, standing up straight, clear of the water to the heel, and paddling very swiftly, beating the wings, while the neck was partially straightened and the bill pointed at about a forty-five degree angle. This manoeuvre carried the bird forward speedily over the water. It was unable to shed water as a perfectly healthy bird should do and rarely had recourse to preening its feathers.

When apparently fully restored to active health, the day before it was to have been liberated on the lake, the Grebe escaped over an eighteen inch partition, and going down a long flight of stairs crawled into a wood-pile where it died. There seems to have been a flight of these birds in the interior of New Hampshire this winter as I have ten records from four towns and others have been reported.—LEWIS O. SHELLEY, *East Westmoreland, N. H.*

A Flight of Holboell's Grebes (*Colymbus holboelli*) at Toronto.—On the night of December 12 (1929), during a heavy sleet storm which glazed the pavements and snow-covered landscape of the Toronto region, an extensive flight of Holboell's Grebes took place. These birds were probably passing over southern Ontario from upper Lake Huron and Georgian Bay to Lake Ontario, Lake Erie and southward. Upon striking the storm area of the lower Great Lakes some of them came to grief, either permanently or temporarily, while others apparently made the open waters of the lakes.