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HABITS OF THE OLDSQUAW (*CLANGULA HYEMALIS*) IN NEW ENGLAND.

BY GEORGE H. MACKAY.

THIS sprightly little salt water Duck frequents the New England coast during the colder half of the year, where it is well known under the cognomens of Oldsquaw, Oldwife, and Quandy. It is the swiftest flying as well as the noisest (in the spring) of all the sea fowl which tarry with us. While flying, their wings are moved with such short and rapid strokes that it is difficult to follow the movement with the eye. As a result they pass from one place to another in an incredibly short time, especially if flying with the wind; and even when flying against it, I have found it necessary when shooting to make an allowance of six to eight feet ahead and two feet over them in order to land my charge of shot in a passing flock at fifty yards, which serves as an illustration of the rapidity of their movement under such conditions. Their flight is frequently uneven, being on an upward and then on a downward plane, and as a rule near the water, generally dodging when a shot is fired at them.

In the spring as flocks flew past my boat, I have often been much interested and amused at their scolding or talking, if I may so designate their curious notes, *o-onc-o-onc-ough-egh-ough-egh*. In calm warm mornings in April and May I have often seen them playing together, rushing at each other half out and half under water, and so vigorously engaged as to cause the water to fly in every direction. When wounded, they are most difficult to capture and extremely tenacious of life, diving at the flash of a gun, skulking with body submerged and head and neck extended and level with the surface of the water, and displaying an endurance almost incredible. When shot at while flying, although unhurt, they will occasionally dive from the wing; if wing-broken, they will frequently do so. An attempt to retrieve them under such conditions is usually unsuccessful, and if it is a male bird and the long tail feathers are perceived to be erected as it sits on the water, prepare for a long and doubtful chase, for such birds will turn around while under water and swim in an opposite direction, and have recourse to every stratagem to escape capture.

It is the current belief that these birds, as also the Scoters, Eiders, and other similar diving birds, can escape a charge of shot fired at them by diving before it reaches them; this is only partially true, and applies only to distances over twenty yards. I have never yet seen one quick enough to get under water at that distance or less without getting hit, even if the bird was on the alert. I have reached this conclusion after a long experience in capturing wounded birds.

In the autumn Oldsquaws appear about the middle of October, and occasionally a little earlier; but generally it is not until there has been a hard frost that they appear in numbers. The first arrivals as a rule are gentle and tame, and easily approached. I think these birds migrate mostly by night, as I have not heard of many such flocks being seen in the daytime. I personally have noticed only an occasional one. At such times they were flying very high, the flocks numbering about seventy-five to one hundred birds. On reaching a locality where they desire to remain, they circle around three or four times before alighting, after which they remain together for an hour or so, and then break up into groups of a dozen or more. These Ducks have a habit of towering both in the spring and in the autumn, usually in the afternoon, collecting in mild weather in large flocks if undisturbed, and going up in circles so high as to be scarcely discernible, often coming down with a rush and great velocity, a portion of the flock scattering and coming down in a zigzag course similar to the Scoters when whistled down. The noise of their wings can be heard for a great distance under such conditions. In one such instance at Ipswich Bay, Mass., a flock of several hundred went up twice within an hour. A somewhat similar occurrence took place at Wood Island, near Saco Beach, Maine. Also at Scarborough, Maine, on May 1 a flock of several hundred birds went up in circles out of sight in this manner at 11 A.M., and remained away until afternoon when they returned to the same locality in the neighborhood of the beach, coming with a perfect rush. All of the above places used to be favorite resorts of these birds, as was Coggles Harbor, Shelter Island, Long Island, N. Y. Another resort is near Long Beach Point, Orient, Long Island, N. Y. At Biddeford, Maine, where they are abundant in May, certain tides carry them during the night to the westward near Old Orchard. This necessitates their flying back the next morn-

ing towards the east to their feeding ground in Saco Bay. This movement is taken advantage of by sportsmen who, by locating in their 'fly line,' frequently secure considerable numbers of them. In 1886 they were unusually abundant in October off Revere Beach, Mass., there being one or more acres of them. The probable reason for this was to be found in the abundance of the short razor-shell-fish (*Siliqua costata* Say) which seems to appear in this locality about every third year.

Let me transport my readers, if I may, to a spot where I was but a short time since; it is one that is in accord with what I most enjoy. It is here that you can see (under favorable conditions) more Oldsquaws than you supposed existed in New England waters; and on such a morning as I will select for two hours such a continued stream of bird life shall pass that you will be more than satisfied. Close to your feet as you lie ensconced in a sand-built stand, as near the wash as prudence permits, roll in the mighty waves of the broad Atlantic; in front is the battle ground of the tides and winds. We are at the opening at Smith's Point (Nantucket Island, Mass.) on the brink of which we stand. Yet watch how gracefully and easily, regardless of winds or waves, the Oldsquaws, those little flashes of light, for such they truly seem to be as the morning sun shines on them, pass us with gauged flight just above the turbulent waves, now up now down, and then beyond. If you would shoot them as they pass, note well their rate of speed and make due allowance, at least eight feet ahead, and two feet over is not too much, for they are flying swiftly and are farther than they seem; with nine tenths of those missed the shot fall behind. It is the acme of skill in wild fowl shooting to take them singly or in pairs as they pass, but take my word for it, one must have the taste inborn, and serve a long apprenticeship before success can be attained. Do not let us, however, forget those Oldsquaws, shot early in the morning, which were rapidly carried by the tide from our view through those seething waters, and apparently lost; some of them will meet an eddy which will carry them sufficiently out of the current to give the wind and waves an opportunity to cast them on the shore from half a mile to a mile below us. We must be on the lookout, for there are other eyes, sharper than ours, on the watch for them also, I mean the Herring and Great Black-backed Gulls, and the Crows; they are all of them fond of Ducks to eat,

and you will be surprised to learn, if you have not had the experience, how little time is requisite for them to tear open the breast of a Duck where the neck joins the body, and strip off every particle of flesh to the bone.

Off the south side of Nantucket Island the Oldsquaws collect in countless myriads. On Feb. 19, 1891, I saw a flock of Oldsquaws estimated to contain two thousand birds off the south shore of Nantucket about five miles from the island, and I know of no better place to observe them in numbers. They arrive about the third to the last week in October according to the weather, and remain until the latter part of November; most of them then move further south. The height of their abundance is the first half of November. They congregate on 'Old Man's Rip' and on 'Miacomet Rip,' shoal ground two to three miles from the south shore of the island, the water there being three to four fathoms deep. Here they live in security, with an abundance of food, during the day. About three o'clock P.M. they commence to leave this place for the Sound (the movement continuing until after dark) where they regularly roost, flying around that part of the island which affords them at the time the greatest shelter from the wind, returning on the following morning to their feeding ground by whichever route is the most favorable. An examination of the stomachs of some of those Oldsquaws which I shot in the early morning coming from the Sound, showed them to be empty. I think occasionally on clear calm nights they remain on their feeding grounds, and do not go into the Sound to roost. They apparently prefer to feed in water not more than three to four fathoms deep or shallower, unless compelled in order to obtain food. I have noticed north of Cape Cod during the winter months that some Oldsquaws will feed and remain just back of the line of breakers on the beaches, and also around the rocks, but generally they are in small and detached groups of but few individuals.

Oldsquaws do not seem to be at all particular in regard to their food, eating quite a variety, among which are the following. A little shell fish, very small, resembling a diminutive quahog (*Venus mercenaria*), but not one; sand fleas; short razor shells (*Siliqua costata*); fresh water clams; small white perch; small catfish; penny shells (*Astarte castanea*); red whale bait (brit); shrimps; mussels; small blue-claw crabs; and pond grass.

In the spring Oldsquaws appear early in April, that is those which have wintered farther south. There are more or less of them which live on our coast during the entire winter. They remain until the middle of May, a very few sometimes as late as June 17, which is the latest record I have known. The extraordinary difference between their plumage at this season (I have seen this change half completed by April 18) and during the winter has been so often remarked and described that it is unnecessary to make particular mention of it here. The females are a little smaller than the males, and have no long tail feathers. The young males resemble the female in their winter plumage, having no long tail feathers or elongated scapulars the first year. I do not think they attain their full plumage before the second or third year, and I lean to the longer time, judging from the diversity of immature plumage.

Oldsquaws have a manner of alighting peculiar to themselves, suddenly dropping into the water from the wing with a splash which enables one to identify them when too distant to be seen distinctly. These Ducks like the American Eider (*S. dresseri*) avoid passing over shoals or sand spits when the sea is breaking sufficiently to make white water, preferring to pass around or on one side of them. I have remarked that these Ducks prefer to keep entirely by themselves, rarely mixing with other kinds, the American Eider (*Somateria dresseri*) being the only one I have ever known to be with them, and then only an occasional bird, whose abilities were apparently being taxed, when flying, to keep up with its little companions.

Although, as their Latin name expresses, they are particularly a cold weather bird, it is a matter of interest that Ducks with such Arctic proclivities should find the effects of the climate so rigorous at times on the New England coast that they are unable to sustain life and are in consequence obliged to succumb. Yet such is the case. It was during the winter of 1888, when, standing on the high land of Nantucket Island and looking seaward in any direction, nothing but ice was visible; for a month the harbor was closed and there was sleighing on it. There was no open water in sight except an occasional crack in the ice caused by the change of tides; most of the seafowl had left this locality during the early stage of the severely cold weather. Many Oldsquaws remained, however, until they

were incapacitated through lack of food and consequent loss of strength from doing so. As a result it was a common occurrence to find them lying around dead or dying on the shore. Those that were alive were so weak they could not fly, and on examination proved to be nothing literally but skin and bone, others apparently had starved to death. Those found were always females or young males which, like the females and young of the Black Duck (*Anas obscura*) and the American Goldeneye (*Glaucionetta clangula americana*), are unable to endure as much hardship as the adult males, they generally being the first to succumb, while the adult males, when shot under similar conditions were found on examination to be in fairly good condition and not so emaciated. During the above-mentioned winter on a certain occasion the tide caused a crack in the ice adjacent to the jetty on the north shore of the island of Nantucket, leaving a small surface of open water which was soon crowded with half starved Oldsquaws in quest of anything which might sustain life. This collection of Ducks was noticed by two men who planned to capture them in a rather novel way. Having walked out on the ice to the spot, each being provided with a sheet and a fishing pole, they drove out the Ducks; and wrapping themselves in their sheets they lay down on the ice beside the crack. As soon as the Ducks had returned in sufficient numbers, which they did almost immediately, they jumped up and with their fishing poles beat down as many as came within reach, repeating the operation a number of times till they had secured about sixty in a little over an hour, when they desisted, repeating the operation on the following day with a like result. They found, however, on examination that the Ducks were valueless except for their feathers owing to their emaciated condition. It would also appear that even these Ducks, boreal as they are in their habits, cannot endure the porridge ice which forms at times in these waters, for they are frequently found under similar conditions on the shores in other winters than the one above described. They apparently must have considerable open water in order to exist. It was during the early part of the severe winter of 1888 that many Oldsquaws sought the land. Alighting on the uplands adjacent to the north shore of the island, they came in flocks of a hundred or less, in order that they might obtain and eat the dried fine top grass (*Anthoxanthum odoratum*) which grows wild there;

when engaged in plucking it their movements while on the ground were far from awkward, in fact rather graceful, as they ran quickly about gathering the grass some of which was still in their mouths when shot.

Although the *Oldsquaw* is generally conceded to be a salt water Duck, they will like some others of similar habits frequent fresh water ponds which are near the shore, as also the large inland lakes. Such was the case to a greater extent than I have ever heard of or known before during the latter part of the winter of 1892. In the month of March they accumulated in numbers in most of the larger ponds on Nantucket Island, and in two instances several frequented very small ponds near the shore. In the Long Pond there were eight hundred (estimated) birds living, also a large number in the Hummuck and Miacomet Ponds. Their habit was to fly into the ponds very early in the morning, and fly out about sunset to roost in the sound, or on the ocean. As late as May 1 I saw several flocks of them, aggregating about one hundred, still living in the above ponds. So accustomed had they become to them that it was next to impossible to drive them out, although frequently shot at. Such unwillingness to leave is shared by all such sea fowl after they have once become attached to such places. In this vicinity it would seem that they first seek the ponds for shelter during severe and stormy weather, and becoming accustomed to them, continue to frequent them if plenty of food can be obtained. In those ponds most frequented by them on Nantucket Island two kinds of grass grow beneath the surface, both of which these birds eat. The leaf of one of these resembles myrtle ivy, and the other a little pine tree spread. They also find the freshwater clam, those about the size of a quarter of a dollar and smaller being selected.

Of the *Oldsquaws* I noticed living in these ponds on May 1, 1892, I remarked most of them had not turned into the black plumage to any great extent, yet on April 18, 1892, of three I shot, an adult male and female, and a young male, the two former were to a great extent turned at that date. The natural inference is that such moult is irregular, and may cover more or less time, each bird being as it were a rule unto itself.

As an instance (which occurred in the spring) showing the attachment of the female for the male (in my experience, most unusual) I relate an occasion when a female *Oldsquaw* returned four

times to her dead mate which had been shot, before finally being killed herself; during this time she alighted a little distance away and, swimming up to the dead male, kept continually honking and calling to him. As there were at the time several flocks of these Ducks not far distant, resting on the water, and as in flying about she had passed quite close to them, she might have joined them had she been so disposed, but she would not. The incident stands out alone in my experience, a most unusual exhibition of attachment on the part of the female for the male, it almost invariably being the other way with sea fowl.

Oldsquaws are also very numerous in October in some of the great inland lakes (Ontario). I have also a record of shooting five from a flock of six on October 24, 1869, at Missisquoi Bay, Lake Champlain, Vermont, near the boundary line of Canada.



LIST OF BIRDS OBSERVED IN THE VICINITY OF SAN ANTONIO, BEXAR COUNTY, TEXAS.

BY H. P. ATTWATER.

[*Concluded from p. 238.*]

118. *Spinus tristis*. AMERICAN GOLDFINCH.—Common migrant, and winter resident.

119. *Spinus psaltria arizonæ*. ARIZONA GOLDFINCH.—Rare migrant and winter resident.

120. *Spinus psaltria mexicanus*. MEXICAN GOLDFINCH.—Rare winter resident, but more numerous than *arizonæ*. It is also a rare summer resident among the hills twenty-five miles northwest of San Antonio; a male, shot June 8, 1890, which was feeding its young, is said to be "probably as typical as any United States specimens." I have taken all three forms (*tristis*, *arizonæ* and *mexicanus*) in winter, feeding together in the same flock, inside the city limits of San Antonio.

121. *Calcarius ornatus*. CHESTNUT-COLLARED LONGSPUR.—Common migrant.

122. *Rhynchophanes mccownii*. MCCOWN'S LONGSPUR.—Rare winter resident.

123. *Poocætes gramineus*. VESPER SPARROW.—Common migrant and winter resident.

124. *Poocætes gramineus confinis*. WESTERN VESPER SPARROW.—Abundant migrant and winter resident.