

THE RED-THROATED DIVER.

+*COLYMBUS SEPTENTRIONALIS*, *Linn.*

PLATE CCCCLXXVIII.—MALE IN SUMMER, YOUNG MALE IN WINTER, FEMALE, AND YOUNG UNFLEDGED.

Whilst the icicles are yet hanging from the rocks of our eastern shores, and the snows are gradually giving way under the influence of the April rains, the Blue-bird is heard to sound the first notes of his love-song, and the Red-throated Diver is seen to commence his flight. Already paired, the male and female, side by side, move swiftly through the air, steering their course, at a great height, towards some far distant region of the dreary north. Pair after pair advance at intervals during the whole day, and perhaps continue their journey all night. Their long necks are extended, their feet stretched out rudder-like beyond the short tail, and onwards they speed, beating the air with great regularity. Now they traverse a great arm of the sea, now cross a peninsula; but let what may intervene, their undeviating course holds straight forwards, as the needle points to its pole. High as they are, you can perceive the brilliant white of their lower parts. Onward they speed in silence, and as I stand gazing after them, they have already disappeared from my view.

The middle of May has arrived; our woods are once more filled with the melodies of numberless warblers, and the Divers have ceased to be seen on our eastern coasts. To study their habits at this season, we must follow them to the islands in the mouth of the broad St. Lawrence, or to the granitic rocks of Labrador. The voyage cannot be performed without great expense, and may be attended with danger, but enthusiasm urges me on, and now my bark skims over the blue waters. At length arrived on the rocky shores, I prepare to visit the interior of that rude and moss-clad region. Thousands of little lakes are seen, on which are numberless islets richly clad with grass and sedge, the whole of which seems as if it had grown in a day, so tender are the fresh blades, and so pure their light green tint. High over these waters, the produce of the melted snows, the Red-throated Diver is seen gambolling by the side of his mate. The males emit their love-notes, and, with necks gracefully curved downwards, speed by the females, saluting them with mellow tones as they pass. In broad circles they wheel their

giddy flight, and now, with fantastic glidings and curves, they dive towards the spot of their choice. Alighted on the water, how gracefully they swim, how sportively they beat it with their strong pinions, how quickly they plunge and rise again, and how joyously do they manifest to each other the depth and intensity of their affection! Now with erected neck and body deeply immersed they swim side by side. Reynard they perceive cunningly advancing at a distance; but they are too vigilant for him, and down like a flash they go, nor rise again until far beyond his reach. Methinks I see them curiously concealed among the rank weeds under the bank of their own islet, their bills alone raised above the water, and there will they remain for an hour, rather than shew themselves to their insidious enemy, who, disappointed, leaves them to pursue their avocations.

The Red-throated Diver is found, in tolerable abundance, on the sea-coast of the United States during autumn, winter, and early spring, from Maryland to the extremities of Maine. The younger the birds, the farther south do they proceed to spend the winter, and it is rare to see an old bird, of either sex, at any season to the south of the Bay of Boston. Farther eastward they become more common, and they may be said to be plentiful towards the entrance of the Bay of Fundy, in the vicinity of which a few remain and breed. I found some in December, January, and February at Boston, where I procured males, females, and young birds. The old had the red patch on the throat rather darker than in the breeding season; the delicate grey and white lines on the neck were as pure as I observed them to be during summer in Labrador; and I have since been convinced that birds of this family undergo very little if any change of colouring after they have once acquired their perfect plumage, the Loon and the Black-throated Diver being included in this remark; while, on the contrary, all the Grebes with which I am acquainted, lose the beauty of their plumage as soon as the breeding season is over. This remarkable difference between the Divers and the Grebes would of itself be sufficient to separate the two genera, were there not also other distinctions. The Divers, moreover, live on the sea during the greater part of the year, and resort to ponds, lakes, or the borders of rivers to breed; whilst the Grebes spend most of their time on inland lakes, marshes, and streams. Immediately after the breeding season, as soon as the young are able to fly, the families of Divers make their way to the arms and inlets of the sea, rarely entering the fresh waters until the following spring.

The Red-throated Diver is at all times an extremely shy and vigilant bird, ever on the alert to elude its numerous enemies. The sight of man seems invariably to alarm it, even in the wildest countries in which it breeds. I have often observed that, while yet several hundred yards from

them, they marked my approach with great watchfulness. First they would dive and make their way to the farther end of the pond, after which, with outstretched necks, they would remain silent and motionless, until I approached within about a hundred yards, when, instead of diving again, as the Loon always does, they at once, with a single spring, rose from the water, and ere I had proceeded a few yards, they were already eight or ten feet above it. If I crept towards them through the tangled mosses or shrubs, they would swim about with their heads elevated, as if determined to make their escape on the appearance of imminent danger. In many instances, my party observed this species in small flocks of five or six in the same lake, when it happened to be of considerable extent; and as this was during the height of the breeding season, we concluded that these associated birds were barren, as I ascertained that males and females, when once paired, remain together until their young are able to fly, when they part company, until the next pairing season, which is about the first of March.

This species begins to breed in Labrador in the beginning of June, and about a fortnight earlier along the Bay of Fundy. The numerous nests which our party found in the former district were all placed on small sequestered islands in the middle of lakes or large ponds of fresh water, rarely more than one mile distant from the sea-shore. These nests consisted merely of a few blades of rank grasses loosely put together, and were quite flat, without any down to warm or conceal the eggs *at any period* of incubation. The nest was placed within a few feet of the water, and well-beaten tracks, such as are made by otters, led to it. Whenever the birds went to this spot they walked nearly erect in an awkward manner, but when they sat in their nest they laid themselves flat on the eggs, in the manner of a Goose or Duck. In no instance did they alight on the islands, but always on the water, at some distance, when, after examining all around them for awhile, they crawled silently out, and moved to the spot which contained their treasure.

Having been told that the Red-throated Diver covers its eggs with down in the manner of many Ducks, I was surprised to find the assertion incorrect, and having killed several individuals during the period of incubation and immediately after it, I carefully examined them, and found all of them fully covered with down, they being, in this respect, quite different from the Eider Duck, the Velvet Duck, the Harlequin Duck, and other species of that family, nay even from the Black Guillemot. Probably it is on account of those birds breeding much farther north, that, according to Dr. RICHARDSON, they there line their nest with down. We also found the *Colymbus glacialis* incubating without any in its nest. The idea generally entertained that this species never lays more than two eggs I found equally incorrect,

for of five nests, two contained two eggs each, two had three each, and the fifth had three young birds. The eggs measure 3 inches in length by $1\frac{3}{4}$ in breadth, and are of an elongated elliptical form, nearly equally rounded at both ends; they are of a deep olive-brown colour, irregularly marked with spots of a darker dull brown. The male incubates as well as the female, and both are extremely solicitous about the safety of their young, which betake themselves to the water on the day succeeding that of their escape from the egg, and are from the first most expert swimmers and divers. Two of the young were shot by Captain EMERY, having been easily approached in the absence of their parents, at which he had shot without success, they not having yet learned from experience the danger of the proximity of man. They dived beautifully, and swam with great buoyancy, inclining their necks forwards, in the manner of the old birds. This was on the 5th of July, 1833. On the 15th of the same month, THOMAS LINCOLN and my son JOHN WOODHOUSE, saw several young ones, which, although quite small, were equally expert at diving. When swimming by the side of their mother they floated high, with the neck quite erect, while the old bird swam deep, with her neck inclined forward. When the little ones dived, they moved under the water like so many turtles, and at last were caught on the bottom of the pond, which was small and shallow, by placing the gun-rods upon them. So averse from moving are the old birds when sitting on their eggs, that they will not bestir themselves until in imminent danger, on which, however, they scramble to the water, dive, and, on emerging, immediately rise on wing without uttering any note. The male only is noisy on such occasions, and more especially when it returns from afar to its mate, when it evinces its satisfaction by calling aloud, as it repeatedly passes and repasses over the spot, and then alights in a pompous manner on the water.

The sexes differ materially in size, the male birds being much larger than the females, and weighing at an average fully a pound more. These birds are extremely tenacious of life. One which my son shot on the wing fell, dived instantly, and swam to a considerable distance under water, but returned to the surface, back downwards, and quite dead.

The notes of the Red-throated Diver are harsh and rather loud; they resemble the syllables *cac, cac, cac, carah, carah*, enounced in rapid succession. In some instances the young men of my party found that the most successful method of approaching these birds whilst on the water, was to run as fast as possible towards them and shout loudly, for on such occasions the birds dived instead of flying at once, and on emerging again, afforded them much better chances as they took to wing. At certain times, when approached while they have young, they utter a soft plaintive note, which

evidently conveys to their offspring their wish that they should remain quiet in their hiding-places.

The Red-throated Diver does not acquire the full beauty of its plumage until its fourth year. The young are at first covered with thick hairy down, of a blackish colour, inclining to brown. Before they are fully able to fly, this is changed into a dull grey on the upper parts, thickly sprinkled with white dots on the extremity of each feather, the lower parts being of a sullied white. During the second year these tints are firmer, there are fewer spots above, and the texture of the lower parts is more silky. In the third, both sexes assume the fine grey of the hind neck, with its longitudinal white stripes, and here and there a few spots of red on the lower part of the throat. The next spring their plumage is perfect.

I have never observed any of these birds on our inland lakes or rivers. In the neighbourhood of Boston, and along the Bay of Fundy, they are best known by the names of "Scape-grace" and "Cape-racer." By the 9th of August the young birds had left the fresh-water lakes and ponds for the bays on the coast, and we were informed by the settlers, both in Newfoundland and Labrador, that, by the last days of September, none were to be found in those countries.

The dislike which this species shews to fresh-water after the breeding season is such, that they are rarely seen in the upper part of large bays, but prefer for their winter residence the shores of sea-islands and barren rocks. Thus, at that season, they are met with about the outer islands of the Bay of Fundy, and those along our eastern coast.

While in fresh water, the Red-throated Diver feeds principally on small fish, shrimps, leeches, snails, and aquatic insects. The masses of feather-like substances often found in the stomachs of Grebes, I have never met with in this species. Its flesh is oily, tough, dark coloured, and disagreeable to the taste, although I saw some mountain Indians feeding upon it at Labrador with apparent pleasure.

COLYMBUS SEPTENTRIONALIS, Bonap. Syn., p. 421.

RED-THROATED DIVER, *Colymbus septentrionalis*, Swains. and Rich. F. Bor. Amer., vol. ii. p. 476.

RED-THROATED DIVER, Nutt. Man., vol. ii. p. 519.

RED-THROATED DIVER, *Colymbus septentrionalis*, Aud. Orn. Biog., vol. iii. p. 20; vol. v. p. 625.

Male, 19, 25. Female, 18, 24.

Not uncommon during winter, autumn, and early spring, from Maryland eastward. Breeds in Newfoundland, Labrador, and as far north as the Arctic Seas.

Adult Male in summer.

Bill as long as the head, slender but strong, straight, rather compressed, tapering to a point. Upper mandible with the dorsal line almost straight, the ridge convex, as are the sides, the edges sharp and involute; nasal groove basal, short; nostrils basal, lateral, direct, oblong, pervious. Lower mandible with the angle extremely narrow and extending beyond the middle, the dorsal line straight and sloping upwards to the point, the ridge convex, but narrower than that of the upper mandible, the edges sharp and involute; the point of both mandibles rather sharp.

Head of moderate size, oblong, narrowed before. Neck rather long and slender. Eyes rather small. Body elongated, somewhat depressed. Wings small. Feet short, rather large, placed very far back; tibia almost entirely concealed; tarsus short, exceedingly compressed, sharp-edged before and behind, covered all over with reticulated angular scales; hind toe extremely small, connected with the second by a very small membrane; the anterior toes united by reticulated membranes, the fourth longest, the third a little shorter, the second considerably shorter than the third; all covered anteriorly with very narrow transverse scutella, the second toe with a free two-lobed membrane; claws very small, depressed, rounded.

Plumage short and dense; of the head and neck very short, blended; of the lower parts blended, short, and with a silky gloss; of the upper slightly glossed and somewhat compact; the feathers in general oblong and rounded. Wings proportionally very small and narrow, curved; primaries strong, tapering, first longest, second almost as long, the rest rapidly graduated; secondaries broad, rounded. Tail extremely short, rounded, of twenty rounded feathers.

Bill bluish-black. Iris deep bright red. Feet brownish-black, the anterior edge of the tarsus, the upper surface of the toes, the claws, and part of the webs, pale livid flesh-colour. Fore part and sides of the head, throat, and sides of the neck, of a fine bluish-grey; fore part of the neck rich brownish-red; hind part of the head and hind neck longitudinally streaked with greenish-black and pure white, each feather black in the middle, with the sides white, the colours disposed in lines. The upper surface brownish-black, tinged with green, more or less mottled with white according to age, excepting the primary quills and the tail-feathers, the latter of which are merely paler at the end. The whole under surface pure white, excepting the feathers on the sides under the wings, some of those about the vent, and the lower tail-coverts, which are greyish-brown, with white margins and tips.

Length to end of tail $25\frac{1}{2}$ inches, to end of claws 27; extent of wings $43\frac{1}{2}$; bill $2\frac{2}{12}$; gap $3\frac{3}{8}$; tarsus 3; fourth toe and claw $3\frac{3}{4}$; wing from flexure $11\frac{3}{4}$; tail 3. Weight 4 lbs.

Adult Female in summer.

The female is precisely similar to the male in form and colouring, but is considerably smaller.

Length to end of tail 25 inches, to end of claws $28\frac{1}{12}$; extent of wings 43. Weight 3 lbs.

Male in winter immature.

In this state the principal differences are the following:—The fore part of the neck, instead of being of a uniform rich brownish-red, is merely mottled with that colour; all the feathers of the upper surface have each two white spots towards the end; the tail-feathers are edged and terminated with white; the colouring in general is somewhat less pure and deep, and the bill is of a much paler tint.

Young bird unfledged.

The young are at first covered with a dense elastic down of a greyish-black colour, tinged with brown. The bill is bluish-black, its basal edges yellow; the iris reddish-brown.

The width of the mouth is 10 twelfths; but the lower jaw is dilatable to $1\frac{1}{2}$ inches. On the palate are two papillate ridges, with two series of papillæ on each side of the posterior aperture of the nares, which is oblongo-linear, $1\frac{1}{4}$ inches long, and margined with papillæ. On the anterior part of the upper mandible are three ridges. The tongue is 1 inch 8 twelfths long, very slender, trigonal, flat above, tapering to a horny point. Œsophagus, *a b c*, 14 inches in length, at its commencement $1\frac{1}{2}$ inches in width, but at the lower part of the neck enlarging to 2 inches; on entering the thorax it contracts to $1\frac{1}{2}$ inches; the proventriculus, *b c*, again enlarges to 2 inches, forming a very large ovate sac. The lobes of the liver are very large and nearly equal, the length of the one being 3 inches 10 twelfths, that of the other 3 inches 8 twelfths. The stomach, *c d e f*, is rather large, roundish, 1 inch 9 twelfths in diameter, a little compressed, its lateral muscles rather thin, the lower somewhat prominent. Its contents are remains of fishes, and a great quantity of small stones and pebbles. The epithelium is pretty thick, dense, with numerous longitudinal rugæ. The proventricular glands form a belt 1 inch 10 twelfths in breadth. The intestine is 4 feet 11 inches long; its average width 8 twelfths. The cæca, Fig. 2, *c c*, $2\frac{1}{2}$ inches long, $4\frac{1}{2}$ twelfths broad, towards the end 6 twelfths, with the extremity rounded. The rectum is 2 inches long, with a globular cloaca, *b*, $1\frac{1}{2}$ inches in diameter.

Trachea $11\frac{1}{2}$ inches long, much flattened, from 6 twelfths to 4 twelfths in breadth; the rings 145, with 2 dimidiate. Bronchi moderate, of 20 half rings. Lateral muscles strong; a single series of inferior laryngeal muscles going to the last half ring of the trachea.

Fig. 1.

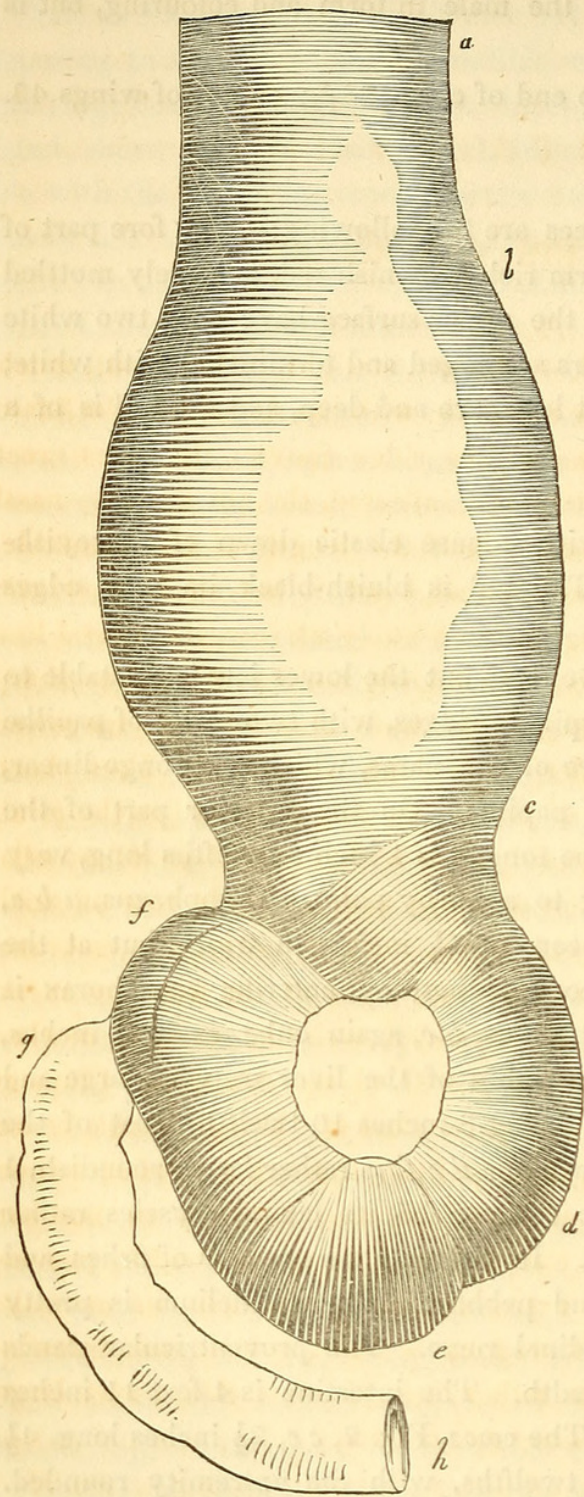
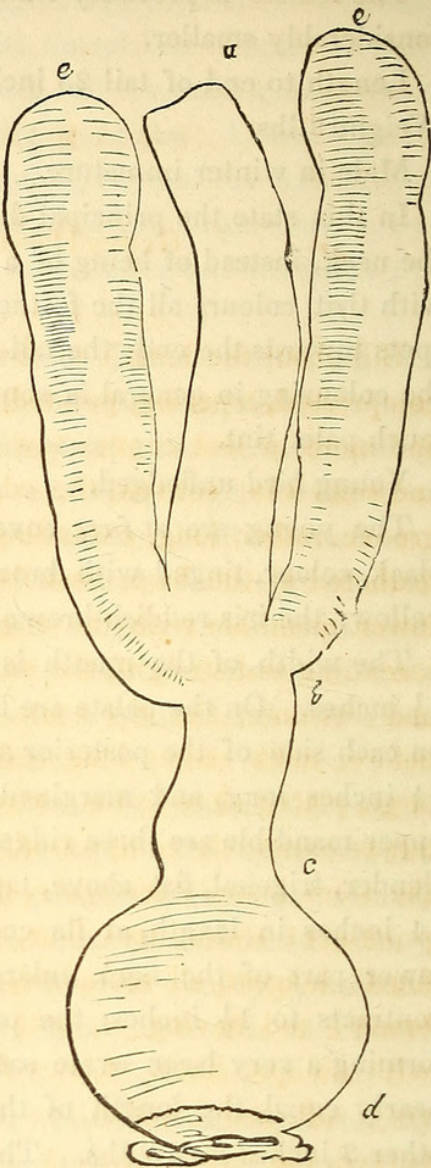


Fig. 2.





Red-throated Diver.

1. Male Summer Plumage. 2. do Winter. 3. Female. 4. Young.

Drawn from Nature by J. Audubon. P.R.S. & L.S.

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Audubon, John James. 1844. "The Red-Throated Diver, Colymbus septentrionalis, Linn. [Pl. 478]." *The birds of America : from drawings made in the United States and their territories* 7, 299–306.

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