## Genus II.-FULICA, Linn. COOT.

Bill as long as the head, nearly straight, stout, deep, compressed, tapering; upper mandible with a soft ovate or oblong tumid plate at the base, extending over the forehead, the dorsal line declinate, toward the tip arcuate, the ridge narrowed to the middle, then slightly enlarged, the sides nearly erect, the edges sharp, the notches obsolete, the tip rather obtuse; nasal sinus extending nearly to the middle; lower mandible with the angle rather long and narrow, the dorsal line ascending, nearly straight, the sides nearly erect, the tip narrow. Nostrils submedial, lateral, linear, direct. Head small, oblong, compressed; neck of moderate length, slender; body full, compressed. Feet large; tibia bare at the lower part; tarsus stout, of moderate length, compressed, with very broad anterior scutella; hind toe rather small and slender; anterior toes very long, their margins dilated into flat lobes; the hind toe with a single inferior lobe. Claws of moderate length, slightly arched, much compressed, acute. Plumage blended, soft. Wings short, broad, convex, with the second quill longest. Tail very short, much rounded, of twelve weak feathers; lower coverts nearly as long. Gizzard extremely muscular; cœca very long, being a fifth part of the length of the intestine.

## THE AMERICAN COOT.

+ Fulica Americana, Gmel.
Plate cCCV.-Male.

From November until the middle of April the Coots are extremely numerous in the southern parts of the Floridas, and the lower portions of Louisiana. At that season they are seen in flocks of several hundreds, following their avocations on all the secluded bayous, grassy lakes, and
inlets, which are so plentiful in those countries; but after the period above mentioned, none remain, and therefore it is certain none can breed there, although such is asserted by Mr. Bartram, who no doubt mistook the Common Gallinule for the Coot, that bird breeding in those places in considerable numbers. During the month of September, the Coot is also abundant on all the western waters, and its appearance in those districts being so much earlier than in the Floridas, is a sure indication of the inland course of its migrations. On the sea-coast, in fact, it is comparatively rare.

Although the curious form of their feet, and the situation of their legs, might induce one to suppose these birds incapable of moving on land with ease, experience proves the contrary, for they not only walk with freedom, but can run with great speed when necessary. They are accustomed to leave the water too, and resort to open lands on the margins of streams and lakes, for the purpose of feeding, both in the morning and in the evening. While ascending the Mississippi, being about fifty miles above New Orleans, on the 21st of March, 1822, the weather cloudy, I had the pleasure of seeing about six or seven hundred of these birds feeding on the grass of a savannah bordering the river. I took them while at some distance for a great flock of Guinea Fowls. Their movements were brisk, they often struck at each other in the manner of the domestic fowl, and ran with surprising celerity. As I approached nearer, I plainly saw them nibble the tender grass, in the same manner as poultry; and having found a place of concealment behind a rise of the ground, I laid myself flat, and observed their motions at leisure; but during twenty minutes spent in that situation, I did not hear a single note from the flock. I fired among them, and killed five, on which the rest, after running a few steps, all rose and flew off with speed towards the river, mounted high in the air, came curving over me, their legs hanging behind, their wings producing a constant whir, and at length alighted on a narrow channel between the shore, where I was, and a small island. Following them with caution, I got sufficiently near to some of them to be able to see them leap from the water to seize the young leaves of the willows that overhung the shores. While swimming, they moved with ease, although not with much speed, and used a constantly repeated movement of the head and neck, corresponding with that of the feet. Now, twenty or thirty of them would close their ranks, and swim up the stream in a lengthened body, when they would disperse, and pick up the floating substances, not one of them diving all the time. On firing at a large group of them that had approached me, they started off in various directions, patting the water with their feet, and rushing with extended wings, for thirty or forty yards, but without actually flying. After this, they made towards the brushy shores, and disappeared for about a quarter of an hour. The rest of the birds, which
were a few hundred yards off, scarcely took notice of the report of the gun; and before I left the place, they had returned to the shore, and walked into another savannah, where they probably remained until night. The next morning not a single Coot could I find while looking for them, for several miles along the river, and I concluded that they had left the place, and continued their migratory journey northward, this being about the beginning of the time of their general departure.

Whilst at General Hernandez's, in East Florida, I found the Coot abundant in every ditch, bayou, or pond. This was in December 1831, and in the next month I saw great flocks of them near the plantation of my friend John Bulow, Esq. Whilst on a visit to Spring Garden Springs, at the head of the St. John's river, I observed them to be equally abundant along the grassy margins of the lagoons and lakes. On my return from the upper parts of that river to St. Augustine, on the 28th February, I saw large flocks of them already moving northward. They had suddenly become shy, and would rise before our boat, at a distance of a hundred yards or so, with apparently scarcely any difficulty, and fly in loose flocks at a considerable height, half a mile or more at a time, and without uttering a note. Indeed, the only sound I ever heard these birds utter, is a rough guttural note, somewhat resembling cruck, cruck, which they use when alarmed, or when chasing each other on the water in anger. I am doubtful whether our Coot cackles and cries by night and by day, as has been reported; on the other hand, I am pretty well assured that Gallinules and Rails of different species have been confounded with the Coot in this respect.

I never saw this species dive for food, and the only fish that I ever found in the many that I have opened, was very small minnows or fry, which I think they catch along the shallow edges of the water. Indeed, unless when wounded, our Coot feels great reluctance at immersing its body in the water; at all events, it has not the quickness of any of the diving birds, and rarely escapes the shot of a common flint gun while attempting to get away. When wounded it dives to some distance, but as soon as it reaches the grass or reeds, it contents itself with lying flat on the water, and thus swimming to the nearest shore, on reaching which it at once runs off and hides in the first convenient place. When undisturbed, it feeds both by day and by night, and as often on land as on the water. Its food consists of seeds, grasses, small fishes, worms, snails, and insects, and along with these it introduces into its stomach a good quantity of rather coarse sand.

The principal breeding places of this species are yet unknown to me. At Charleston it was supposed that it breeds in the neighbourhood of that city; but my friend Bachman while searching for their nests at the proper season, saw that the Common Gallinule was in fact the bird that had been taken for
the Coot. My learned friend Nuttall mentions that a pair had bred in Fresh Pond near Boston, and that he there saw parents and young. Some travelling lumberers assured me that the Coot breeds in numbers in the lakes lying between Mars Hill in Maine and the St. Lawrence river; but I can find no authentic accounts of its nest having been found in any part of the United States, although some probably breed on the borders of our northern lakes.

In Louisiana, this species is named Poule d'Eau, which is also applied to Rallus crepitans. In all other parts of the Union, it is known by the names of Mud Hen and Coot. The appellation of "Flusterers" given to it by Mr. Lawson in his History of South Carolina, never came to my ear, during my visits to that State.

These birds are frequently caught in the nets placed across the bayous of the lakes in the neighbourhood of New Orleans, for the purpose of catching Blue-winged Teals and other Ducks. They come against them while flying, but if the hunter is not extremely quick they make their escape by nimbly scrambling up, using their bill and feet until they reach the outer part of the net, when they drop into the water like so many terrapins. At times they congregate in vast numbers, and swim so closely that a hunter in my employ, while on Lake Barataria, killed eighty at a single shot. They are extremely abundant in the New Orleans markets during the latter part of autumn and in winter, when the negroes and the poorer classes purchase them to make "gombo." In preparing them for cooking, they skin them like rabbits instead of plucking them.

Both old and young birds differ considerably in size and weight. The male, from which I drew the figure in the plate, was procured at General Hernandez's, in East Florida, and was among the best of about thirty shot on one of my excursions there.

Common Соot, Fulica atra, Wils. Amer. Orn. vol. ix. p. 61.
Fulica Americana, Bonap. Syn. p. 338.
Cinereous Coot, Nutt. Man. vol. ii. p. 229.
American Coot, Fulica Americana, Aud. Orn. Biog., vol. iii. p. 291; vol. v. p. 568.
Male, $13 \frac{10}{12}, 25$.
From Texas to the northern parts of Maine. Exceedingly abundant in Louisiana and the Floridas, during winter and spring, where some remain to breed. The greater number breed in Maine and New Brunswick, as well as along the great lakes. Rare in the Middle Atlantic districts. Columbia river.

Adult Male.
Bill about the same length as the head, stout, straight, compressed, higher Vol. V.
than broad at the base. Upper mandible with the dorsal line straight and slightly sloping, towards the end slightly arched and deflected, the ridge flattish at the base, and continuous with an oblong soft tumid plate which ascends on the forehead, the rest of the ridge convex; sides rapidly sloping, edges overlapping, sharp, with a slight notch close to the obtuse tip. Nasal groove wide, extending to two-thirds of the whole length of the mandible, filled with a soft bare membrane; nostrils linear, medial, lateral, direct, pervious. Lower mandible with the angle long, narrow, rounded, the dorsal line nearly straight, the sides flattish, the edges sharp.

Head small, oblong, much compressed. Neck of moderate length, slender. Body rather full, compressed. Feet of moderate length, strong; tibia bare a short way above the joint; tarsus rather short, compressed, broader below, anteriorly covered with broad scutella, laterally with angular scales, on the outer side behind a row of scutelliform scales; hind toe short, slender; middle toe longest, fourth longer than second; toes scutellate above, hind one with an inferior lobe, second with two larger inner and two smaller outer rounded lobes; third with three, fourth with four on each side; claws of moderate length, slightly arched, much compressed, acute, the middle one with a thin inner edge.

Plumage very soft and blended, on the head and neck short. Wings short, broad, rounded; primaries curved, second longest, third little shorter, first rather longer than sixth, all broad and rounded; secondaries broad, rounded with a minute tip, the inner elongated and tapering. Tail very short, much rounded, of twelve weak rounded feathers; the upper and lower coverts nearly as long as the tail-feathers.

Bill greyish-white, with a dusky spot on each mandible towards the end; frontal callosity white during life, brownish-red after death. Head and neck greyish-black, the upper parts deep bluish-grey, with an olivaceous tinge on the scapulars and inner secondaries. Quills greyish-brown, darker towards the tips; the edge of the wings, outer margin of first quill, and tips of outer secondaries, white. Tail brownish-black; lower tail-coverts white. The breast and abdomen are light bluish-grey, the latter paler, the sides darker; the lower surface of the wings of the same dull leaden tint.

Length to end of tail $13 \frac{10}{12}$ inches, to end of wings $14 \frac{3}{12}$, to end of claws $18 \frac{3}{4}$; extent of wings 25 ; wing from flexure $7 \frac{1}{2}$; tail $2 \frac{3}{4}$; bill along the back $1 \frac{7}{12}$, along the edge of lower mandible $1 \frac{2}{12}$; bare part of tibia $\frac{3}{4}$; tarsus 2 ; middle toe $2 \frac{8}{12}$, its claw $\frac{71}{12}$. Weight 1 lb .
In an adult male preserved in spirits, the roof of the mouth is narrow, flattened, with two middle series of acute reversed papillæ, and two lateral elevated lines extending to the tip; the lower mandible deeply concave; the edges of both sharp, and the tips narrow but obtuse. The width of the
mouth is $\frac{1}{2}$ inch. The tongue is fleshy, thick, 11 twelfths long, concave above, with the tip narrowed, but rounded. The œsophagus, $a b c$, is 8 inches long, of the uniform width of $\frac{1}{2}$ inch; the proventriculus 9 twelfths in breadth. The stomach, $c d e$, is a very large, extremely muscular, transversely elliptical, oblique gizzard, $1 \frac{1}{2}$ inches long, 2 inches in breadth; its lateral muscles extremely developed, the right 10 twelfths, the left 1 inch in thickness; the tendons radiated, and covering nearly the whole surface; the inferior and superior muscles narrow and prominent. Its contents are sand and remains of shell-fish. The epithelium forms two large grinding plates, of which the right is concave, the left convex. The intestine, ef $g h i j$, is long and very wide; it first curves along the edge of the stomach to the distance of $4 \frac{1}{4}$ inches, returns to the liver, runs along the right side to the extremity of the abdomen, is convoluted in an elliptical form, with 12 folds. Its length is 4 feet 8 inches, its width from $\frac{1}{2}$ inch to $3 \frac{1}{2}$ twelfths, toward the rectum enlarging to $\frac{1}{2}$ inch, and so continuing to the end. The
 cœca are extremely elongated, being 11 inches in length, for 2 inches at the commencement only 2 twelfths in width, afterwards 4 twelfths, and again contracting to 2 twelfths, toward the end, which is obtuse; their distance from the extremity 4 inches. There is no cloacal dilatation.

The extremely developed gizzard, with its large grinding surfaces, the very long and wide intestine, and the extraordinarily large cœca, together with the uniform undilated rectum, indicate the most direct proximity to
the Gallinaceous birds. The digestive organs, however, differ from those of the Rasores in one essential respect, namely, in there being no crop, or dilatation of the œesophagus. They are also very nearly allied to those of the Ducks, differing only in having the cœca proportionally larger. The Anatinx in fact are in some respects aquatic Gallinaceæ.

The trachea is $6 \frac{1}{4}$ inches long, from $4 \frac{1}{2}$ twelfths to 2 twelfths in breadth, flattened, with the rings feeble, until 1 inch from the lower extremity, when it becomes laterally compressed, with the rings much narrower. The number of these is 154 . Bronchi very short, of 20 half rings, which are not ossified as in the Grebes, but cartilaginous. The rings of the trachea are narrowed in the middle, in front and behind, so as to be perfectly flexible there, as well as on either side. The lateral muscles are moderate. There are no inferior laryngeal muscles, excepting on each side a very thin slip going to the last ring.

I found this species very abundant in Texas, in May, 1837. It breeds in Maine and Massachusetts.

Genus III.-ORTYGOMETRA, Leach. CRAKE-GALLINULE.

Bill shorter than the head, rather stout, deep, compressed, tapering; upper mandible with the dorsal line nearly straight, being slightly convex toward the end, the ridge flattish for a short space at the base, very slightly extended on the forehead, narrow in the rest of its extent, the sides nearly erect, the edges sharp, with a slight sinus close to the rather obtuse tip; nasal groove broad and extending to two-thirds; lower mandible with the angle long and narrow, the dorsal line ascending, nearly straight, the sides erect, the tip narrowed. Nostrils linear, lateral, submedial. Head rather small, oblong, compressed; neck of moderate length; body rather slender, much compressed. Feet of moderate length, rather stout; tibia bare below; tarsus of ordinary length, compressed, with broad anterior scutella; hind toe short and slender, anterior toes very long, compressed, scutella, the outer slightly longer than the inner. Claws of moderate length, slender, extremely compressed, tapering to a fine point. Plumage rather stiff, but blended; feathers of the forehead with the shaft enlarged. Wings short and broad, somewhat convex, the second quill longest. Tail extremely short, much rounded, of twelve weak feathers. Digestive organs as in Gallinula.


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Audubon, John James. 1842. "The American Coot, Fulica americana, Gmel. [PI. 305]." The birds of America : from drawings made in the United States and their territories 5, 138-144. https://doi.org/10.5962/p.319419.

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