only $2\frac{1}{2}$ twelfths; on their inner surface are six longitudinal villous ridges, the intervals between which are also covered with prominent villi, as is the whole interior of the intestine. There is no enlargement of the rectum.

The trachea is $5\frac{1}{2}$ inches long, much flattened, at first 3 twelfths in breadth, presently contracting to $2\frac{1}{4}$ twelfths, and so continuing until toward the lower end, where it gradually enlarges to $3\frac{1}{4}$ twelfths. The rings are very feeble, slightly ossified, 102 in number, with 2 dimidiate rings. The lateral muscles are slender, as are the sterno-tracheal. There are no inferior laryngeal muscles.

TRILLIUM PICTUM, *Pursh*, Flor. Amer. Sept., vol. i. p. 244.—HEXANDRIA TRIGYNIA, *Linn.*

This plant, as well as the other species represented, grows abundantly in Maine, in all such secluded places as are frequented by the Spotted Grouse, which eagerly devours its berries. It has ovate acuminate leaves, of a light green colour, thin and undulated; an erect peduncle; white flowers, veined with purple at the bottom, and having the petals lanceolate, recurved, nearly twice the length of the calyx. The berries are ovate and of a scarlet colour.

STREPTOPUS DISTORTUS, *Mich.*, Flor. Amer., vol. i. p. 200. *Pursh*, Flor. Amer. Sept., vol. i. p. 232.—HEXANDRIA MONOGYNIA, *Linn.*

About two feet high, with alternate, amplexicaul, ovate, acute, ribbed, light green leaves; greenish-yellow flowers, on pedicels which are distorted in the middle; and oval scarlet berries.

DUSKY GROUSE.

+TETRAO OBSCURUS, *Say*.

PLATE CCXCV.—MALE AND FEMALE.

As I have never seen this species in its native haunts, I am obliged to have recourse to the observations of those who have had opportunities of studying its habits. The only accounts that can be depended upon are those of Dr. RICHARDSON, Mr. TOWNSEND and Mr. NUTTALL, which I here give

in order, beginning with what is stated respecting it in the *Fauna Boreali-Americana* by the first of these naturalists.

"This large Grouse inhabits the Rocky Mountains from latitude 40° to 60°, and perhaps to a greater extent, for the limits of its range either northward or southward have not been ascertained. It has been known to the fur-traders for nearly thirty years; but it was first introduced to the scientific world by Mr. SAY, who, in 1820, accompanied Major LONG to the source of the Missouri; and a female specimen, deposited by him in the Philadelphia Museum, has lately been figured by the Prince of MUSIGNANO in his continuation of WILSON's Ornithology. I had no opportunity of observing the habits of this bird myself, but was informed by Mr. DRUMMOND that, in the mornings during pairing time, "the usual station of the male is on some rocky eminence or large stone, where he sits swelling out the sides of his neck, spreading his tail, and repeating the cry of "Coombe, Coombe," in a soft hollow tone." Its food consists of various berries, and its flesh is very palatable. Mr. ALEXANDER STEWART, a chief-factor of the Hudson's Bay Company, who has often crossed the mountains, informs me that the males of this species fight each other with such animosity, that a man may take one of them up in his hand before it will quit its antagonist."

Dr. RICHARDSON adds in a note, that "the description and figure of Mr. SAY's specimen agree so completely with our younger female specimens, that there can be no doubt of their specific identity; but it is proper to observe that there is some discrepancy in the dimensions. The Prince of MUSIGNANO states the total length of the bird to be eighteen inches, that of the wing nine inches and a half. The wing of the largest of our males is scarcely so long; while the biggest of our females, measuring twenty-one inches in total length, has a wing barely eight inches long. This, perhaps, merely indicates the uncertainty of measurements taken from prepared specimens. Mr. DOUGLAS's specimens in the Edinburgh Museum are of younger birds than ours, but evidently the same species." These remarks correspond with what I have so often repeated, that age, sex, and different states of moult, produce disparities in individuals of the same species.

Mr. TOWNSEND, in the notes with which he has favoured me, has the following observations:—"Dusky Grouse, *Tetrao obscurus*. *Qul-al-lalleun* of the Chinooks. First found in the Blue Mountains, near Wallah Wallah, in large flocks, in September. Keep in pine woods altogether, never found on the plains; they perch on the trees. Afterwards found on the Columbia river in pairs in May. The eggs are numerous, of a cinereous-brown colour, blunt at both ends, and small for the size of the bird. The actions of the female, when the young are following her, are precisely the same as the

Ruffed Grouse, using all the arts of that bird in counterfeiting lameness, &c. Female smaller than the male, lighter coloured, and wants the yellow warty skin upon the sides of the neck."

Mr. NUTTALL's notice is as follows:—"The Dusky Grouse breeds in the shady forests of the Columbia, where we heard and saw them throughout the summer. The male at various times of the day makes a curious uncouth tooting, almost like the sound made by blowing into the bung-hole of a barrel, *boo, wh'h, wh'h, wh'h, wh'h*, the last note descending into a kind of echo. We frequently tried to steal on the performer, but without success, as, in fact, the sound is so strangely managed that you may imagine it to come from the left or right indifferently. They breed on the ground, as usual, and the brood keep together nearly all winter. The Ruffed Grouse also breeds here commonly, and I one day found the nest concealed near a fallen log, but it was at once forsaken after this intrusion, though I did not touch the eggs."

From the examination of specimens in my possession, I am persuaded that this species, like *Tetrao Cupido*, has the means of inflating the sacs of bare skin on the sides of the neck, by means of which, in the breeding season, are produced the curious sounds above described.

TETRAO OBSCURUS, Say, Long's Exped.

TETRAO OBSCURUS, Bonap. Syn., p. 127.

DUSKY GROUSE, *Tetrao obscurus*, Bonap. Amer. Orn., vol. iii. pl. 18.

TETRAO OBSCURUS, *Dusky Grouse*, Swains. & Rich. F. Bor. Amer., vol. ii. p. 344.

DUSKY GROUSE, Nutt. Man., vol. i. p. 666.

DUSKY GROUSE, *Tetrao obscurus*, Aud. Orn. Biog., vol. iv. p. 446.

Male, 22, wing $9\frac{1}{2}$. Female, $19\frac{1}{2}$, wing 9.

From the eastern spurs of the Rocky Mountains to the Columbia river, and northward to Hudson's Bay. Abundant. Resident.

Adult Male.

Bill short, robust, slightly arched, rather obtuse, the base covered by feathers. Upper mandible with the dorsal line convex and declinate, the ridge convex, the sides convex, the edges sharp and overlapping, the tip thin-edged and rounded; lower mandible with the angle long and wide, the dorsal line ascending and convex, the ridge broad, the sides convex, the edges inflected, the tip rounded. Nostrils in the fore part of the large and feathered nasal depression, roundish.

Head small, ovate; neck of ordinary length; body large and full. Feet stout, of moderate length; tarsus short, feathered; toes stout; the first very small, the lateral about equal, and much shorter than the third; the anterior toes connected by basal scaly membranes, partially covered with feathers; all

with broad and short scutella, margined, but scarcely pectinate, the lateral scales not being prominent. Claws rather large, arched, compressed, rather obtuse.

Plumage full, soft, rather blended, the feathers broad and rounded. A bare papillate space around the eye. Feathers on the upper part of the head narrow and elongated. Wings rather short, convex, much rounded; the quills very strong; the third longest, the fourth next, the third and sixth about equal, as are the first and seventh. Tail large, of ordinary length, rounded, of twenty feathers, which are broader toward the end, and abruptly rounded.

Bill brownish-black, lighter at the base. Iris dark hazel. Toes bluish-grey, claws wood-brown. Papillar space around the eye vermilion. Upper parts blackish-brown, the wings lighter. The elongated feathers on the head greyish-brown; the hind neck minutely undulated with bluish-grey; the scapulars, inner secondaries, and smaller wing-coverts also minutely undulated with grey and brownish-red, and most of the latter with a small greyish tip; the rump and upper tail-coverts obscurely undulated with grey. Alula, primary coverts and quills, clove-brown, the secondaries bordered and tipped with yellowish-grey; the primaries mottled with grey on their outer webs. The tail is black. The sides of the head, fore part and sides of the neck, and fore part of the breast greyish-black; the lore and throat are barred with white; the greyish-black of the breast passes into blackish-grey, and finally into dull bluish-grey; the feathers of the abdomen tipped with greyish-white, as are the lower rump and tail-coverts, which have moreover one or two narrow bars of the same; the flanks undulated with black and marked with an elongated white spot along the central part and on the tip; axillary feathers white, as are the inner wing-coverts; the tarsal feathers brownish-grey. The concealed part of the plumage is light grey, unless on the feathers around the bare space on each side of the neck, which is of an orange colour, and which the bird inflates.

Length to end of tail 22 inches, to end of wings $15\frac{1}{2}$; to end of claws $18\frac{1}{2}$; extent of wings 30; wing from flexure $9\frac{1}{2}$; tail $7\frac{1}{2}$; bill along the ridge 1, along the edge of lower mandible $1\frac{2\frac{1}{2}}{12}$; tarsus $1\frac{9}{12}$; hind toe $\frac{6}{12}$, its claw $\frac{6}{12}$; second toe $1\frac{2}{12}$, its claw $\frac{7}{12}$; third toe $1\frac{10}{12}$, its claw $\frac{8\frac{1}{2}}{12}$; fourth toe $1\frac{3}{12}$, its claw $\frac{6\frac{1}{2}}{12}$.

Female.

The female is considerably smaller than the male. The bare papillar space over the eye is of much less extent, but, as well as the bill and feet, is coloured as in the male. The upper parts are dark greyish-brown, barred on the neck with grey, or the other parts barred and minutely undulated with yellowish-brown; the wings as in the male, but lighter and more

mottled; the tail greyish-brown, becoming black toward the end, the middle feathers undulated like the back, and having four grey bands with a terminal white one. The sides of the head and the throat are greyish-white, undulatingly barred with brown; the general colour of the fore-neck is greyish-brown, with pale sienna bands; on the breast the colour is brownish-grey, and the colours and markings of the rest of the under parts are as in the male, but paler.

Length to end of tail $19\frac{1}{4}$ inches; wing from flexure 9; tail $6\frac{1}{4}$; bill along the ridge $\frac{1}{2}$.

In a specimen in my possession, killed by Mr. TOWNSEND on the "Columbia river, Sept. 26, 1834," the tail is considerably rounded, the lateral feathers being 7 twelfths shorter than the longest remaining, the middle feathers being lost. The tail is deep black, with a terminal band of ash-grey, half an inch in breadth. It is therefore probable, that when the tail is unworn, it is distinctly rounded, and tipped with grey.

THE PINNATED GROUSE.

†TETRAO CUPIDO, *Linn.*

PLATE CCXCVI.—MALES AND FEMALE.

It has been my good fortune to study the habits of this species of Grouse, at a period when, in the district in which I resided, few other birds of any kind were more abundant. I allude to the lower parts of the States of Kentucky, Indiana, Illinois and Missouri. Twenty-five years and more have elapsed since many of the notes to which I now recur were written, and at that period I little imagined that the observations which I recorded should ever be read by any other individuals than those composing my own family, all of whom participated in my admiration of the works of Nature.

The Barrens of Kentucky are by no means so sterile as they have sometimes been represented. Their local appellation, however, had so much deceived me, before I travelled over them, that I expected to find nothing but an undulated extent of rocky ground, destitute of vegetation, and perforated by numberless caverns. My ideas were soon corrected. I saw

Dusky Grouse.
 1. Male. 2. Female.

Audubon, John James. 1842. "Dusky Grouse , Tetrao obscurus, Say. [Pl. 295]."
The birds of America : from drawings made in the United States and their territories 5, 89–93. <https://doi.org/10.5962/p.319409>.

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