curve, *c e f g*, and is then convoluted or coiled in numerous folds. The rectum is $5\frac{1}{4}$ inches long; the cœca 11 inches, their greatest diameter 6 twelfths, for 2 inches at the commencement 2 twelfths, towards the end $2\frac{1}{2}$ twelfths, their extremity rounded.

The trachea, *h*, is $7\frac{1}{2}$ inches long; its diameter at the upper part 4 twelfths, gradually diminishing to $3\frac{1}{2}$ twelfths; it then enlarges to 5 twelfths, and contracts to $3\frac{1}{2}$ twelfths at the commencement of the dilatation of the inferior larynx, which is extremely similar to that of the Widgeon, but larger; there being an enlargement, *i*, formed by a number of the lower rings united, and to the left side a rounded bony tympanum *j*; the greatest transverse diameter of this part, from *i* to *j*, is 1 inch 1 twelfth. The bronchi, *k k*, are of moderate size, covered with a dense layer of adipose matter.

AMERICAN WIDGEON.

+ANAS AMERICANA, *Gmel.*

PLATE CCCLXXXIX.—MALE AND FEMALE.

This lively and very handsome Duck is abundant during winter at New Orleans, where it is much esteemed on account of the juiciness of its flesh, and is best known by the name of *Zinzin*. In the Western Country, and in most parts of the Eastern and Middle States, it is called the *Bald Pate*. Early in September it enters the United States by their northern extremities, as well as from Texas; and in both these regions it is now well known to breed in nearly equal numbers. Those which retreat south-westward remain along the coast and in the interior of the Floridas, as well as all that portion of the Gulf of Mexico extending to the mouths of the Mississippi, where they remain until the latter part of April, sometimes even until the middle of May, as they have but a comparatively short journey to perform in order to arrive in Mexico in time to breed. On the coast of the Atlantic they keep in the marshes in company with various species of the same family, being in a manner indifferent as to their associates. During early spring, in Louisiana, they are often seen alighted on extensive plains that have very little water on them.

While advancing along the shores of the Gulf of Mexico, in April 1837, I and my party observed this species in considerable numbers; and during the whole of our stay in Texas, we daily saw and very frequently procured Widgeons. There they were found in ponds of brackish water, as well as in the fresh-water streams. Before we left that country they were all paired, and I was informed by the Honourable M. FISHER, Secretary to the Texian Navy, that a good number of them breed in the maritime districts, along with several other Ducks, and that he annually received many of the young birds. Their manners at this time fully proved the correctness of the statements of all those who spoke to me on this subject. Indeed my opinion is that some of these birds also propagate in certain portions of the most southern districts of the Floridas, and in the Island of Cuba, as I have seen Widgeons in the peninsula in single pairs, in the beginning of May.

Their retrograde movements in spring, like those of other species, depend much upon the temperature or the advance of the season; and those which proceed northward set out on their journey much earlier than those which move in the opposite direction, the former departing from the middle of March to the 20th of April. Their first appearance on the waters of the Ohio takes place late in September or early in October, when they at once throw themselves into the ponds of the interior, and there remain until the waters are closed by ice, scarcely any betaking themselves to the rivers, unless to repose on the sand-bars. They are there, however, less abundant than nearer the sea-coast, and usually associate with Pintails and Teals, but rarely with Mallards or Dusky Ducks. Whilst in those retired ponds of the forest, from one to another of which they roam in quest of food, they are less noisy than most other species, even than the Pintails, and in this respect resemble the Blue-winged Teals, whose notes are feeble and delicate. Those of the Widgeon are a soft whistle, somewhat similar to the word *sweet*, enunciated as if produced by a flute or a hautboy, and in my judgment not at all like the *hew hew* spoken of by WILSON. They are less shy in those retired places than most species, or are to appearance less aware of the danger of allowing the sportsman to approach them.

In feeding they immerse their neck and the anterior part of the body, generally swimming closer together than other Ducks, in consequence of which habits they are easily neared and often shot in great numbers at a single discharge. During their stay in those districts they feed on the roots and seeds of grasses, water-insects, beech-nuts, small fry, and leeches, and are not so delicate as an article of food as those procured in the rice-fields of South Carolina, or in the plantations of Louisiana and Florida. On their return in spring (for in mild winters they remain all the season in Kentucky), they generally continue until the end of April, and usually pair

before they depart; which induces me to believe that numbers of them breed within the northern limits of the United States, although I have not heard of any having actually been seen doing so.

On the lakes near New Orleans, as well as on the Chesapeake, they are not unfrequently found in company with the Canvass-back Ducks. WILSON mentions their being partially supplied with food by the industry of the latter; but they manage very well in most parts without such assistance. When in full security, the Bald-pates feed at all hours of the day; but in thickly inhabited parts of the country, they usually seek for food at night or early in the morning.

The flight of this species is rather swift, well sustained, and accompanied by the whistling sound of the wings usual in birds of this family. They move in flocks of moderate size, and without much care as to the disposition of their ranks, being sometimes extended into a front line, sometimes in single file, frequently mingled confusedly, and flying at a moderate height, whether over the land or over the water. When they are first started, they fly almost perpendicularly, in a hurried and rather irregular manner. They walk prettily and with ease. After heavy falls of rain in our Southern States, they often alight in the corn-fields, in company with other Ducks, where the ploughed earth, being quite moist and soft, yields them an abundant supply of worms and insects, as well as grains of corn, peas, and other equally nutritious substances.

Dr. RICHARDSON informs us that this species breeds in the woody districts of the Fur Countries, up to their most northern limits, in latitude 80°; and Mr. TOWNSEND states that it is abundant on the Columbia river; but he has not furnished me with any account of its breeding, and I have not had an opportunity of observing it during the season of propagation, as I left Texas without having found a nest or young.

AMERICAN WIDGEON, *Anas americana*, Wils. Amer. Orn., vol. viii. p. 86.

ANAS AMERICANA, Bonap. Syn., p. 384.

MARECA AMERICANA, Steph. American Widgeon, Swains. and Rich. F. Bor. Amer., vol. ii. p. 445.

AMERICAN WIDGEON, *Anas americana*, Nutt. Man., vol. ii. p. 389.

AMERICAN WIDGEON, *Anas americana*, Aud. Orn. Biog., vol. iv. p. 337.

Male, 20½, 34½. Female, 18, 30.

Breeds in Texas, and in the Northern Districts. Abundant in the south and west in winter. Columbia river. Middle Atlantic districts in autumn and spring.

Adult Male.

Bill nearly as long as the head, deeper than broad at the base, depressed

towards the end, the sides nearly parallel, the tip rounded. Upper mandible with the frontal angles short and obtuse, the dorsal line at first sloping, then concave, at the end decurved, the ridge broad and flat at the base, then broadly convex, the edges soft, with about fifty-five internal lamellæ, the unguis obovate, curved abruptly at the end. Nostrils sub-basal, lateral, near the ridge, oblong, pervious. Lower mandible flattened, its angle very long and rather narrow, the dorsal line very short, slightly convex, the edges soft, with about seventy lamellæ.

Head of moderate size, oblong, compressed. Neck rather long, slender. Body elongated and slightly depressed. Feet very short; tibia bare for about a quarter of an inch; tarsus very short, compressed, anteriorly with two series of scutella, the outer shorter, the rest covered with reticulated angular scales; toes obliquely scutellate above; first very small, free, with a narrow membrane beneath; third longest, fourth considerably shorter, second shorter than fourth; their connecting webs entire, on the edge crenate; the second or inner toe with a membranous margin. Claws small, slightly arched, compressed, rather acute; the hind one very small and more curved, that of the middle toe curved outwards, and having the inner edge dilated.

Plumage dense, soft, blended. Feathers of the head and upper neck oblong, small, those along the crown and occiput longer; of the lower parts ovate, glossy, with the extremities of the filaments stiffish. Wings rather long, little curved, narrow, pointed; the first quill longest, the next scarcely shorter, the rest rapidly graduated; secondaries very short, broad, obliquely rounded; the inner elongated and tapering; the tips of the filaments of the outer web of the first primary are separated and curved a little outwards. Tail short, rounded and pointed, of sixteen feathers, of which the middle pair are more pointed and project considerably.

Bill light greyish-blue, with the extremity including the unguis, and a portion of the margins, black. Iris hazel. Feet light bluish-grey, the webs darker, the claws dusky. The upper part of the head is white, more or less mottled with dusky on its sides; the loreal space and cheeks reddish-white, dotted with greenish-black; a broad band from the eye to behind the occiput deep green. The lower part of the hind neck, the scapulars, and the fore part of the back, are minutely transversely undulated with brownish-black and light brownish-red; the hind part similarly undulated with blackish-brown and greyish-white. The smaller wing-coverts are brownish-grey; the primary quills and coverts dark greyish-brown; the secondary coverts white, tipped with black. The speculum is duck-green anteriorly, bounded by the black tips of the secondary coverts, black behind, internally black, with white streaks, the inner elongated secondaries having their outer webs black, margined with white, their inner webs brownish-grey. The tail-

feathers are light brownish-grey. The throat is brownish-black; the lower part of the neck in front, and the fore part of the breast, light brownish-red; the breast, belly, and sides of the rump, white; the sides of the body finely undulated with white and dusky; the rump beneath and the lower tail-coverts black.

Length to end of tail $20\frac{1}{2}$ inches, to end of claws 21; extent of wings $34\frac{1}{2}$; bill to frontal processes $1\frac{7}{12}$, along the edge of lower mandible $1\frac{7}{12}$; wing from flexure 11; tail $4\frac{1}{2}$; tarsus $1\frac{7}{12}$; hind toe $\frac{4}{12}$, its claw $\frac{2\frac{1}{2}}{12}$, middle toe $1\frac{8}{12}$; its claw $\frac{4\frac{1}{2}}{12}$. Weight 1 lb. 14 oz.

Adult Female.

The female is considerably smaller. The bill, feet, and iris are coloured as in the male. The head and upper part of the neck all round, are white or reddish-white, longitudinally streaked with brownish-black, the top of the head transversely barred; the lower part of the neck in front and behind, the fore part of the back, and the scapulars, are blackish-brown, the feathers broadly margined with brownish-red, and barred with the same, the bars on the back narrow; the hind part of the back dusky; the upper tail-coverts barred with white. The wings are greyish-brown; the secondary coverts tipped with white; the secondary quills are brownish-black, the inner greyish-brown, all margined with white. The tail-feathers are greyish-brown, margined with white. All the lower parts are white, excepting the feathers of the sides, and under the tail, which are broadly barred with dusky and light reddish-brown.

Length to end of tail 18 inches, to end of claws $19\frac{1}{2}$; extent of wings 30; bill along the ridge $1\frac{6}{12}$; wing from flexure $9\frac{8}{12}$; tail $3\frac{9}{12}$; tarsus $1\frac{6}{12}$; middle toe $1\frac{9}{12}$, its claw $\frac{3}{12}$. Weight 1 lb. 5 oz.

A very great diversity of colouring exists in this species, which, however, is not yet properly understood. Although males are often found as described above, and as represented in the plate, others have a very different appearance. Thus, an individual shot at the mouth of the Mississippi, in the beginning of April 1837, has the head and neck brownish-orange, the feathers all minutely tipped with dark green, the lower fore neck lilac; all the upper parts finely undulated with white and dusky, as are the sides; the wing-coverts light brownish-grey; the other parts as described above, but the upper tail-coverts black at the end. In some individuals the top of the head is reddish-white, in others light red, in others pure white; in some, most of the smaller wing-coverts are white, in others grey or brownish-grey; in some the throat is whitish, in others black. These differences, no doubt, depend upon age and season:

The American Widgeon has been considered distinct from the European; not on account of any difference in size or form, or texture of plumage, but

because it has in certain stages a green band on the side of the head, which the European bird is said not to have. The mirror is the same in both; the wing-coverts are white or grey in both; the crown is white, or cream-coloured, or orange-brown, in both; but in the European the head and neck are described as reddish-chestnut, and in the American as yellowish-white. Now, in fact, American birds sometimes have the head and neck red, and European birds sometimes have the green streak on the side of the head. In short, on comparing specimens from America, with others from India and Norway, I cannot perceive any essential difference. At the same time, not having traced our Widgeon through all its gradations, and being equally unacquainted with all those of the European and Asiatic Widgeon, I cannot *positively* affirm that *Anas Americana* is identical with *Anas Penelope*.

A male preserved in spirits presents the following characters.

The roof of the mouth is deeply concave, with a median prominent line, and numerous irregular small tubercles on the sides, with several larger ones at the fore part. Two large branches of the supra-maxillary nerve run in this ridge, as in other Ducks. The tongue is 1 inch 5 twelfths long, with numerous straight, pointed papillæ at the base, a median longitudinal groove, and a thin broadly rounded point. The œsophagus, *a b c d*, is 10 inches long, narrow, dilating a little on the lower part of the neck, where its diameter is $\frac{1}{2}$ inch. The proventriculus, *b c*, is 8 twelfths broad; its glands oblong, 2 twelfths in length, and occupying a belt 1 inch 4 twelfths in breadth. The gizzard, *e f g*, is extremely large, of a nearly regular elliptical form, placed obliquely, its length 1 inch 8 twelfths, its breadth $2\frac{1}{2}$ inches; its lateral muscles extremely large, the left, *e*, 1 inch 2 twelfths in thickness, the other, *f*, 1 inch and 1 twelfth; the inferior muscle, *g*, only 1 twelfth. In the œsophagus are contained slender leaves of grasses; in the gizzard some of these leaves and other vegetable matters, small seeds, and a great quantity of sand. The cuticular lining or epithelium is dense, slightly rugous, much thickened on the spaces opposite the middle of the lateral muscles. The duodenum, *g h i*, is $5\frac{1}{2}$ inches in its first curve, *g h*, and is then reflected for 7 inches, passes backwards under the kidneys and forms several convolutions. The intestine, *g h i j k l*, is 6 feet 2 inches long, $\frac{1}{2}$ inch in diameter in its duodenal portion, gradually contracts to 4 twelfths at the distance of 18 inches from the pylorus, again enlarges to 5 twelfths, and near the rectum to 7 twelfths. The rectum is $4\frac{1}{2}$ inches long; the cœca 9 inches, their diameter for nearly 2 inches being 2 twelfths, after which they are enlarged, their greatest diameter being 4 twelfths. The liver is large, the right lobe being $3\frac{1}{2}$ inches long, the left $2\frac{1}{2}$.

The trachea, *m*, is $7\frac{1}{2}$ inches long, of moderate diameter, the rings roundish and ossified, about 140 in number, its breadth at the top $4\frac{1}{2}$ twelfths,

gradually diminishing to 3 twelfths. At the lower part several of the rings are united so as to form an irregular dilatation, bulging out into a rounded sac, *n*, on the left side, its greatest diameter being 10 twelfths. The bronchi are of moderate length, wide, with about 25 half rings. The contractor muscles are rather strong; and besides the sterno-tracheals, *o p*, there is a pair of cleido-tracheals.

In a female, the gizzard is 2 inches in its greatest diameter; the intestine is 5 feet 2 inches long. The contents of the œsophagus and stomach as in the male.

THE PINTAIL DUCK.

+ANUS ACUTA, *Linn.*

PLATE CCCXC.—MALE AND FEMALE.

The first observation that I made on arriving at Labrador, was that no species of Ducks, excepting those which were entirely or chiefly oceanic, seemed to resort to that coast, and I left the country with the same impression. We saw no Mallards, Teals, Widgeons, or Wood Ducks there; nor any species of Merganser, excepting the Red-breasted, which is a marine bird. The Pintail Duck, then, was not seen in the parts of that country which I visited; nor was it known in Newfoundland, on the Magdeleine Islands, or in the British province of Nova Scotia, at least along its Atlantic boundaries. In Kentucky and the whole of the Western Country, where it is extremely abundant in early autumn, during winter, and up to a very advanced period in spring, you meet with it wherever its usual food is found. It follows the waters of the Mississippi to New Orleans, is seen westward in the prairies of Opelousas, and extends to the eastward as far as Massachusetts, beyond which, like the Mallard, it is very seldom seen. Indeed, this species is at all times rare on the sea coast of America, and must therefore be considered as an inland bird.

The Pintail, which, in the United States, is better known by the name of Sprigtail, arrives on the western waters early in October, sometimes even about the middle of September, the period of its arrival depending on the

1. Male 2. Female
American Widgeon

Audubon, John James. 1843. "American Widgeon, *Anas americana*, Gmel. [Pl. 389]." *The birds of America : from drawings made in the United States and their territories* 6, 259–266. <https://doi.org/10.5962/p.319502>.

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