margin. Neck rather short. Body full. Feet short, robust; tarsi roundish, anteriorly feathered half way down, and scutellate, posteriorly also scutellate; toes of moderate length, scaly for half their length; claws long, arched, compressed, acuminate. Plumage full and rather blended. Space between the bill and eye covered with bristly feathers. Wings long, broad, the fourth quill longest, the first and seventh or eighth about equal; the first four abruptly cut out on the inner web. Tail rather long, broad, slightly rounded. Cere and feet yellow; bill light blue at the base, black at the tip, in all the American species.

HARRIS'S BUZZARD.

+*BUTEO HARRISII*, Aud.

PLATE V.

The varying modes of flight exhibited by our diurnal birds of prey have always been to me a subject of great interest, especially as by means of them I have found myself enabled to distinguish one species from another, to the farthest extent of my power of vision. On considering this matter, I have become fully convinced that a greater length of the wings in any one species is not, as most naturalists have imagined, an indication of its greater power of flight. Writers of the present day who, judging of the flight of birds from such circumstances, think that those species which have longer and, as they suppose, more complete wings, fly with more rapidity than those whose wings are comparatively short, are, in my opinion, quite mistaken. They judge in this matter, not from experience, but from appearance, having previously determined theoretically that a long wing is a more efficient instrument than a short one; and being acquainted with birds only through the medium of skins and feathers, presume to inform us as to their comparative agility. The power of flight in birds of any kind depends not upon the length, amplitude, or shape of the wings, but upon the rapidity with which these members are moved, and the muscular energy applied to them. It is not a little surprising to me that not one of the authors who have written on this subject, has spoken of the mode of flight of our Turkey-Buzzard, which, notwithstanding its very ample wings, is one of the very slowest birds; for, although it manages to rise to a great height, all its movements are laborious and heavy, unless when it is at some considerable elevation. The amplitude of its wings serves it in sailing only, never in enabling it to pass swiftly

through the air, as birds of much shorter wings, but greater muscular energy, are wont to do.

The Golden Eagle, which has universally been considered as a bird of most extraordinary powers of flight, is in my estimation little more than a sluggard, though its wings are long and ample. It is true that it can sustain itself for a very considerable time on wing, but the observer cannot fail to see that, instead of being swift, it moves slowly and somewhat heavily. For this reason it is rarely seen to give chase on wing, but depends more on the weight of its body while falling or swooping on its prey from a certain height than upon any dexterity or velocity of flight. Eagles while swooping do not use their wings as a medium of propelling themselves farther than by nearly closing them, that they may descend with more rapidity, in doing which they produce a loud rustling noise, which I have often thought has a tendency to frighten the quarry so much as to render it unable to seek for safety by flight or speed of foot. The Golden Eagle can, indeed, soar to a very great height, but this it accomplishes by a circling or gyratory flight of a very slovenly character, and not much superior to that of Vultures or birds still more nearly allied to itself. Thus, reader, I would look on this celebrated bird as one of the slowest and heaviest of its tribe; and would place next in order our Red-tailed Hawk, *Falco borealis*, which being also possessed of ample wings, of considerable length, moves through the air and pounces upon its prey in a similar manner. Then in succession will come the Black Warrior, *Falco Harlani*; the Broad-winged Hawk, *F. Pennsylvanicus*; the Red-shouldered Hawk, *F. lineatus*; the Common Buzzard, *Buteo vulgaris*; and the Rough-legged Falcon, *F. lagopus* or *F. Sancti-Johannis*, which is in a manner the very counterpart of the Golden Eagle, as well as every other species endowed with no greater powers, and furnished with wings and tails of similar size and form; although, of course, some slight differences are to be observed in these different species, on all of which I would willingly bestow the distinctive name of *Swoopers*. All these birds are more or less indolent; one might say they are destitute of the power of distinguishing themselves in any remarkable manner, and none of them shew a propensity to remove to any great distance from the place of their birth, unless, indeed, when very hard pressed either by want of food or by very intense cold.

The next group, which attracts the attention of the American ornithologist, is that composed of such birds as are provided with longer and almost equally broad wings, but assisted by more or less elongated and forked tails. Of this kind are our Swallow-tailed Hawk, *Falco furcatus*; the Black-shouldered Hawk, *F. dispar*; and the Mississippi Kite, *F. Mississippiensis*. These species assume what I would call a flowing manner of flight, it being ex-

tremely graceful, light, buoyant, and protracted beyond that of most other hawks. They are, however, devoid of the power of swooping on their quarry, which they procure by semicircular glidings of greater or less extent, according to the situation or nature of the place, over the land or the water, on the branches or trunks of trees, or even through the air, while in the latter they are wont to secure large coleopterous insects. These species are provided with short, strong tarsi, are scarcely able to walk with ease, wander to great distances, and possess very little courage.

After these long-winged fork-tailed hawks, comes the Marsh Hawk, *Falco cyaneus*, which, by its easy manner of flying, it being supported by ample wings and tail, is in some degree allied to them, though it is by no means a bird of rapid flight, but one which procures its food by patient industry, and sometimes by surprising its prey. Its style of chase is very inferior to that of those species which I consider as not only the swiftest, but the most expert, active, and persevering marauders. The Marsh Hawk is connected with these by its long and slender tail, and also by its propensity to wander over vast tracts of country. It may be said to swoop or to glide in procuring its prey, which consists both of birds and small quadrupeds, as well as insects, some of the latter of which it even seizes on wing.

Taking somewhat into consideration the usual low flight of the latter species, I feel induced to place next it the very swiftest of our Hawks, as I am convinced you would consider them, had you witnessed, like me, their manners for many successive years. These are the Goshawk, *F. palumbarius*, Cooper's Hawk, *F. Cooperi*, the Pigeon Hawk, *F. columbarius*, and the Sharp-shinned Hawk, *F. fuscus*. Though their wings are comparatively short, somewhat rounded, and rather concave, they have longer bodies and larger tails than any other of our hawks. The tail is used as a rudder, and appears most effectually to aid them in their progress on wing. None of these birds ever pounce on their prey, but secure it by actual pursuit on wing. Industrious in the highest degree, they all hunt for game, instead of remaining perched on a rocky eminence, or on the top branch of a tall tree, waiting the passing or appearance of some object. They traverse the country in every direction, and dash headlong in the wildest manner, until their game being up they follow it with the swiftness of an arrow, overtake it, strike it to the ground with wonderful force, and at once fall to, and devour it. Although the flight of our Passenger Pigeon is rapid and protracted almost beyond belief, aided as this bird is by rather long and sharp wings, as well as an elongated tail, and sustained by well regulated beats, that of the Goshawk or of the other species of this group so very far surpasses it, that they can overtake it with as much ease as that with which the pike seizes a carp. I have often thought that the comparatively long tarsi of these

Hawks, as well as their elongated and padded toes, are of considerable assistance in securing their prey on wing, as they throw these members to the right and left, upward or downward, when about to come into contact with the object of their pursuit. In boldness and ferocity they probably surpass all other birds of prey.

The next race is composed of the species called "True Falcons," of which we have the Jer Falcon, *Falco Islandicus*, the Peregrine Falcon, *F. Peregrinus*, the Pigeon Hawk, *F. Columbarius*, and the Sparrow Hawk, *F. Sparverius*. These birds are probably the most highly organized of the series. Their wings are pointed and somewhat broad; their tail is not only considerably elongated, but has a firmness and elasticity not seen in that of the other species. While in Eagles and other sluggish birds of prey, the motions of the wings are slow, in the species now under consideration they are strong and quickly repeated. They moreover possess the power of swooping in a higher degree than even the Eagles, for although much smaller birds, they are if any thing still more compactly formed, whilst they are at the same time endowed with at least a fair power of flight, so that they give chase to the swiftest birds, and not unfrequently overtake and destroy them. In their migrations they differ from the slow-flying species, which seldom remove far from the place of their birth, for they appear to delight in following the myriads of the feathered tribes from which they have derived their subsistence during summer in the northern regions, to those southern countries in which they are sure of obtaining an ample supply, each species pursuing those on which it more usually preys. Thus, some, as the Peregrine Falcon, will remove as far as the confines of Mexico or the extreme portions of California. The Jer Falcon, which mostly feeds on hares and grouse, belonging to northern countries, and which of course migrate southward to a very short extent, rarely advances far; while the Pigeon Hawk, as daring as the Peregrine, follows the Red-wings, Rice Birds, and other small migratory species, with a pertinacity not in the least surpassed by that of the Peregrine Falcon itself.

The group of our American birds of prey of which the species differ most strikingly from the rest, contains the Bird of Washington, *Falco Washingtonii*, the White-headed Eagle, *F. leucocephalus*, and the Fishing Hawk or Osprey, *F. Ossifragus*. Looking upon these three species as more or less connected in respect to their general habits, while each of them differs from the rest, I hope you will excuse me, reader, if I now take a glance at them separately. He who generalizes at random might perhaps be induced to compare the Fishing Hawk to nothing else than a very large and clumsy Tern, for like most birds of that group, it is known to range in a desultory manner over the waters of our bays and estuaries, and along the shores of

the Atlantic and Pacific Oceans. It poises itself awhile on spying its prey just beneath the surface of the water, glides or plunges headlong upon it, and thus secures it at once, or experiences the same disappointment that Terns themselves do on many occasions. It is true, however, that the Fishing Hawk does not, Tern-like, secure its finny prey with its bill; but what of that, if it plunges into the deep and seizes its quarry there? The Bird of Washington which is also a fishing Eagle, glides over its prey, and seizes it mostly in the manner exhibited by Gulls. The White-headed Eagle, which, as I have told you before, also dives after fish on some occasions, and pursues the smaller kinds in shallow water by wading after them, will also attack birds and quadrupeds of various species, and thus may be looked upon as one of the most singularly gifted of our diurnal birds of prey.

The species now before you belongs to the group of what may be called indolent or heavy-flying Hawks. The specimen from which I made my drawing, was procured by a gentleman residing in Louisiana, who shot it between Bayou Sara and Natchez. A label attached to one of its legs authorizes me to say that it was a female; but I have received no information respecting its habits; nor can I at present give you the name of the donor, however anxious I am to compliment him upon the valuable addition he has made to our Fauna, by thus enabling me to describe and portray it. I have much pleasure in naming it after my friend EDWARD HARRIS, Esq., a gentleman who, independently of the aid which he has on many occasions afforded me, in prosecuting my examination of our birds, merits this compliment as an enthusiastic Ornithologist.

BUTEO HARRISII, Aud., Birds of America, pl. 392; Ornithol. Biog., vol. v. p. 30.

Adult Female.

Bill short, robust, as broad as high at the base, compressed toward the end; upper mandible with its dorsal outline sloping a little at the base, then decurved, the sides nearly flat, the edge with a slight festoon, the tip prolonged, trigonal, descending, acute; lower mandible with the angle rather long and wide, the dorsal line convex, the edge decurved toward the end, the tip obtuse. Nostrils rather large, ovate, oblong, oblique.

Head large, ovate, flattened above, with the superciliary ridges projecting. Neck of moderate length; body full. Feet of ordinary length, very robust; tarsus strong, roundish, feathered anteriorly for somewhat more than a third, and having thirteen scutella, covered behind with sixteen scutella, reticulated on the sides and at the lower part; toes strong, of moderate length, the first and second thickest, and nearly equal; the first with four, the second with five, the third with eight, the fourth with six entire scutella, the parts

toward the base with transverse series of rectangular scales; claws long, stout, arched, moderately compressed, flat beneath, tapering to a very acute point; the inner edge of that of the middle toe sharp.

Plumage rather compact, the feathers broadly ovate and rounded; the space between the bill and the eye covered with small bristle-pointed feathers; the feathers on the outer side of the leg not much elongated. Wings long, broad, much rounded; the first quill four inches shorter than the fourth, which is longest, the fifth longer than the third, and the seventh longer than the second; the first four having the inner web cut out; secondaries broad and rounded. Tail long, broad, slightly rounded, the lateral feathers three-quarters of an inch shorter than the longest.

Bill light blue at the base, black toward the end; cere and feet yellow; claws black. The general colour of the plumage is deep chocolate-brown; the quills darker; the upper and lower wing-coverts and the feathers of the legs brownish-red, the wing-coverts with a central dusky streak, which is enlarged on those toward the edge beyond the carpal joint, and on the secondary coverts, so as to leave only the margins red. The feathers of the rump are faintly margined with red, and the upper tail-coverts are barred and tipped with white. The tail is brownish-black, with two broad bands of white, the one at the base, the other terminal.

Length to end of tail 24 inches; bill along the ridge $1\frac{10}{12}$; cere $\frac{7}{12}$; wing from flexure $15\frac{1}{4}$; tail $10\frac{1}{4}$; tarsus $3\frac{7}{12}$; hind toe $1\frac{2}{12}$, its claw $1\frac{5}{12}$; second toe $1\frac{4}{12}$, its claw $1\frac{3}{12}$; third toe 2, its claw $\frac{1}{12}$; fourth toe $1\frac{5}{12}$, its claw $\frac{9}{12}$.

COMMON BUZZARD.

+*BUTEO VULGARIS*, *Willoughby*.

PLATE VI.—FEMALE.

The specimen from which the figure before you was taken, was shot by Mr. TOWNSEND on a rock near the Columbia River, on which it had its nest. Unfortunately, however, he has not supplied me with any account of this species, and the only notice respecting its habits that I have seen, is that in the *Fauna Boreali-Americana*, by Dr. RICHARDSON:—"The Common Buzzard arriving in the Fur Countries in the middle of April very soon afterwards begins to build its nest; and, having reared its young, departs about the end of September. It haunts the low alluvial points of land which stretch out under the high banks of a river; and may be observed sitting for a long

Harris's Buzzard

Audubon, John James. 1840. "Harris's Buzzard, *Buteo harrisii*, Aud. [Pl. 5]." *The birds of America : from drawings made in the United States and their territories* 1, 25–30. <https://doi.org/10.5962/p.319118>.

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