



Audubon's  
Birds

Author: John James Audubon

Page 4:

*Bald Eagle*, *Haliaeetus leucocephalus*

Plate 11, Falconine Birds

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ISBN : 978-1-78042-180-3

## Foreword

“I am well-received everywhere, my works praised and admired, and my poor heart is at last relieved from the great anxiety that has for so many years agitated it, for I now know that I have not worked in vain.”

— John James Audubon, 1826



# Biography

- 1785: John James Audubon is born on the island of Santo Domingo (now Haiti) on 26 April, son of a French sea captain and plantation owner, and his mistress.
- 1789: Arrives in France where he spends his childhood raised by his stepmother, Mrs Audubon. There, he takes a lively interest in birds, nature and drawing.
- 1803: Settles in America to escape conscription into the Emperor Napoleon's army.
- 1805: Returns to France.
- 1806: Goes back to America to escape the emperor's army again.
- 1808: Marries Lucy Bakewell.
- 1809: Birth of his son Victor Gifford, first of his two boys (the second named John Woodhouse).
- 1810: Receives a visit from Alexander Wilson, one of the first ornithologist painters of America. He realises his drawings are better than Wilson's so he decides to produce a work on all American Birds. Settles with his family in Henderson, Kentucky.
- 1820: Moves to Cincinnati and follows the Mississippi towards the south to discover the birds of Louisiana (which meant at that time a quarter of the American continent). There he meets the last free Indians.

John J. Audubon

- 1826: He sails to Europe to raise money for the printing of his *Birds of America* and presents his work to the English botanists.
- 1826: First plate printed.
- 1828: Presentation of his work to the French botanists, meets Pierre Redouté.
- 1829: Goes back to America to fulfil his study of birds.
- 1831-1839: Publication of his *Ornithological Biographies* in five volumes.
- 1832: Expedition in the Carolinas and in Florida to observe tropical birds.
- 1833: Expedition to Labrador, Canada, on the settlements of arctic nesting.
- 1837: Expedition in Texas.
- 1834: Starts his exploration of West America.
- 1838: His 435<sup>th</sup> and last plate is printed on 20 June.
- 1843: Last expedition of Audubon to Yellowstone River.
- 1845-1848: Publication of the *Viviparous Quadrupeds of North America*.
- 1851: John James Audubon dies on 27 January.
- 1886: Founding of the National Audubon Society.

## Preface

“Audubon could have been anything: a great philosopher, a great orator, a great poet, a great statesman, a Jean-Jacques Rousseau, a Montesquieu, a Chateaubriand. However, he was unable to be other than a naturalist, painter, and American ornithologist, a Buffon of the Northern States, but a Buffon of genius, spending his life in virgin forests and writing with the enthusiasm of solitude a few pages of the great animal epic of creation.” (Lamartine, *Cours familier de littérature*, Paris, 1865).



### Portrait of John James Audubon

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John Syme, 1826

The White House Collection, Washington D.C.







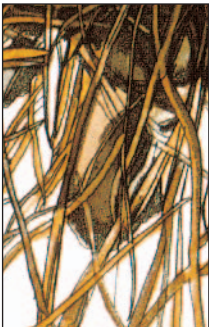
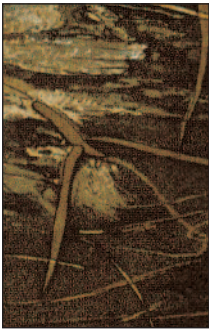
When John James Audubon decided after his meeting with Alexander Wilson in 1810 to paint and describe all the birds of North America, surely he never imagined that it would entail a lifetime of travels, scientific as well as artistic discoveries, and a pursuit of quality to the final proof of the published prints. That is the personality of this French American ornithologist, unique in his field, who succeeded in describing and illustrating all birds of the North American continent, there where his predecessors were confined to the former French and British colonies to the explored territories.

### Greater Flamingo

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*Phoenicopterus ruber*  
Plate 431  
Ducks



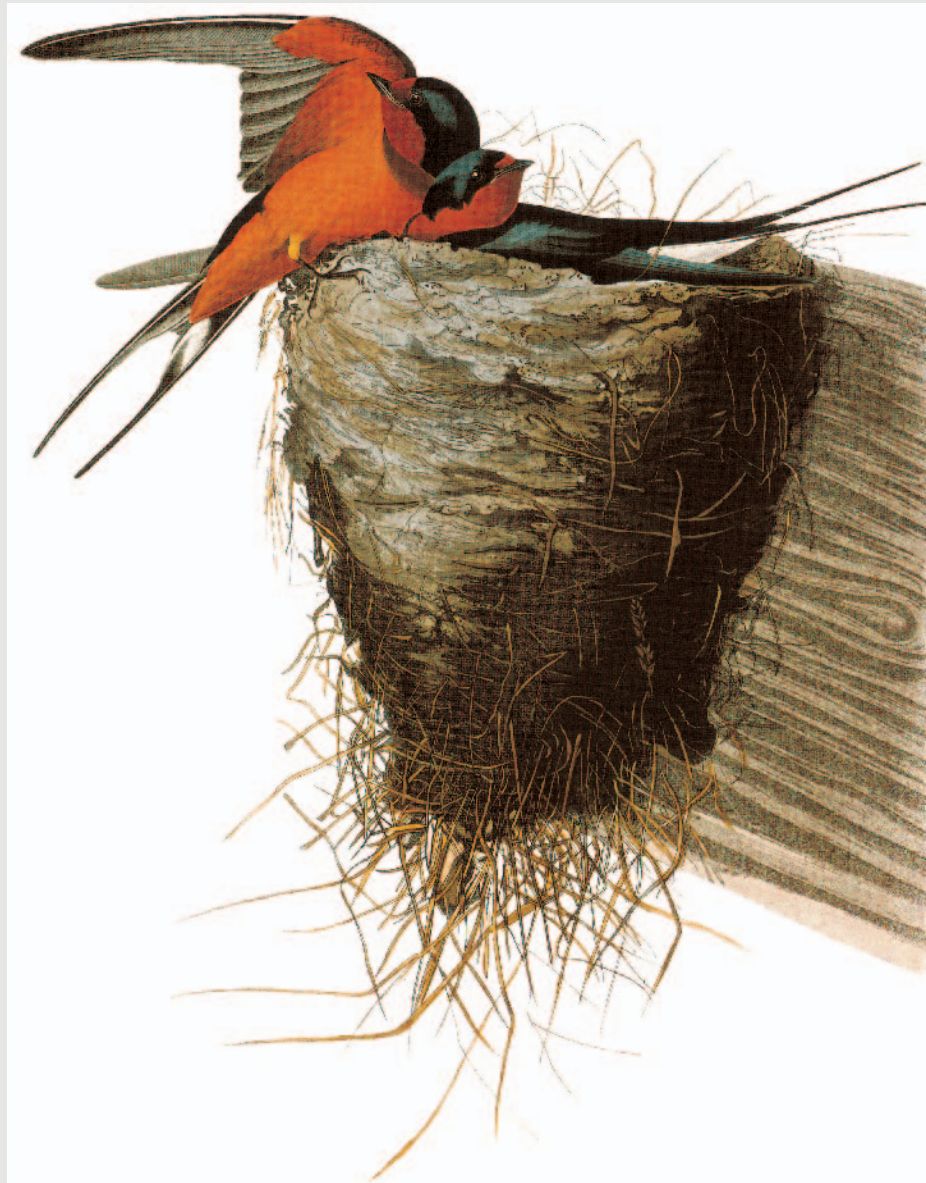


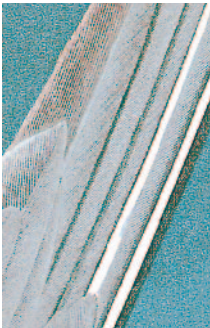
Yet, his legacy does not stop there. The originality of his illustrations marks a turning point in the history of representing nature. Audubon's depictions are life size, thus requiring him to multiply the number of birds appearing on the same plate, or bend the necks of others as with the Greater Flamingo. In addition, he portrays them in a natural setting, far from scientific exhibits of stuffed specimens displayed on perches. Consequently, his birds live, hunt, hatch, peck, fly, and soar.

### Barn Swallow

---

*Hirundo rustica*  
Plate 173  
Swallows





This humanity in representing our environment, in the tradition of Enlightenment thinkers, immediately received its deserved respect in Europe from 1828 onward.

Audubon's impressive oeuvre is composed of two parts: 435 plates, drawn between 1808 and 1838, and 435 notes, *Ornithological Biographies*, later written to accompany the previously published plates. Here again, Audubon exhibited a passion for perfection which pushed him to supervise the colouring and printing of each of the 87,000 requisite plates for the 200 copies of this work.

### Artic Tern

---

*Sterna paradisaea*  
Plate 250  
Gulls





Finally, the text, including a description of the family, followed by the genus, and finally the species of each bird, is as much a source of scientific information as artistic. Once again, Audubon let the Romantic spirit of his time shine through his work whose harmony and quality are still, if not more than ever, recognised today.

In the following edition, you will find 120 of Audubon's 435 plates in addition to descriptions of the forty five bird families to which he dedicated a lifetime identifying. Therefore, we invite you to discover, thanks to this unprecedented approach, the vanishing universe of this nature lover.

### Rose-breasted Grosbeak

---

*Pheucticus ludovicianus*  
Plate 127  
Finches







## FAMILY I

### Vulturinae. Vulturine Birds or Vultures

Bill of moderate length, stout, cerate; upper mandible with the tip elongated and decurved; lower mandible rounded and thin-edged at the end. Head rather small, or of moderate size, ovato-oblong, and with part of the neck destitute of feathers. Eyes of moderate size, without projecting ridges.

External aperture of ears rather small and simple. Skin over the fore part of the neck bare or merely downy.



### California Condor

---

*Gymnogyps californianus*  
Plate 426  
Vulturine Bird





Tarsus rather stout, bare, and shorter than the middle toe, hind toe much smaller than the second; anterior toes connected at the base by a web; claws large, moderately curved, rather acute. Plumage full and rather compact. Wings very long, and subacuminate. Oesophagus excessively wide, and dilated into a crop; stomach rather large, somewhat muscular, with a soft rugous epithelium; intestine of moderate length and width, coeca extremely small. The young when fledged have the head and upper part of the neck generally covered with down. Eggs: commonly two.

## Turkey Vulture

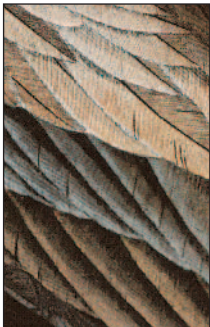
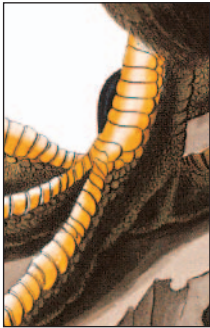
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*Cathartes aura*

Plate 151

Vulturine Bird





## FAMILY II

### Falconinæ. Falcons

Bill short, stout, cerate; upper mandible with the tip elongated and decurved; lower mandible rounded and thin edged at the end. Head rather large, broadly ovate, feathered. Eyes large, with prominent superciliary ridges. External aperture of ears of moderate size, and simple. Tarsus longer than the middle toe; claws very large, much curved, extremely acute. Plumage full and generally compact.

### Bald Eagle

Haliaeetus leucocephalus  
Plate 11  
Falconine Birds





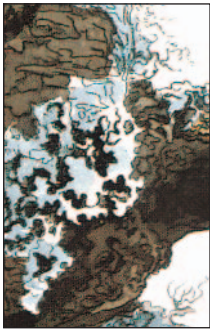
Wings very long and broad. Oesophagus excessively wide and dilated into a crop; stomach large, membranous, its muscular fasciculi placed in a single series; intestine short and rather wide, or very long and slender. The young, when fledged, generally having their lower parts longitudinally streaked. Eggs: from two to six, ovate, or round. Nest on trees, rocks, or the ground.

### Bald Eagle

Haliaeetus leucocephalus  
Plate 31  
Falconine Birds







**FAMILY III**  
**Striginae. Owls**

Bill very short, strong, cerate; upper mandible with the tip elongated and decurved; lower mandible with the end rounded and thin edged. Head extremely large, owing to the wide separation of the tables of the cranium, rounded, more or less vertically flattened behind, feathered. Eyes excessively large, with prominent superciliary ridges, and encircled by series of decomposed feathers.

Great horned Owl

---

*Bubo virginianus*  
Plate 61  
Owls





External aperture of ear always very large, frequently excessive, simple or operculate. Tarsus short, very short, or of moderate length, always feathered, as are the toes, of which the outer is versatile, the first shorter than the second, the anterior free; claws very long slender, curved, extremely acute. Plumage very full and soft. Wings long, broad, rounded, the second, third, and fourth quills longest, the filaments of the outer more or less enlarged and recurved at the end.

## Great Grey Owl

---

*Strix nebulosa*  
Plate 351  
Owls





Tail broad, rather short or of moderate length, of twelve feathers. Oesophagus very wide, without crop or dilatation; stomach very large, round, membranous, its muscular fasciculi placed in a single series; intestine short and wide. Young at first covered with light coloured down, when fledged, with the face darker than that of adults. Eggs: white, somewhat globular or broadly ovate, from four to six. Nests rudely constructed, in hollow trees, on branches, in buildings, or on the ground.

### Common-Barn-Owl

---

*Tyto alba*  
Plate 171  
Owls





## FAMILY IV

### Caprimulginae. Goatsuckers

Mouth opening to beneath the centre of the eyes; bill much depressed, generally feeble, the horny part being small; upper mandible with the tip somewhat decurved. Nostrils, elliptical, prominent, marginate. Eyes extremely large. Aperture of ear elliptical, very large. Head of extreme breadth, depressed; body very slender. Feet very small; tarsus partially feathered, scaly; anterior toes webbed at the base; hind toe small, and versatile, all scutellate above; claw of third toe generally elongated, with the inner margin thin and pectinate.

Chuck-Willis-Widow

---

*Caprimulgus carolinensis*  
Plate 52  
Goatsuckers







Plumage very soft and blended. Wings very large, the second and third quills longest. Tail long, of ten feathers. Oesophagus rather wide, without crop; stomach very large, rounded, its muscular coat very thin, and composed of a single series of strong fasciculi; epithelium very hard; intestine short and wide. Trachea of nearly uniform width, without inferior laryngeal muscles. Nest on the ground, or in hollow trees. Eggs: generally two. Young covered with down. Very nearly allied in some respects to owls.

### Whip-poor-will

Caprimulgus vociferus  
Plate 82  
Goatsuckers



FAMILY V  
*Cypselinæ*. Swifts



Mouth opening to beneath the hind part of the eyes; bill extremely short, very broad at the base, compressed at the end; upper mandible decurved at the point, the edge inflected, with an indistinct sinus. Nostrils basal, approximate, oblong. Head large and depressed; neck short; body rather slender. Feet extremely short; tarsus rounded, destitute of scutella; toes extremely short, the three anterior nearly equal; hind toe very small, and versatile; claws strong, compressed, arched, very acute.

Chimney Swift

---

*Chaetura pelagica*  
Plate 158  
Swifts





Plumage compact; no bristles at the base of the upper mandible; wings extremely elongated, falciform, the first quill longest; tail of ten feathers. Oesophagus of moderate width, without crop; stomach oblong, moderately muscular, with a dense rugous epithelium; intestine short, and rather wide. No inferior laryngeal muscles. Nest in crevices or holes, or attached to high places. Eggs: elongated, white.

### Seaside Sparrow

---

*Ammodramus maritimus*  
Plate 93  
Swallows





## FAMILY VI

### Hirundinæ. Swallows

Bill very short, much depressed and very broad at the base, compressed toward the tip; upper mandible with the dorsal line convex, the edges overlapping, with a small notch close to the slightly decurved tip. Head broad, depressed; neck very short, body moderate. Feet very short, tarsus very short, anteriorly scutellate; toes of moderate size; first large, all scutellate in their whole length; claws rather strong, compressed, well curved, acute. Plumage soft, blended, glossy.

### Marsh Wren

*Cistothorus palustris*  
Plate 100  
Swallows







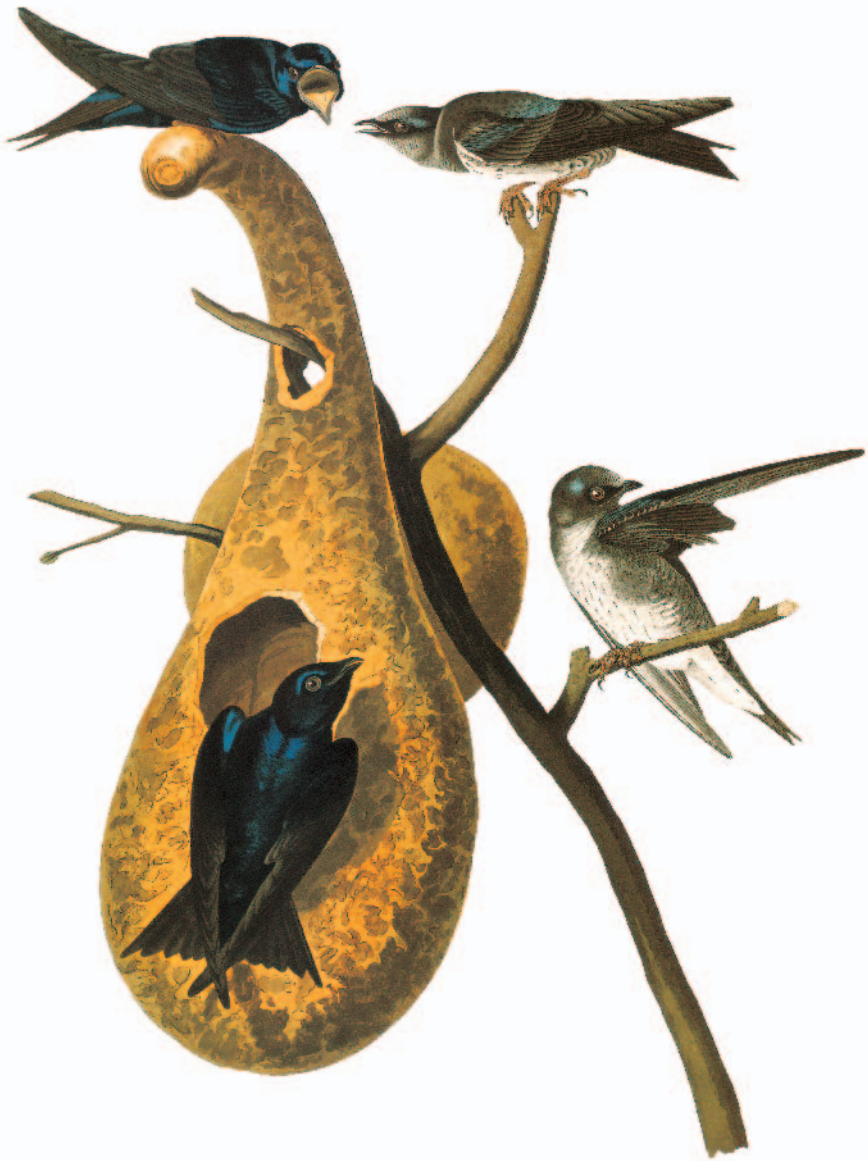
No bristles at the base of the bill. Wings extremely long, narrow, pointed, somewhat falciform; secondaries very short. Tail generally emarginate, of twelve feathers. Mouth extremely wide; oesophagus rather wide, without crop; stomach elliptical or rounded, muscular, with a dense rugous epithelium. Four pairs of inferior laryngeal muscles. Nest in holes in banks, buildings, or trees, or attached to the surface of these objects. Eggs: from four to six, white, plain, or spotted.



## Purple Martin

---

Progne subis  
Plate 22  
Swallows





## FAMILY VII

### Muscicapinæ. Flycatchers

Bill depressed, triangular, compressed at the end, upper mandible notched, lower with the point slightly ascending. Head rather large, depressed; neck short; body rather slender. Feet generally short; tarsus short, slender, with very broad scutella. Toes: four, free; the hind toe not proportionally large; claws arched, compressed, and acute. Plumage soft and blended; wings long, with the first quill generally long, the outer three longest. Tail various.

#### Fork-tailed Flycatcher

---

*Tyrannus savana*  
Plate 168  
Flycatchers





Tongue flattened, sagittate, bristly at the tip, oesophagus wide, without crop; stomach elliptical, moderately muscular, with the lateral muscles distinct, the epithelium thin, dense, longitudinally rugous; intestine short. Trachea simple, inferior laryngeal muscles, forming on each side a large pad, but not divisible into several portions as in the singing birds. Nests regularly formed, cup-shaped. Eggs from four to six.

### Say's Phoebe

---

Sayornis saya  
Plate 359  
Flycatchers





## FAMILY VIII

### Sylvicolinae. Wood Warblers

Bill short or of moderate length, rather slender and conical, considerably broader than high at the base, gradually compressed toward the end. Upper mandible with its dorsal outline straight until near the end, the point very narrow, the notches very slight. Lower mandible with the angle rather short and narrow, the dorsal line straight, the edges somewhat involute, the tip acute.

#### Canada Warbler

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*Wilsonia canadensis*

Plate 5

Wood Warblers







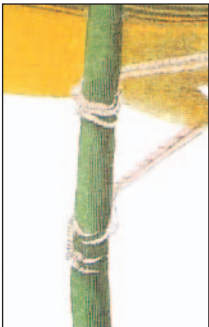
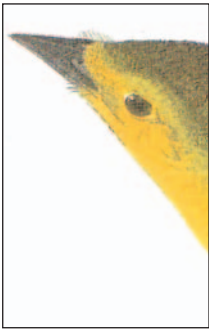
Head moderate, ovate; neck short; body rather slender. Feet of moderate length; tarsus longer than the middle toe, slender, much compressed, with eight anterior scutella, of which the upper are blended; toes rather small, or of moderate size, hind toe proportionally stout, outer adherent for a short way at the base; claws moderate, much compressed, arched, acute. Plumage generally soft and blended. Wings of moderate length.

### Northern Parula

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*Parula americana*  
Plate 15  
Wood Warblers





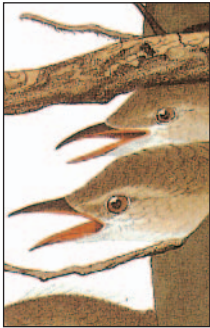
Tail of moderate length, of twelve feathers. Tongue of moderate length, sagittate, tapering. Oesophagus of moderate width, without dilatation, proventriculus bulbiform; stomach of moderate size, rounded or elliptical, moderately muscular, with the muscles distinct; epithelium dense, longitudinally rugous; intestine short, rather wide. Trachea simple; with four pairs of inferior laryngeal muscles.

## Hooded Warbler

---

*Wilsonia citrina*  
Plate 9  
Wood Warblers





**FAMILY IX**  
**Certhianæ. Creepers**

Bill of moderate length or rather long, slender, slightly arched, much compressed, acute; upper mandible with its dorsal outline convex or arched, the ridge narrow, the notches slight or obsolete, lower mandible with the angle rather long and narrow, the dorsal line straight or slightly decurved, the edges inclinate, the tip acute. Head moderate, ovate; neck short.

House Wren

Troglodytes aedon  
Plate 83  
Creepers





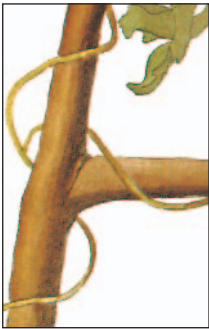
Body slender. Feet of moderate length, or rather short; tarsus about the same length as the middle toe, compressed, with eight anterior scutella, toes of moderate length and much compressed, hind toe proportionally long, outer adherent at the base; claws rather long, extremely compressed, arched, and acute. Wings short or of moderate length. Tail of twelve feathers, generally much rounded.

### Carolina Wren

*Thryothorus ludovicianus*  
Plate 78  
Creepers







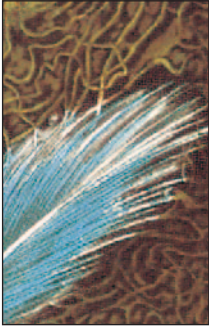
Tongue slender, emarginate and papillate at the base, very narrow, tapering to a lacerated point. Oesophagus of moderate width, without crop; proventriculus bulbiform; stomach of moderate size, oblong, or elliptical, moderately muscular, with the muscles distinct; epithelium dense, longitudinally rugous; intestine short, rather wide. Trachea simple, with four pairs of inferior laryngeal muscles.

## Boreal Chickadee

---

*Parus hudsonicus*  
Plate 194  
Tits





## FAMILY X

### Parinae. Tits

Bill very short or of moderate length, straight, strong, compressed, rather sharp; both mandible with the dorsal line sloping and slightly convex, the sides convex, the edges sharp; notches obsolete. Nostrils basal, round, concealed by the feathers. Head rather large, round; neck short; body short, and rather full.

Feet of moderate length, rather stout tarsus rather short, compressed, with eight, distinct scutella; toes large, the three anterior united as far as the second joint, the hind toe much stronger and flattened beneath; claws rather long, stout, arched, much compressed, acute.

Bushtit, Black-Capped Chickadee  
and Chestnut-Backed Chickadee

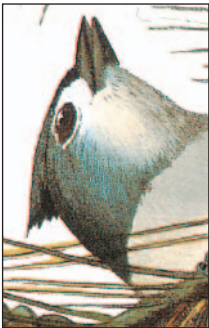
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*Psaltriparus minimus*, *Parus atricapillus*, *Parus rufescens*

Plate 353

Tits





Plumage very soft, blended, and full. Feathers at the base of the bill directed forwards. Wings of moderate length, much rounded, with the first quill very small, the fourth and fifth longest. Tail rather long, slender, of twelve narrow rounded feathers. Tongue emarginate and papillate at the base, abrupt at the tip, with four bristles. Oesophagus narrow, without dilatation; proventriculus oblong; stomach a rather strong oblong gizzard, with the muscles distinct, the epithelium dense, thin, longitudinally rugous; intestine short, of moderate width. Trachea simple, with four pairs of inferior laryngeal muscles.

### Tufted Titmouse

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*Parus bicolor*  
Plate 39  
Tits



FAMILY XI  
Sylvianæ. Warblers



Bill of moderate length, slender, straight, a little broader than high at the base, compressed toward the end; upper mandible with its dorsal line straight and declinate, convex at the end, the tip small, acute, the notches small; lower mandible with the angle of moderate length and narrow, the dorsal line straight, the sides convex, the tip narrow. Nostrils basal, oval or oblong.

Head rather large, ovate; neck short; body rather slender. Feet of ordinary length, slender; tarsus compressed, with seven anterior scutella; toes moderate, compressed;

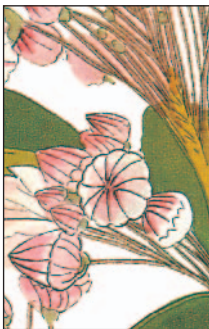
Eastern Bluebird

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*Sialia sialis*  
Plate 113  
Warblers







first stouter, second and fourth nearly equal, third much longer, and adherent at the base; claws moderate, arched, slender, compressed, acute. Plumage soft and blended. Bristles short or weak. Wings of moderate length or long, the first quill very small, the second, third, and fourth longest. Tail long or of moderate length, of twelve feathers. Tongue, sagittate, slender, tapering to a slit and lacerated point. Oesophagus rather narrow, without crop; proventriculus oblong;

### Curlier's Kinglet

---

*Regulus civieri*  
Plate 55  
Warblers





stomach a gizzard of moderate strength, with the muscles distinct, the epithelium dense and rugous; intestine of moderate length.

Trachea simple, with four pairs of inferior laryngeal muscles.

Of this family, which in Europe is so numerous, there are in North America only two genera, *Regulus* and *Sialia*, the former composed of very small birds, allied in manner to the Tits, the latter approaching the Thrushes in form. The connecting links being wanting, these genera might seem, at first sight, very dissimilar.

### Ruby-Crowned Kinglet

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*Regulus calendula*  
Plate 195  
Warblers





## FAMILY XII

### Turdinæ. Thrushes

Bill short, or of moderate length, rather strong, straight, compressed toward the end; upper mandible with its dorsal outline a little convex and declinate, the tip small, rather acute, the notches small; lower mandible with the angle rather short, of moderate width, the dorsal line straight, the sides convex, the tip acute. Head oblong, compressed, of moderate size; neck rather short: body moderate.

### American Goldfinch

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*Carduelis tristis*  
Plate 33  
Thrushes





Eyes of moderate size. External aperture of ear is large and round. Feet of moderate strength; tarsus compressed, with seven anterior scutella; toes rather strong, compressed; first, second, and fourth, nearly equal, third much longer, and adherent to the fourth at the base; claws rather long, arched, compressed, laterally grooved, and acute. Plumage rather blended. Bristles small.



## Northern Mockingbird

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*Mimus polyglottos*  
Plate 21  
Thrushes







Wings of moderate length, broad, rounded; the first quill very small, third and fourth longest. Tail of twelve feathers, varying in length. Tongue sagittate and papillate at the base, slender, tapering, its tip slit. Oesophagus rather narrow, without crop; proventriculus oblong; stomach a gizzard of moderate strength, its lateral and lower muscles distinct; the epithelium dense and rugous; intestine of moderate length. Trachea simple, with four pairs of inferior laryngeal muscles.

## American Dipper

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Cinclus mexicanus  
Plate 370  
Thrushes





**FAMILY XIII**  
**Motacillinae. Wagtails**

Bill of moderate length, straight, slender, a little broader than high at the base, compressed toward the end; upper mandible with the dorsal line sloping, a little convex toward the end, the nostrils slight, the tip acute; lower mandible with the angle rather large and narrow, the dorsal line ascending and scarcely convex, the edges somewhat involute, the tip acute.



Witer Pipit

*Anthus spinoletta*  
Plate 80  
Wagtails





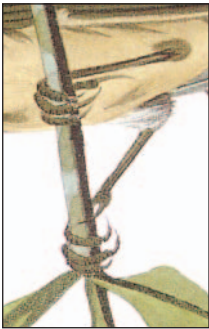
General form slender; head ovato-oblong; neck short. Feet of ordinary length, slender; toes very slender, the lateral equal, the outer adherent at the base, the hind toe rather large; claws rather long, arched, compressed; acute, that of the hind toe generally very long. Plumage soft and blended. Bristles small. Wings long and pointed, one of the minor secondaries often much elongated and tapering.

## Ovenbird

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*Seiurus aurocapillus*  
Plate 143  
Wagtails





Tongue sagittate, slender, with the tip slit; oesophagus uniform; stomach a very muscular gizzard, rounded, with large tendons, and thin rugous epithelium; intestine of moderate length. Trachea simple, with four pairs of inferior laryngeal muscles. This family is connected with the Turdinae by *Seiurus*, and with the Alandinae by *Anthus*, which are the only two American genera.

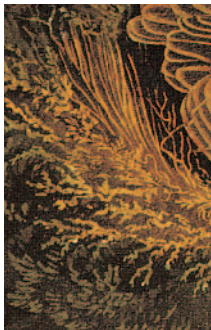
## Louisiana Waterthrush

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*Seiurus motacilla*  
Plate 19  
Wagtails







## FAMILY XIV

### Alaudinæ. Larks

Bill rather short, or of moderate length, somewhat conical, compressed toward the end. Upper mandible dorsal line sloping and slightly convex, the edges sharp and overlapping, the notches generally obsolete; the tip narrow and a little deflected; lower mandible of moderate length and narrow, the dorsal line ascending and nearly straight, the edges slightly inflected, the tip acute; gape-line straight. Nostrils elliptical or oblong, basal.

### Horned Lark

---

*Eremophila alpestris*  
Plate 200  
Larks





Head oblong, of moderate size neck rather short; body ovate. Feet of moderate length, or rather long; tarsus compressed, with eight anterior scutella; toes slender, compressed; the hind toe elongated, second and fourth about equal, third much longer. Claws rather long, arched, slender, much compressed, laterally grooved, acute, that of the hind toe very long, straight, tapering. Plumage generally soft and blended. Wings rather long, broad, the inner secondaries tapering, and one so elongated as nearly to equal the longest primary, when the wing is closed.

### Western Tanager and Scarlet Tanager

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*Piranga ludoviciana*, *Piranga olivacea*  
Plate 354  
Finches





Tail of twelve feathers, generally emarginate. Roof of the upper mandible concave, generally with three prominent lines; tongue slender, thin, flat, tapering to a slit and bristly tip; oesophagus of uniform width; stomach a very strong muscular gizzard of a rounded form and compressed, its lateral muscles very large, its epithelium dense and rugous; intestines short, of moderate width. Nest on the ground. Eggs – five or six, oval, spotted.

### Black-Headed Grosbeak and Evening Grosbeak

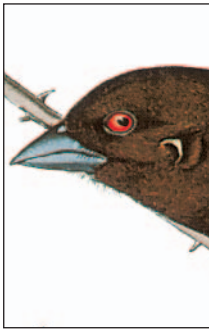
*Pheucticus melanocephalus*, *Coccothraustes vespertinus*,  
*Hesperiphona vespertina*  
Plate 373  
Finches





**FAMILY XV**  
**Fringillinae. Finches**

Bill short, stout, conical, acute; upper mandible generally with its dorsal line more or less convex, the sides rounded, the edges inflected or direct, the tip acute; lower mandible with the dorsal line ascending and slightly convex, the edges involute. Gape-line ascending for more than a quarter of its length, then direct. Nostrils basal, round, partly concealed by feathers.



Rufous-Sided Towhee or Eastern Towhee

---

*Pipilo erythrophthalmus*  
Plate 29  
Finches







Head of moderate size, or rather large, ovate or rounded; neck short; body compact; tarsus generally shorter than the middle toe with its claw, compressed, with seven or eight anterior scutella; hind toe stout; outer toe adherent at the base, lateral about equal. Claws large or moderate, compressed, laterally grooved, acute. Plumage soft and blended, but firm. Wings various, acute, or rounded. Tail of twelve feathers. Roof of upper mandible concave, with three prominent lines, of which the middle is sometimes elevated into an oblong hard prominence.

### Savannah Sparrow

---

*Passerculus sandwichensis*  
Plate 109  
Finches





Tongue much compressed, pointed; oesophagus rather wide, with a dilatation or crop on the right side; stomach round or oblong, muscular, with the epithelium, thin, dense, and longitudinally rugous; intestine short, rather wide. Trachea simple, with four pairs of inferior laryngeal muscles. The Fringilline pass into the Icterine on the one hand, and the Alaudinae on the other. The Buntings scarcely differ from the Finches in any other character than the knob on the palate, which is common to them with the Icterinae.

### Painted Bunting

Passerina ciris  
Plate 53  
Finches





## FAMILY XVI

### Agelainæ. Marsh Blackbirds

Bill of moderate length, sometimes short, seldom longer than the head, stout, straight, conical, compressed, tapering, pointed. The upper mandible with the dorsal line nearly straight, the nasal sinus short and very wide, the ridge thus appearing to encroach on the forehead, the sides rounded, the edges without notch; lower mandible with the angle short and rounded, the dorsal line straight, the edges involute.

Common grackle

---

*Quiscalus quiscula*  
Plate 7  
Marsh Blackbirds





Nostrils basal, round or oblong. Head rather large, ovate; neck short; body moderately full. Legs of moderate length, stout, rather slender; tarsus compressed, with eight anterior scutella; hind toe large, lateral toes equal, the outer adherent at the base. Claws generally large, arched, compressed, acute. Plumage soft, blended, in the males usually glossy.

### Boat-Tailed Grackle

---

*Quiscalus major*  
Plate 187  
Marsh Blackbirds







Wings of moderate length, with the outer three or four quills longest, the first being very little shorter than the second, or sometimes even exceeding it: tail of twelve feathers, of moderate length, or elongated. The roof of the upper mandible concave, with three longitudinal ridges, of which the middle is larger, and at the base forms a hard prominence: tongue sagittate and papillate at the base, narrow, deep, pointed.

## Northern Oriole

---

Icterus galbula  
Plate 12  
Marsh Blackbirds





Oesophagus wider dilated about the middle proventriculus oblong; stomach rounded or elliptical, with the lateral muscles distinct and well developed; the epithelium dense and longitudinally rugous; intestine short. Trachea simple, with four pairs of inferior laryngeal muscles. Female much smaller. Nests variously on trees or bushes, or on the ground, generally elaborate. Eggs – about five, ovate, spotted and streaked.

## Orchard Oriole

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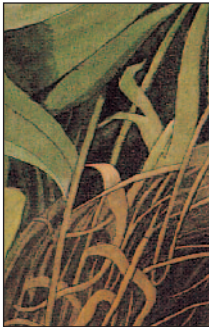
*Icterus spurius*  
Plate 42  
Marsh Blackbirds





**FAMILY XVII**  
**Sturninae. Starlings**

Bill nearly as long as the head, moderately stout, or rather slender, nearly straight, compressed toward the end. The upper mandible with its outline straight, slightly convex toward the tip, the ridge somewhat flattened, the sides sloping and convex, the edges sharp and overlapping, with a very slight or obsolete notch, close to the depressed tip.



Eastern Meadowlark

*Sturnella magna*  
Plate 136  
Starlings





The lower mandible with the angle long and rather acute, the crura rather broad and flat at the base, the dorsal line straight, the edges sharp, the tip slender; gape-line ascending gently at the base, then direct. Head ovate or oblong, flattened above; neck of moderate length; body rather full. Feet moderately stout; tarsus rather short, compressed, with seven anterior scutella; toes moderate, or rather long, the first stouter, the lateral toes equal, the outer adherent at the base. Claws rather long, moderately arched, compressed, acute. Plumage rather compact.

## Blue Jay

*Cyanocitta cristata*  
Plate 102  
Crows







Wings of moderate length, with the first quill very small, the third and fourth longest. Tail short or of moderate length, rounded, and generally emarginate. Roof of upper mandible with a median ridge; tongue slender, thin-edged, with the tip slit and lacerated; oesophagus without dilatation; stomach round, its muscular coat rather thin, the epithelium dense, and longitudinally rugous; intestine of moderate length and width. Trachea simple, with four pairs of inferior laryngeal muscles. Nests on the ground, or in cavities; eggs – about five.

## Blue Jay

*Cyanocitta cristata*  
Plate 102  
Crows





**FAMILY XVIII**  
**Corvinæ. Crows**

Bill about the length of the head, robust, nearly straight, and compressed: upper mandible with the dorsal line more or less arched, its tip slightly deflected, the edges sharp, with a slight notch or sinus. Nostrils basal, round, concealed by stiff slender reversed feathers. Head rather large, ovate; neck of moderate length, body compact.



American Crow

*Corvus brachyrhynchos*  
Plate 156  
Crows





Feet of ordinary length, rather stout: tarsus compressed, with about eight large scutella; toes four, first stronger, but about the same length as the second and fourth, which latter is adherent at the base. Claws rather large, arched, compressed, acute. Plumages various, wings long or of moderate length, much rounded, the first quill about half the length of the fourth or fifth, which are longest. Tail of twelve broad feathers.

## Gray Jay

*Perisoreus canadensis*  
Plate 107  
Crows





Upper mandible concave, with several longitudinal ridges; tongue oblong, flat above, horny, thin edged, with the tip slit and lacerated; oesophagus of moderate width, without dilatation; proventriculus bulbiform; stomach, a gizzard of moderate power, with a rugous dense epithelium; intestine of moderate length and width. Trachea with four pairs of inferior laryngeal muscles. Nests in high places, or in cavities, rudely constructed. Eggs - from four to six, ovate or oblong.

## Common Raven

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Corvus corax  
Plate 101  
Crows

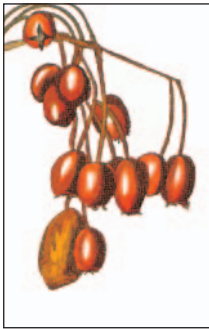






**FAMILY XIX**  
**Laninae. Shrikes**

Bill short, or of moderate length, stout, broader than high at the base, compressed toward the end; the gape-line slightly arched, the ridge narrow, the notch and dentiform process large, the tip narrow and decurved. Head large, round, ovate; neck short; body compact. Legs of moderate length; tarsus compressed, with seven anterior scutella; toes moderate, compressed; hind toe rather stout, lateral about equal, the outer adherent at the base. Claws arched, compressed, acute.



Northern Shrike

*Lanius excubitor*  
Plate 192  
Shrikes





Plumage soft and blended. Bristles rather strong. Wings and tail various. Roof of upper mandible narrow, with a median ridge; tongue slender, toward the end, with the margins lacerated, and the tip slit; oesophagus wide, uniform proventriculus elliptical; stomach broadly elliptical or rounded; its muscular coat thin, the epithelium dense and longitudinally rugous; intestine of moderate length. Trachea simple; four pairs of inferior laryngeal muscles.

## Loggerhead Shrike

---

*Lanius ludovicianus*  
Plate 57  
Shrikes





## FAMILY XX

### Vireoninæ. Greenlets

Bill of moderate length, straight, rather stout, compressed toward the end; gape-line slightly arched, notches distinct, tip very small, declinate. Head rather large, ovate; neck short; body rather slender. Feet of moderate length; tarsus compressed, slender, with seven anterior scutella; toes rather small, hind toe rather stout, lateral equal. Claws moderate, arched, compressed, acute. Plumage soft and blended.

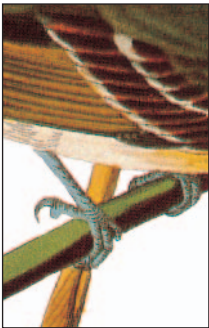


### Yellow Throated Vireo

---

*Vireo flavifrons*  
Plate 119  
Greenlets





Wings of moderate length, rather pointed. Tail of moderate length, even or emarginate. Roof of upper mandible concave, with a median ridge; tongue narrow, flat above, with the point slit; oesophagus of moderate length and without dilatation; stomach, round, muscular, with a dense rugous epithelium; intestine short, and rather wide. Trachea simple, with four pairs of inferior laryngeal muscles.

### Solitary Vireo

---

*Vireo solitarius*  
Plate 28  
Greenlets







**FAMILY XXI**  
**Piprinæ. Manakins**

Bill short, stout, straight, depressed, being much broader than high at the base, with the dorsal line arched, the ridge narrow, the sides sloping, the gape-line straight or slightly arched, the notches rather large, the tip very small and declinate. Head rather large, broadly ovate; neck short; body compact. Tarsus of moderate length, compressed, with seven anterior scutella; toes small, the hind one not much stouter, the lateral equal. Claws moderate, arched, compressed, acute.



Yellow-Breasted Chat

*Icteria virens*  
Plate 137  
Manakins





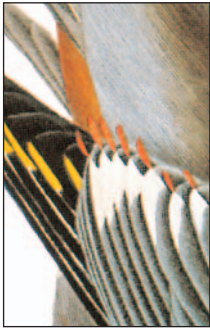
Plumage soft, and blended. Wings of moderate length, broad, and rounded. Tail short or of moderate length, generally rounded. Roof of upper mandible concave, with a prominent median line; tongue triangular, horny, thin-edged, rather obtuse, bristly at the end; oesophagus wide, without dilatation; stomach rather small, moderately muscular, with a dense rugous epithelium; intestine short, of moderate width.

## Northern Cardinal

---

*Cardinalis cardinalis*  
Plate 159  
Finches





## FAMILY XXII

### Ampelinæ. Chatterers

Bill short, depressed, rather weak, triangular when viewed from above, compressed at the end, its upper outline arched, the gape-line nearly straight, the notches very small, the tip very small and declinate. Nostrils elliptical, partially concealed by reversed bristly feathers. Head ovate; neck short; and body moderate or full. Feet short; tarsus short, rather stout, compressed; toes rather small. Claws rather long, arched, much compressed, acute.

### Bohemian Waxwing

---

*Bombycilla garrulus*  
Plate 363  
Chatterers





Plumage generally blended and glossy. Wings of moderate length, broad. Tail short or of moderate length. Roof of upper mandible rather concave, with three longitudinal ridges; tongue horny, deeply slit; oesophagus very wide, dilated about the middle; stomach small, elliptical, moderately muscular; intestine of moderate length and very wide. Trachea simple, with four pairs of very small inferior laryngeal muscles.

### Cedar Waxwing

Bombycilla cedrorum  
Plate 43  
Chatterers







## FAMILY XXIII

### Sittinæ. Nut Hatches

Bill of moderate length or rather long, straight, slender, conico-subulate, somewhat compressed, with the tips acute or cuneate. Head ovate; neck short; body full. Tarsi rather short, or of moderate length, slender, compressed, with seven or eight scutella; toes long, very slender; hind toe extremely long; anterior little spreading; claws long, little arched, slender, much compressed, acute. Plumage soft and full.

### White-breasted Nuthatch

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*Sitta carolinensis*  
Plate 152  
Nut Hatches





Wings of moderate length, broad, rounded. Tail short, broad, of twelve feathers. Roof of upper mandible very narrow, slightly concave, with three ridges; tongue very slender, with the tip abrupt and bristly; oesophagus without dilatation; stomach round, moderately muscular; intestine short and wide. Trachea simple; with a single pair of large inferior laryngeal muscles. Allied to the Titmice on the one hand, and the Woodpeckers on the other.

### Brown-Headed Nuthatch

---

*Sitta pusilla*  
Plate 125  
Nut Hatches





## FAMILY XXIV

### Trochilinæ. Humming Birds

Bill long, very slender, straight or arched, somewhat depressed at the base, subcylindrical, flexible, acute. Head rather large; neck of moderate length; body moderately robust. Feet very short, rather stout tarsus extremely short; toes of moderate size; the anterior coherent at the base, and nearly of equal length, the hind toe articulated high on the tarsus; claws rather long, arched, much compressed, very acute.

### Ruby Throated Hummingbird

---

*Archilochus colubris*

Plate 47

Humming Birds





Plumage compact above, soft and blended beneath, often with metallic lustre ; wings very long, extremely narrow, falciform, with the first quill longest, the other primaries rapidly diminishing; secondaries extremely short. Tail various, of ten feathers. Tongue very long, slender, with two flat, thin-edged terminal filaments, and extensile by means of the elongation of the hyoid bones, which curve over the head to the fore part of the forehead, and with their muscles slide in groove, like those of the Woodpeckers.

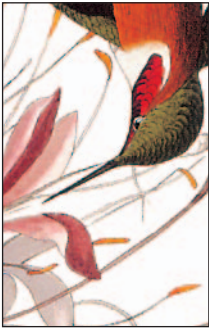
### Black Throated Mango

---

*Anthracothorax nigricollis*  
Plate 184  
Humming Birds







Oesophagus narrow, considerably enlarged about the middle; stomach extremely small, round, moderately muscular, its epithelium dense and longitudinally rugous; intestine very short and of moderate width. Trachea simple, but divided very high up on the neck, so that the bronchi are of excessive length, with a pair of inferior laryngeal muscles.

## Rufous Hummingbird

---

*Selasphorus rufus*  
Plate 379  
Humming Birds





FAMILY XXV  
Alcedinæ. Kingfishers

Bill long, straight, stout, broader than high at the base, much compressed, tapering to a rather acute point, and gape line commencing beneath the middle of the eyes. Head large, ovato-oblong, neck short, and body stout. Tarsus extremely short; anteriorly scaly; anterior toes united for more than half their length, outer longer than inner, hind toe small claws stout, compressed, arched, very acute. Plumage rather compact. Wings rather long, pointed. Tail various, of twelve feathers.

Belted Kingfisher

---

Ceryle alcyon  
Plate 77  
Kingfishers





Tongue very short, fleshy, with its sides parallel, the tip tapering to a blunt point. Roof of upper mandible moderately concave, with a median ridge and oblique lateral grooves. Oesophagus very wide, without crop; stomach very large, round, with its muscular coat very thin; the epithelium dense, very thin, with tortuous rugae; intestine very long, extremely slender; cloaca very large, globular. Trachea with three pairs of inferior laryngeal muscles.

## Red Headed Woodpecker

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*Melanerpes erythrocephalus*  
Plate 27  
Woodpeckers





**FAMILY XXVI**  
**Picinae. Woodpeckers**

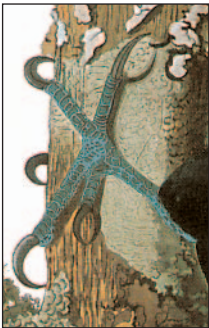
Bill long or of moderate length, straight, stout, angular, tapering, compressed toward the tip, which is generally wedge shaped and abrupt; mandibles nearly equal, outline of the tipper slightly convex, the ridge narrow, sides sloping, with a lateral ridge, edges straight; lower with the angle short and narrow, the dorsal line nearly straight, the ridge narrow, the sides with a faint ridge.

Yellow Bellied Sapsucker

*Sphyrapicus varius*  
Plate 190  
Woodpeckers







Nostrils basal, elliptical or oblong, concealed by reversed bristly feathers. Head of moderate size and oblong, neck of moderate length and body stout. Legs short, tarsus short and moderately stout, anteriorly scutellate, scaly behind. Toes usually four, first short, rudimentary, or sometimes wanting, fourth very large and reversed, equalling or exceeding the third. Claws large, strong, much curved, much compressed, very acute.

## Ivory Billed Woodpecker

---

*Campephilus principalis*  
Plate 66  
Woodpeckers





Plumage soft, blended, rather compact at the back; wings of moderate length or long; with the first quill very small, the third, fourth, and fifth longest. Tail of moderate length, much rounded or cuneate, of twelve feathers, of which the lateral are extremely small, and placed above the next, the rest, but especially the three middle pairs, with the shafts exceedingly large and strong, the webs narrowed toward the end, their filaments deflected and stiff, the tip pointed or emarginate from being worn.

### Three-toed Woodpecker and Hairy Woodpecker

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*Picoides tridactylus*, *Picoides villosus*  
Plate 417  
Woodpeckers





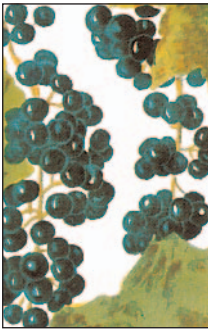
Tongue slender, with the tip horny and furnished with reversed prickles or bristles, capable of being protruded to a great length by the elongation of the hyoid bones, which curve over the head to between the right eye and nostril, or even extend round a great part of that eye. Oesophagus of uniform width; proventriculus extremely large; stomach of moderate size, or rather small,

## Northern Flicker

---

*Colaptes auratus*  
Plate 37  
Woodpeckers





broadly elliptical or rounded, moderately muscular; epithelium thin, dense, and longitudinally rugous; intestine of moderate length, rather wide; cloaca very large, globular, or elliptical. Trachea simple, with a single pair of inferior laryngeal muscles. Nest is a cavity dug in a tree; eggs from four to six, elliptical, white.

The groups present characters that are so undecided, and exhibit such gradual approximations, that I think it better here to consider all our Woodpeckers as of one genus.

### Pileated Woodpecker

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*Dryocopus pileatus*  
Plate 111  
Woodpeckers







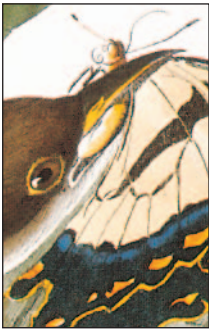
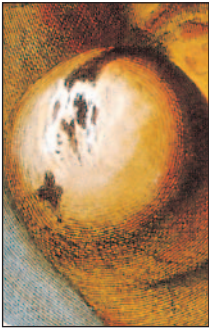
**FAMILY XXVII**  
**Cuculinæ. Cuckoos**

Bill long or of moderate length, broader than high at the base, compressed toward the end, straight or somewhat arched. Upper mandible with the dorsal line convex or arched, the ridge indistinct, the sides convex, the edges arched, sharp, without notch, the tip decurved; lower mandible with the angle rather short, the dorsal lines straight or decurved, the ridge thin, the sides erect or convex, the tip slightly decurved, acute. Nostrils basal, oblong, generally marginate.

Mangrove Cuckoo

*Coccyzus minor*  
Plate 169  
Cuckoos





Head of moderate size; neck of ordinary length; body rather slender. Feet of moderate length; tarsus with broad scutella; toes long, slender, flat beneath, outer directed outwards or backwards. Claws long or of moderate length, arched, compressed, acute. Plumage blended; wings generally large, with the fixed quill short, the third and fourth longest.

## Yellow-Billed Cuckoo

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*Coccyzus americanus*  
Plate 2  
Cuckoos





Tail long, of ten feathers; upper mandible very narrow beneath, with three longitudinal ridges; tongue slender, emarginate, and papillate at the base, the tip horny, thin, lacerated, and slit; oesophagus rather wide, without dilatation; stomach large, round, with the muscular coat very thin, the epithelium soft, rugous; intestine of moderate length and width. Trachea simple, with a single very slender pair of inferior laryngeal muscles.

### Black-billed Cuckoo

---

*Cucyzyus erythroptalmus*  
Plate 32  
Cuckoos





## FAMILY XXVIII

### Psittacinae. Parrots

Bill short, bulging, very strong, deeper than broad, convex above and below; upper mandible crenate at the base, its outline decurved, the sides convex, the edges sharp, with an angular process, the tip trigonal, decurved, elongated, acute; lower mandible with the angle short and wide, the tip thin-edged, rounded, or abrupt. Nostrils basal, round, open in the cere. Head very large; neck of moderate length; body compact.

### Carolina parakeet

*Conuropsis carolinensis*  
Plate 26  
Parrots







Feet short and robust; tarsus short, scaly; toes stout, the outer directed backwards, the third and fourth coherent at the base. Claws stout, curved, acute. Plumage generally blended, but firm. Wings and tail various. Tongue short, fleshy, rounded, or emarginate; oesophagus wide, with a large crop; stomach small, muscular; intestine of moderate length; cloaca globular.

## White-crowned Pigeon

---

*Comumba leucocephala*  
Plate 177  
Pigeons





## FAMILY XXIX

### Columbinæ. Pigeons

Bill short, soft for half its length, horny toward the end. Upper mandible with a tumid fleshy covering at the base, its dorsal line straight, toward the end convex and deflected, the tip narrow, but obtuse; lower mandible at its base wider than the upper, its sides elastic and slender, the angle long and obtuse, the dorsal line short and convex, the tip obtuse. Nostrils linear in the lower and fore part of the nasal membrane. Head small and oblong, neck of moderate length, body rather full.

### Passenger Pigeon

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*Ectopistes migratorius*  
Plate 62  
Pigeons





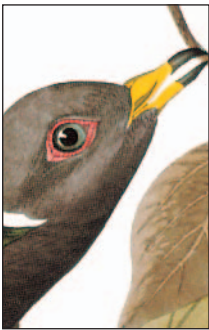
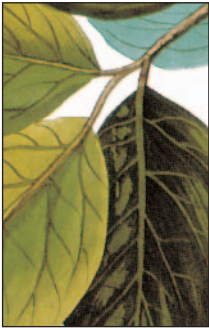
Feet short; tarsus partially feathered, scutellate, or scaly; toes four, on the same level, broad beneath, marginate; the first short, the lateral nearly equal, all scutellate above. Claws moderate, arched, compressed, rather blunt. Plumage generally compact, the feathers with thick spongy shaft, and destitute of plumule. Wings and tail various. Tongue rather broad at the base, toward the end narrow, horny, induplicate, pointed; oesophagus very wide, enlarged into an enormous crop; stomach a very large and strong gizzard, placed obliquely,

## Zenaida Dove

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*Zenaida aurita*  
Plate 162  
Pigeons





its lateral muscles exceedingly thick, the lower prominent, the tendons very large, the epithelium dense, with longitudinal broad rugae, and two opposite grinding surfaces; intestine long, of moderate width; cloaca oblong. Trachea simple, flattened, with a single pair of inferior laryngeal muscles. Nest flat, rudely constructed. Eggs two, elliptical, white.

## Band-Tailed Pigeon

---

*Columba fasciata*  
Plate 367  
Pigeons







## FAMILY XXX

### Pavoninae. Pavinine Birds

Bill rather short, moderately stout, broader than high at the base, somewhat compressed toward the end; upper mandible with its extremity arched, thin-edged, and obtuse; lower narrowed and blunt. Head partially denuded and rather small, oblong neck long, body very large. Feet stout, rather long; tarsus anteriorly scutellate; hind toe elevated, much developed. Wings of moderate length, convex, rounded. Tail very large, of more than twelve feathers.

### Wild Turkey

*Meleagris gallopavo*  
Plate 1  
Pavinine Birds



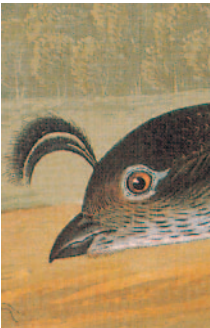


Tongue triangular, pointed; oesophagus dilated into an enormous crop; stomach a very powerful gizzard, rounded or transversely elliptical with very large muscles, and dense epithelium, having two concave grinding surfaces; intestines large, and rather wide. Trachea cylindrical, with out inferior laryngeal muscles. Nest on the ground, rudely constructed. Eggs numerous. Young covered with stiff down.

## Wild Turkey

Meleagris gallopavo  
Plate 6  
Pavonine Birds





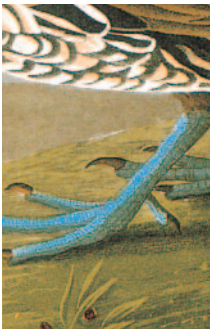
**FAMILY XXXI**  
**Perdicinae. Partridges**

Bill very short, stout, broader than high at the base, with the upper mandible convex, thin edged, obtuse, the lower with the dorsal line convex, the tip rounded. Head small, oblong; neck of moderate length, or rather short; body very bulky. Feet rather of moderate length, stout; tarsus bare, anteriorly scutellate; hind toe rather small, third long, lateral nearly equal, all acute, anterior webbed at the base. Claws moderate, arched, compressed, obtuse. Plumage full and strong, feathers with the plumule much developed.

California Quail

*Callipepla californica*  
Plate 413  
Partridges





Wings rather short, convex, rounded. Tail generally short and rounded, of more than twelve feathers. Tongue triangular, pointed; oesophagus with a very large crop stomach a very strong muscular gizzard, with the lateral muscles highly developed, the epithelium dense, with two concave grinding surfaces; intestine long, and of moderate width. Trachea without inferior laryngeal muscles. Nest on the ground rudely constructed. Eggs numerous. Young covered with stiff down.

### Crested Bobwhite and Mountail Quail

---

*Colinus cristatus*, *Oreortyx pictus*  
Plate 423  
Partridges





## FAMILY XXXII

### Tetraoninae. Grouse



Bill short, stout, with the upper mandible convex, thin edged, without notches, its tip thin-edged, obtuse, the lower mandible with the dorsal line slightly convex, the edges thin, the tip rounded. Head small and oblong, neck of moderate length, body very bulky. Feet short, stout; tarsus partially or entirely feathered; hind toe small, third long, lateral nearly equal, all scutellate, anterior webbed at the base. Claws moderate or long, arched, rather depressed, blunt. Plumage fall and soft; feathers with the plumule much developed. Wings rather short, convex, rounded. Tail various, of more than twelve feathers.

### Ptarmigan

*Lagopus mutus*

Plate 368

Grouse





A bare coloured space on each side of the neck usually concealed by the feathers, but in some species capable of being distended so as to protrude. A bare red membrane over the eye, more developed in the males. Tongue triangular, pointed; oesophagus with an enormous crop; stomach a very powerful gizzard, having the lateral muscles extremely developed, the epithelium dense, with two concave grinding surfaces; the intestine long and wide. Nests on the ground, rudely constructed. Eggs numerous, spotted. Young covered with stiff down.

## Willow Ptarmigan

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Lagopus lagopus  
Plate 191  
Grouse





## FAMILY XXXIII

### Rallinæ. Rails

Bill moderately stout, or slender, short or elongated, compressed, with the point narrow, but obtuse. Head small, oblong, compressed; neck of moderate length, body large, much compressed. Feet large; tibia bare at lower part; tarsus stout, compressed, with very broad, anterior scutella; toes very long, scutellate, marginate; hind toe rather short. Claws long, little arched, compressed, acute. Plumage blended, but stiff. Wings short, convex, rounded, tail very short, rounded.

### Common Moorhen

---

*Gallinula chloropus*  
Plate 244  
Rails





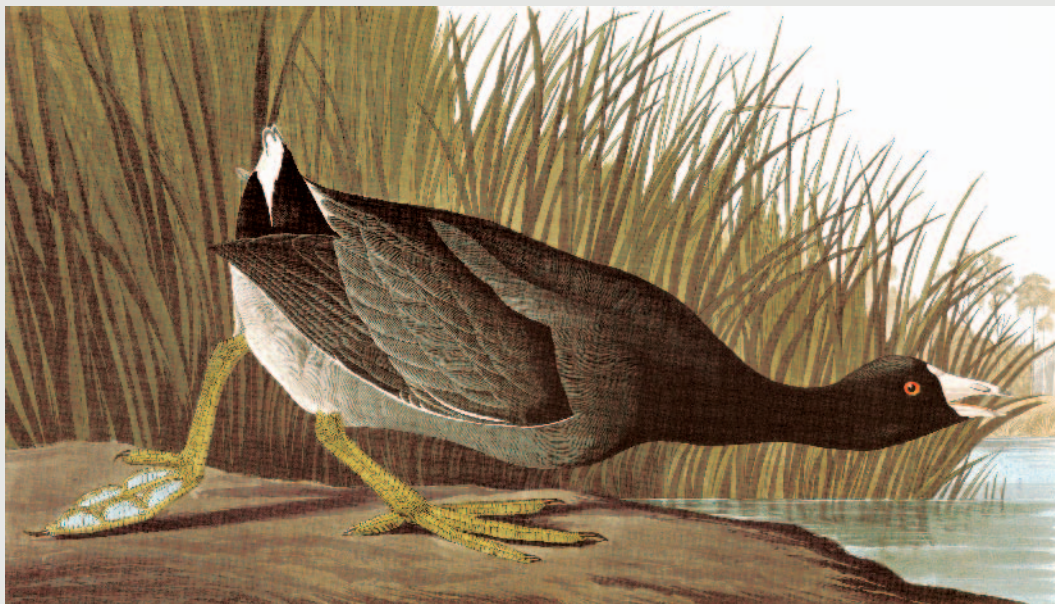
Tongue slender, channelled above, tapering to a bristly point; oesophagus long, rather narrow; proventriculus bulbiform; stomach rounded, compressed, very muscular, with the lateral and inferior muscles prominent, the epithelium dense, with two flattish grinding surfaces; intestine long, of moderate width; cloaca globular. Trachea simple, flattened, with a pair of slender inferior laryngeal muscles. Nest bulky, and rudely constructed, on the ground, or supported by grass, or on trees. Eggs numerous, oblong. Young covered with stiff black down.

## American Coot

---

*Fulica americana*  
Plate 239  
Rails







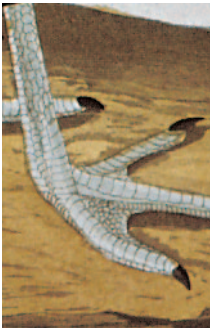
**FAMILY XXXIV**  
**Gruinæ. Cranes**

Bill about the length of the head, straight, depressed at the base, compressed toward the end, rather obtuse. Nostrils basal, lateral oblong. Head rather small, oblong; neck long; body large, compressed. Legs long and slender; tibia bare at the lower part; tarsus somewhat compressed, anteriorly scutellate; toes rather long, first short and somewhat elevated; claws obtuse. Plumage full and rather compact. Wings broad, convex, the inner secondaries elongated and decurved; tail short, rounded.

Whooping Crane

*Grus americana*  
Plate 226  
Cranes





FAMILY XXXV  
Charadriinæ. Plovers

Bill short, straight, subcylindrical, obtusely pointed; upper, mandible, with its dorsal line straight for half its length, afterwards convex. Nasal groove bare, extended along two thirds of the length of the bill. Head of moderate size, rather compressed, rounded in front. Eyes large. Neck rather short; body ovate, rather full. Plumage soft, blended, somewhat compact; wings long, pointed, with the first quill longest.

Black-Bellied Plover

---

*Pluvialis squatarola*  
Plate 334  
Plovers





Tail of moderate length, rounded, or with the middle of twelve feathers projecting. Oesophagus of moderate width; stomach rounded, compressed, very muscular, with the epithelium dense and rugous; intestine rather long, and of moderate width. A single pair of inferior laryngeal muscles. Shallow nests on the ground; eggs generally four, large, pyriform, spotted. Young densely covered with down, and able to walk immediately after birth.

### Lesser Golden Plover

---

*Pluvialis dominica*  
Plate 300  
Plovers





## FAMILY XXXVI

### Scolopacinae. Snipes

Bill larger than the head, subulate, slender, straight, recurved, or decurved. Upper mandible with the nasal groove very long, the edges flattened or rounded, the tip generally rather obtuse. Lower mandible with the angle extremely long and narrow, the sides longitudinally grooved. Nostrils basal, linear, small. Head rather small, oblong, anteriorly rounded; neck of moderate length or long; body ovate, deep.

### Spotted Sandpiper

---

*Tringa macularia*  
Plate 310  
Snipes







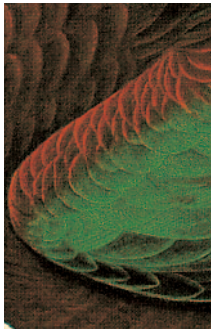
Legs generally long, slender; tarsus long, compressed, scutellate; toes generally four, first small, sometimes wanting; anterior toes of moderate length, slender. Claws small, arched, compressed, rather acute. Wings long, pointed, with the first quill longest, and the inner secondaries tapering and much elongated; tail rather short, of twelve feathers. Tongue long, slender, trigonal, pointed; oesophagus of moderate width, stomach oblong or round, moderately muscular, with dense rugous epithelium; intestine long, of moderate width. Trachea flattened, with a single pair of inferior laryngeal muscles.

## White Rumped Sandpiper

---

*Calidris fuscicollis*  
Plate 278  
Snipes



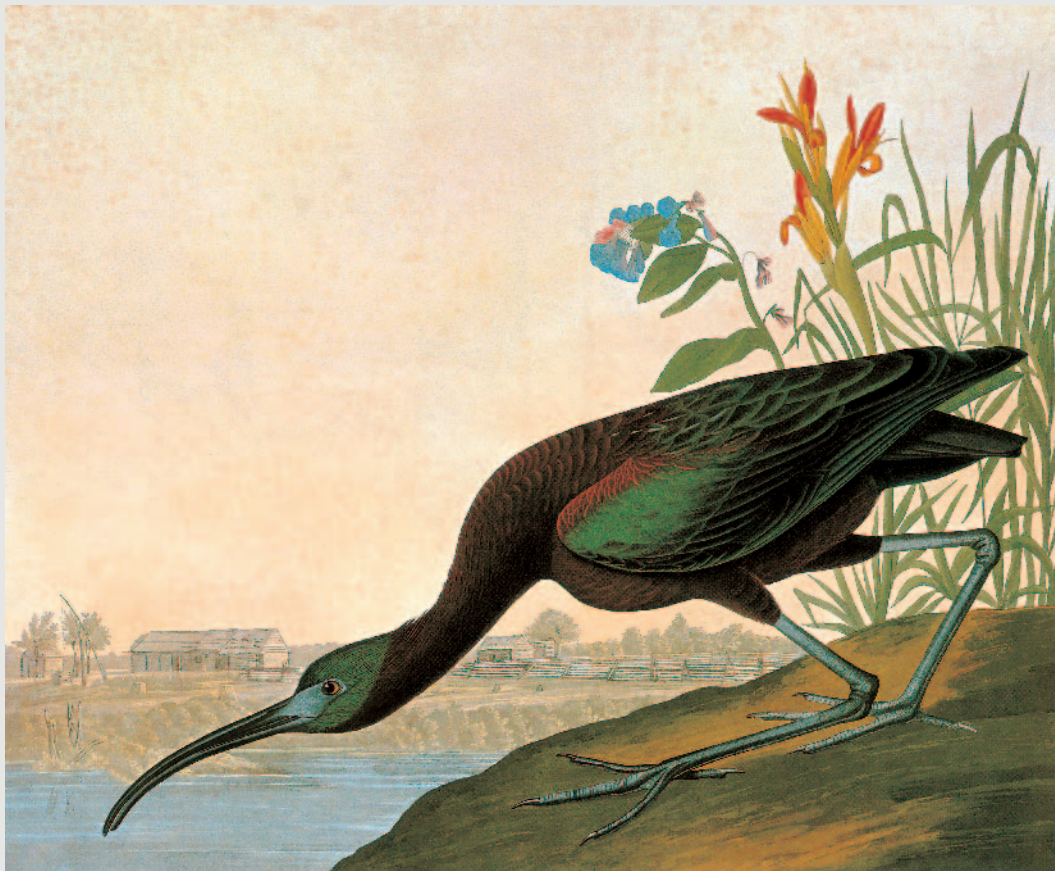


**FAMILY XXXVII**  
**Tantalinae. Ibises**

Bill very long, acute, rather stout at the base, obtuse. Nostrils basal, linear or oblong. Head bare in front, rather large or of moderate size; neck long and slender; body ovate. Legs long and rather stout; tibia largely bare; tarsus reticulate, sometimes scaly in front; toes four, articulated at the same level, the anterior webbed at the base, the first more slender.

Glossy Ibis

*Plegadis falcinellus*  
Plate 387  
Ibises



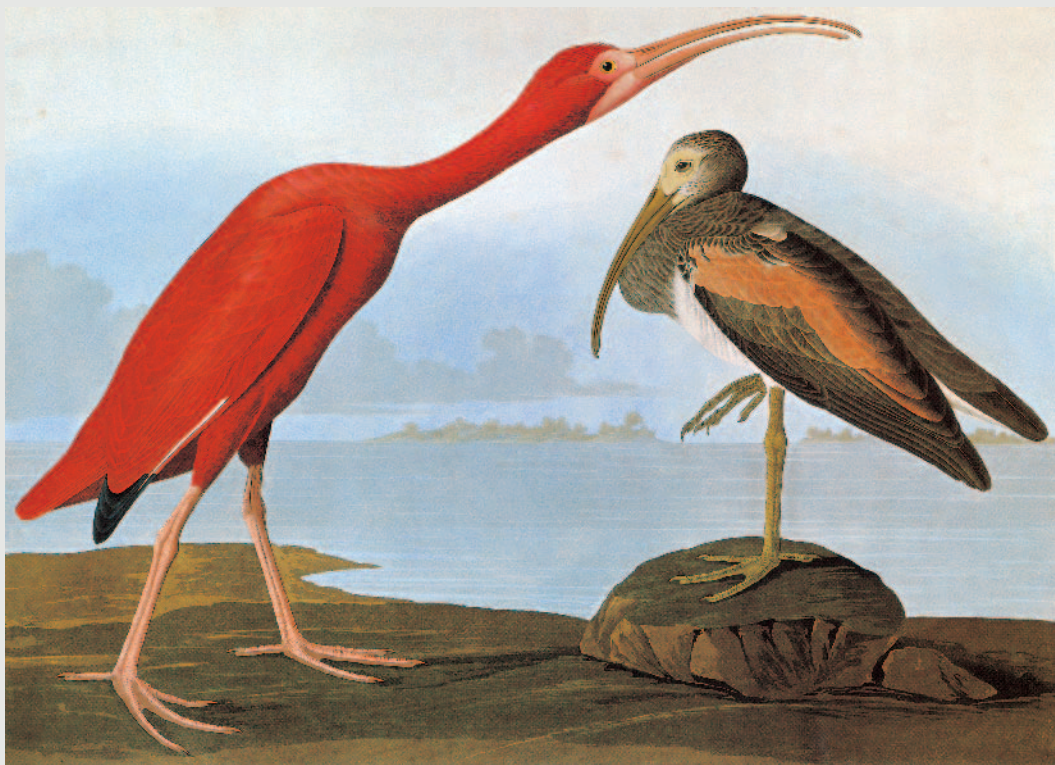


Claws arched, compressed, rather obtuse. Wings long and very broad, with the second quill longest. Tail short, of twelve feathers. Tongue triangular, extremely short, flat, and thin. Oesophagus wide; stomach large, muscular, broadly elliptical, with the epithelium dense, longitudinally rugous; intestines generally of moderate length and width, cloaca globular. Trachea without inferior laryngeal muscles.

### Scarlet Ibis

---

*Eudocimus ruber*  
Plate 397  
Ibises



FAMILY XXXVIII  
Ardeinæ. Herons

Bill longer than the head, stout, tapering, compressed, pointed, its edges often irregularly serrate. Head oblong, compressed; neck very long; body much compressed. Eyes large or moderate. Nostrils basal, linear, longitudinal. Legs long, rather slender; tibia bare to a great extent; tarsus compressed, anteriorly scutellate; toes rather long, the first on the same place, of moderate size, the outer toe a little longer than the inner, and with a slight web at the base; all compressed and scutellate.

Snowy Egret

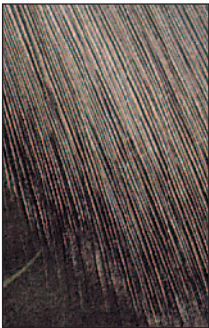
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*Egretta thula*  
Plate 242  
Hérons









Claws rather long, arched, compressed, acute, that of the hind toe larger and more curved. Plumage blended. Wings long, very broad, with the outer four quills longest, secondaries very long. Tail very short, nearly even, of twelve rather weak feathers. Oesophagus very wide, without dilatation; stomach small, very thin, with the inner coat soft and smooth; intestine very long and extremely narrow; no coecal appendages,

## Tricolored Heron

---

*Egretta tricolor*  
Plate 217  
Herons





but the large intestine forming a small sac at its commencement; cloaca very large, globular. Trachea simple, generally cylindrical, with the bronchi wide, and a single pair of slender inferior laryngeal muscles. Nests large, flat, widely constructed, placed on trees, bushes, sometimes on the ground; eggs from three to four, oval, light blue. Young remain in the nest until fledged.

## Great Blue Heron

---

*Ardea herodias*  
Plate 281  
Hérons





**FAMILY XXXIX**  
**Anatinae. Ducks**

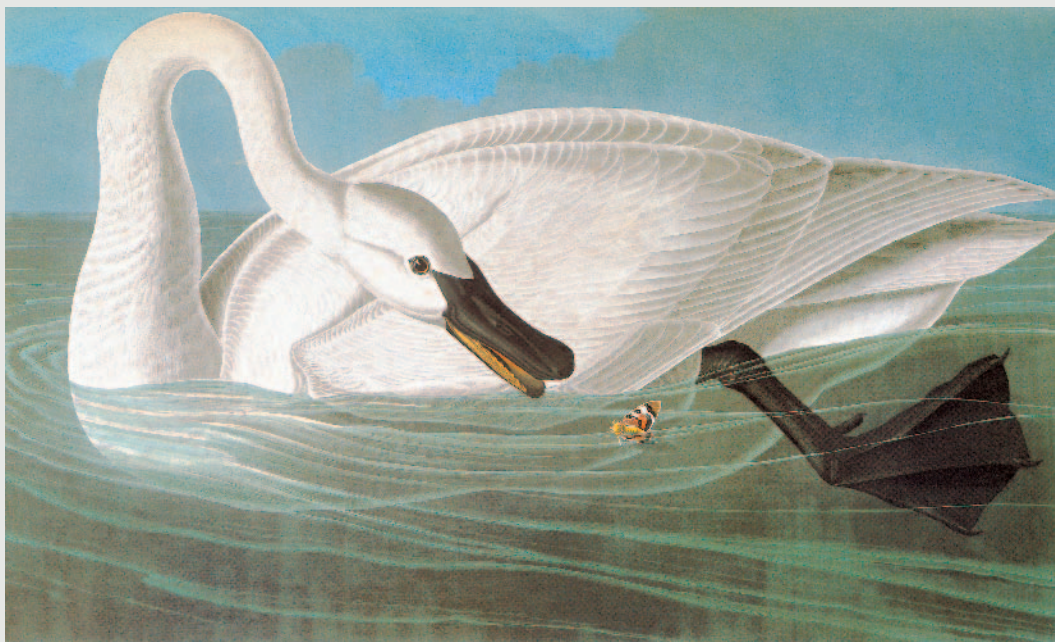
Bill of moderate length, stout, straight, depressed toward the end, obtuse, covered with soft skin; upper mandible transversely convex, with the margins internally lamellate, the tip furnished with a decurved horny broad unguis; lower mandible with the angle long and narrow, the crura slender, flattened, the edges internally lamellate, the tip a flattened unguis. Nostrils elliptical, open, subbasal.



Trumpeter Swan

---

Cygnus buccinator  
Plate 406  
Ducks





Head of moderate size; neck long or of moderate length, slender; body full; legs generally short, stout, with little of the tibia bare; tarsus scutellate; toes four, first small; anterior three palmate. Claws moderate, arched, compressed, obtuse. Plumage very full, dense, soft. Wings of moderate length, curved, acute, outer two quills longest. Tail short, of twelve or more feathers. Tongue fleshy, with a median groove, lateral reversed papilla, laminae, or bristles, and a semicircular thin horny tip.

## Mallard

*Anas platyhynchos*  
Plate 221  
Ducks







Oesophagus narrow, slightly enlarged at the lower part of the neck; stomach a transversely elliptical gizzard, of which the lateral muscles are excessively developed, the epithelium dense, with two concave grinding surfaces; intestine long and wide; coeca long, cylindrical, contracted at the base. Trachea various, generally much enlarged at the bifurcation, without inferior laryngeal muscles, or only with the slips of the lateral muscles prolonged. Nests generally on the ground, eggs numerous. Young adorned with stiff down, and able to walk and swim from birth.

### Canada Goose

*Branta canadensis*  
Plate 277  
Ducks





## FAMILY XL

### Merginæ. Mergansers

Bill rather large, straight, and slender but strong, tapering, higher than broad at the base, nearly cylindrical toward the end. Upper mandible with the dorsal outline sloping gently to the middle, then straight, along the unguis suddenly decurved. The ridge broad and flattened at the base, then convex, the sides sloping, toward the end convex, the edges serrate internally with oblique dentiform lamellae, the unguis oblong, much curved, abruptly rounded at the end.

#### Red-breasted Merganser

---

*Mergus serrator*  
Plate 401  
Mergansers





The nasal groove is elongated, covered by the soft skin of the bill; lower mandible with the angle very narrow and extended to the unguis, which is obovate, the sides nearly erect, with a long narrow groove, the edges internally serrate, the unguis convex, thick edged. Head rather large and compressed, oblong. Neck of moderate length, body full, depressed, and rather elongated.

### Smew

---

*Mergellus albellus*  
Plate 347  
Mergansers





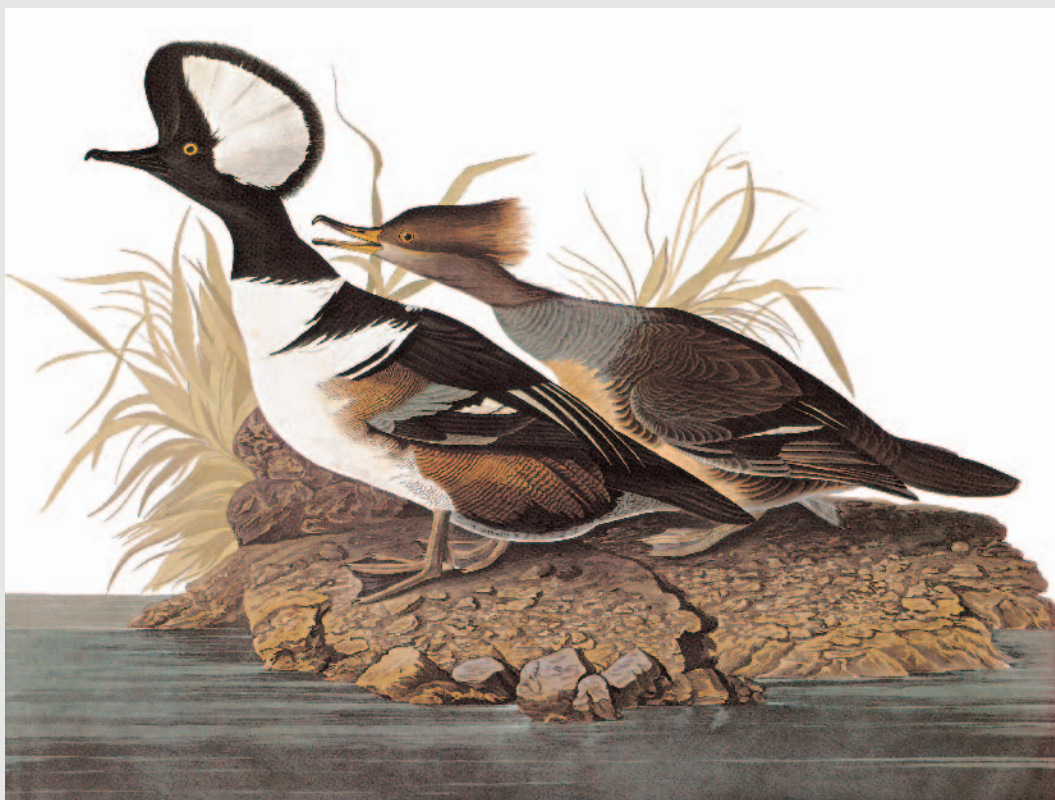
Feet placed far behind, stout; tibia bare for a short space; tarsus very short, compressed, anteriorly covered with small scutella, and another series on the lower half externally. Hind toe very small, with an inferior free membrane; anterior toes half as long again as the tarsus, second shorter than the fourth, which is almost as long as the third, all scutellate, and connected by anteriorly concave webs.

## Hooded Merganser

---

*Lophodytes cucullatus*  
Plate 232  
Mergansers







Claws rather small, moderately arched, compressed, acute. Plumage moderately full, dense, soft, glossy, blended beneath. Wings of moderate breadth, convex, acute; inner secondaries elongated and tapering. Tail short, much rounded, of more than twelve feathers. Upper mandible with an internal series of small papillae or laminae on each side, besides those on the margin.

Tongue long, fleshy, emarginated at the base, tapering with a double row of slender reversed papillate along the upper surface,

## Common Merganser

---

*Mergus merganser*  
Plate 331  
Mergansers





and two lateral series of filaments on each side, the diameter uniform; stomach a strong gizzard of moderate or small size, with the lateral muscles thick; the epithelium dense and longitudinally rugous; intestine long, rather narrow coeca rather long. Trachea with one or two extensive dilatations, besides the enormously developed tympanum at the bifurcation; no inferior laryngeal muscles. Nests on the ground, or in hollow trees. Eggs numerous.

### Brandt's Cormorant

---

*Phalacrocorax penicillatus*  
Plate 412  
Pelicans





## FAMILY XII

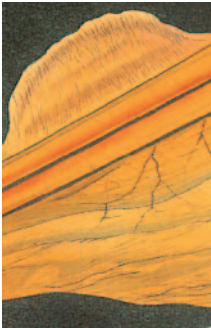
### Pelecaninæ. Pelicans

Bill longer than the head, rather slender, straight, upper mandible with the ridge separated from the side by a groove, and terminated by a narrow, generally decurved, pointed unguis; lower mandible with the crura elastic and extensile, the angle very long and narrow. Nostrils basal, lateral, linear, small, or obsolete. Space around and before the eye generally bare, as is a portion of the gular sac. Head generally of moderate size, but various; neck long; body elongated, rather slender.

### Anhinga

Anhinga anhinga  
Plate 316  
Pelicans





Feet short and stout; tibia bare at its lower part ; tarsus short, very stout, compressed, scaly or scutellate in front; toes four, all connected by webs, and scutellate; first small, fourth longest. Claws short, strong, curved, rather blunt, that of the third toe generally pectinate. Plumage soft, blended, on the back compact and imbricated. Wings long; tail of moderate length, narrow, rounded or tapering.

## American White Pelican

---

*Pelecanus erythrorhynchos*  
Plate 311  
Pelicans







Tongue extremely small, triangular, fleshy; oesophagus excessively wide ; a gular sac, sometimes of enormous capacity; proventricular belt generally discontinuous; stomach very small, slightly muscular, epithelium a smooth pyloric lobe; intestine very large and slender; coeca small, cylindrical; cloaca globular. Trachea simple, flattened; no inferior laryngeal muscles.

## Double Crested Cormorant

---

*Phalacrocorax auritus*  
Plate 252  
Pelicans





**FAMILY XLII**  
**Larinæ. Gulls**

Bill of moderate length, straight, compressed, acute upper mandible with the dorsal line generally straight until toward the end, when it is decurved, the ridge convex. The nasal groove is rather long, the edges sharp, direct, overlapping, the tip rather acute and declinate; lower mandible with the angle long and very narrow, the dorsal line ascending and nearly straight, with an angular prominence at its commencement.

Bonaparte's Gull

---

Larus philadelphia  
Plate 324  
Gulls





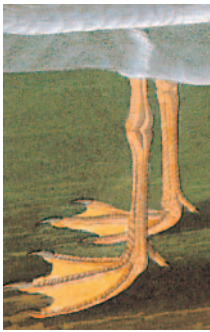
Nostrils submedial or basal, oblong. Head of moderate size, ovate; neck of moderate length ; body rather stout. Legs short or of moderate length; tibia bare at its lower part; tarsus anteriorly scutellate; toes four, the first very small, free, the third longest; anterior toes connected by webs. Claws small, arched, compressed, rather acute. Plumage full, soft, blended, and somewhat compact on the back and wings, the latter, long and pointed; tail of twelve feathers, even, rounded, or emarginate.

## Common Tern

---

*Sterna hirundo*  
Plate 309  
Gulls





Tongue long, slender, pointed; oesophagus very wide; stomach rather small, moderately muscular, with a dense, longitudinally rugous-epithelium; intestine of length and width. Trachea simple, with a single pair of inferior laryngeal muscles. Nests on the ground, rudely constructed. Eggs few, not exceeding four, spotted. Young covered with down.

### Forster's Tern and Trudeau's Tern

---

*Sterna forsteri*, *Sterna trudeaui*  
Plate 409  
Gulls







**FAMILY XLIII**  
**Procellarinæ. Fulmars**

Bill generally shorter than the head, moderately stout, compressed. Upper mandible with the ridge formed of two generally united plates, at the anterior part of which, usually about half the length of the bill, are the nostrils; the sides separated by a groove, the tip a decurved, compressed, pointed unguis. Lower mandible with the angle very long and narrow, the tip more or less decurved.

Northern Fulmar

*Fulmarus glacialis*  
Plate 264  
Fulmars





Head of moderate size, ovate, neck of moderate length; body compact. Feet of ordinary length, rather slender; tibia bare below for a short space; tarsus little compressed, anteriorly scutellate; toes four, the first extremely small and elevated, with a conical deflected claw; anterior toes webbed; the third and fourth nearly equal. Claws arched, compressed, acute.

### Long-tailed Jaeger

*Stercorarius longicaudus*  
Plate 267  
Fulmars

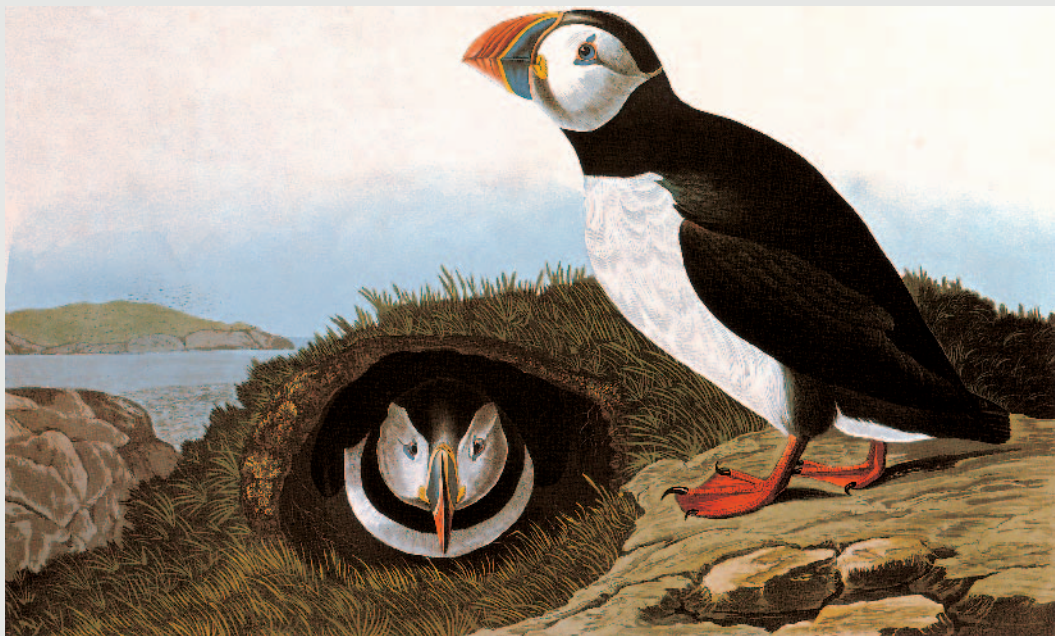


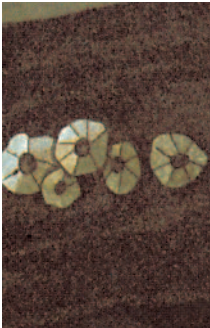


Plumage full, soft, rather compact. Wings long, rather broad and pointed, the first quill generally longest. Tail short, of from twelve to sixteen feathers. Oesophagus very wide, often enormously dilated, especially at its lower part, stomach small and moderately muscular; intestine of moderate length. Trachea simple, with a single pair of inferior laryngeal muscles.

## Atlantic Puffin

*Fratercula artica*  
Plate 213  
Auks





**FAMILY XLIV**  
**Alcinæ. Auks**

Bill shorter than the head, much compressed, generally very high, in the species approaching the next family rather slender. Nostrils small, linear, basal, and submarginal. Head large, broadly ovate, anteriorly narrowed; neck short and thick; body full, compact, ovate, or somewhat elongated. Feet short, rather stout, placed far behind; tibia bare for a short space; tarsus very short, compressed, anteriorly scutellate;

Horned Puffin

*Fratercula corniculata*  
Plate 293  
Auks







toes three, of moderate length, scutellate, webbed. Claws strong, arched, acute. Plumage dense, blended, soft. Wings small, narrow, pointed. Tail very short. Tongue slender, trigonal; oesophagus very wide, within the thorax extremely dilated ; stomach rather large, muscular, with the epithelium dense and longitudinally rugous; intestine long and wide. Trachea simple, with a single pair of inferior laryngeal muscles. Egg generally single.

## Black Guillemot

---

*Cepphus grylle*  
Plate 219  
Auks





## FAMILY XLV

### Columbinae. Divers and Grebes

Bill the length of the head, straight, rather stout, much compressed, pointed; upper mandible with the dorsal line declinate, almost straight, or towards the end convex; nasal groove rather long, feathered at the base. Nostrils basal, linear, direct, pervious. Feet stout, short, placed extremely far behind; tarsus extremely compressed; toes four, the first very small, and lobed.

#### Common Loon

---

*Gavia immer*

Plate 306

Divers and Grebes





The anterior united by webs, which in some are lobed. Plumage dense, short, glossy, and generally silky beneath. Wings small, very narrow, acute. Tail very short, sometimes extremely small, and forming a slight tuft. Tongue slender, trigonal, tapering; oesophagus very wide in its whole length, or narrowed in the anterior part with the proventriculus wide; stomach generally large, muscular, with a dense rugous epithelium; intestine rather long and wide.

## Red-necked Grebe

---

*Podiceps grisegena*  
Plate 298  
Divers and Grebes



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