



A.McCallum

Groups of Birds

Part of Atlanta Audubon Society's *Learning About Birds* curriculum series.



How do people understand the diversity of birds?

We classify them. **Classification** is the way humans organize things by characteristics, or observable features. People classify everything from rocks to dogs, movies to mushrooms. This is how we make sense of our world. Scientists have developed biological classification to better understand the vast array of organisms.

Biological classification defines relationships among living things and helps frame scientific research. A living thing is organized into a hierarchy, or system of rankings, according to its characteristics. The ranks of biological classification, starting with the highest rank, are Kingdom, Phylum, Class, Order, Family, Genus, and Species. Within each rank, there is a scientific name, and many times, a common name. A **scientific name** is a universal name usually in the Latin language. A **common name** is one given in a language that a cultural region uses, such as English or Spanish. Examine the biological classification of the Northern Flicker below to understand better how we group birds.



I.Schumacher

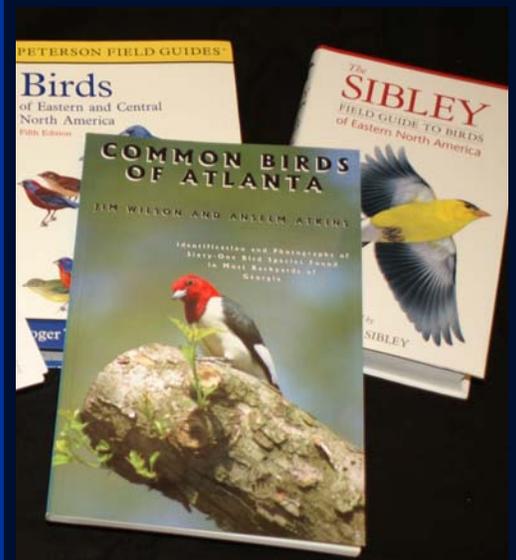


Kingdom *Animalia*
Phylum *Chordata*
Class *Aves*
Order *Piciformes*
Family *Picidae*
Genus *Colaptes*
Species *Colaptes auratus*
Subspecies *Yellow-shafted*

C.Muise

Using Classification to Navigate a Field Guide

Bird field guides are commonly arranged by order and family. In this format, birds that share similar characteristics are placed close together within the guide. What are the benefits to this format? Can you think of a different way to organize a field guide to birds?



E.Toriani-Moura

Orders of Birds in Eastern North America

There are 20 common orders of birds that live in, breed in, or migrate through Eastern North America. These are the current groupings as of 2011. The scientific names, common names, and key characteristics of each group are shown



Gaviiformes - Loons

- Diving water birds
- Spear-like bill



Charadriiformes - Gulls, terns, sandpipers, plovers, stilts, oystercatchers, skimmers, and puffins

- Shorebirds
- Large feet and long legs



Podicipediformes - Grebes

- Diving water birds
- Lobed feet



Procellariiformes - Petrels and shearwaters

- Soaring seabirds
- Tubular nostril



Gruiformes - Cranes, rails, coots, and limpkins

- Long legs for wading
- Do not have crops



Suliformes - Cormorants, darters, boobies, frigatebirds, and gannets

- 4 webbed toes
- Bill has pouch for prey



Galliformes - Grouse, quails, pheasants, chickens, and turkeys

- Ground dwellers
- Specialized feet for walking and scratching



Pelecaniformes - Pelicans, herons, spoonbills, and ibises

- Long bill
- Carnivorous



Caprimulgiformes - Nighthawks and nightjars

- Large mouth with bristles for catching insects
- Active at dusk, dawn, and nighttime



Anseriformes - Ducks, geese, and swans

- 3 webbed toes
- Large, flattened bill



Cuculiformes - Cuckoos

- Slender body and long tail
- One of the oldest groups of birds



Ciconiiformes - Storks

- No feathers on head
- Submerges long, curved bill in water to feed



Columbiformes - Pigeons and doves

- Large crops
- Ability to suck up water



Strigiformes - Owls

- Nocturnal birds of prey
- Large, forward-facing eyes on a feathered facial disc



Accipitriformes - Hawks, eagles, vultures, kites, and Osprey

- Sharp, hooked bill
- Catch prey with feet



Coraciiformes - Kingfishers

- Fused toes
- Big head and bill



Falconiformes - Falcons and caracaras

- Notched, hooked bill
- Catch prey with bill



Piciformes - Woodpecker- Chisel bill for drilling into tree



Passeriformes - Perching birds

- Includes half of all species of birds
- Large brains and complex vocalizations



Apodiformes - Swifts and hummingbirds

- Fast wing flapping
- Tiny feet



Classification Changes Constantly

The biological classification of birds is constantly changing. As scientific research methods expand and improve, so does our knowledge of living things. Many birds are being reclassified due to new data emerging from DNA studies. For example, pelicans used to be considered a close relative to cormorants and darters. However, new DNA evidence indicates that pelicans are more closely related to herons and ibises.

~Dr. J. Robert McNeal, *Biology*, Kennesaw State University
Dr. McNeal is a member of the Checklist and Records Committee of the Georgia Ornithological Society.



The "Key" to Bird Classification

One way to better understand the similarities and differences among birds is to create a dichotomous key. A **dichotomous key** is a tool used for identifying unknown organisms. It presents two choices describing a difference in a characteristic. Choosing one of the options leads you to another pair of descriptions. Eventually, a choice will lead to an answer. Try keying out the dabbling duck below.



1. The bill is short and comes to a point. Go to 2.
The bill is long and rounded. Go to 3.
2. The bill is gray. It is a Wigeon.
The bill is yellow or orange. It is a Wood Duck.
3. The bill is longer than the width of the head. It is a Northern Shoveler.
The bill is long as or shorter than the width of the head. Go to 4.
4. The underside of the bird is speckled. Go to 5.
The underside of the bird is white. It is a Mallard.
5. The head has white on it. It is a Blue-winged Teal.
The head does not have white on it. It is a Green-winged Teal.



Chippy Challenge

Try creating your own dichotomous key.

1. Find pictures of 4 birds.
2. Compare and contrast their characteristics.
3. Write a key following the format above.
4. Test your key.
5. Trade it with a partner and try using their key.



For more information on the Learning About Birds curriculum, please visit www.atlantaaudubon.org.
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