Identify Birds

Birds in the same general group often have the same body shape and proportions, although they may vary in size. Silhouette alone gives many clues to a bird's identity, allowing birders to assign a bird to the correct group or even the exact species.

In the above illustration are 23 different birds. How many can you recognize just by their silhouettes? Look carefully - don't miss the ones hiding in the leafy tree!

Pay attention to the following:

- body shape
- proportions of the head, legs, wings
- tail shape
- length of the bill

Cardinal
- Medium-sized finch-like songbird with long tail
- Strongly conical, seed-eating bill
- Crested head

Crow
- Large size
- Stout body, medium-length tail
- Heavy, strong bill

Dabbling Duck
- Typical duck shape, with heavy body
- Short tail, held above water's surface
- Horizontally flattened bill

Dove
- Plump body, with short legs and neck
- Small head
- Pointed wings
- Slight swelling at base of upper bill

Finch
- Small to medium size
- Conical, seed-eating bill
- Notched tail
Grackle
- Slender body, long tail
- Strong, slightly curved bill

Jay
- Mid-sized crow-relative with long tail
- Some have crest on head

Kestrel
- Small bird of prey
- Typical streamlined falcon shape, with long pointed wings and long tail
- Short raptorial (sharply hooked) bill, feet with sharp talons

Kingbird
- Medium-sized perching bird with relatively large head
- Broadly-flattened, typical flycatcher bill

Kingfisher
- Large head, often with shaggy crest
- Very short legs and tail
- Long, strong, pointed bill

Meadowlark
- Chunky body, short tail
- Strong legs
- Straight, strong, pointed bill

Mockingbird
- Long, slender body, long legs and tail
- Small, slender bill

Nuthatch
- Small size, chunky body, short tail
- Straight, slightly upturned bill
- Strong legs and feet
- Clings to tree trunks, usually head downwards

Plover
- Small to medium-sized shorebird
- Relatively large head, short neck
- Short, rather thick bill, sometimes slightly swollen at tip
- Ground dwelling

Quail
- Chunky, rounded body, with short tail
- Small head, very short neck
- Ground dwelling
**Screech-Owl**
Small nocturnal bird of prey
Chunky body, large head
Feathered tufts on head resemble ears
Upright stance

**Shrike**
Medium-sized predatory songbird
Relatively large head
Perches horizontally
Bill with strong hook at tip

**Starling**
Chunky body, short tail
Strong legs and feet
Straight bill

**Swallow**
Small size
Very slender body, short legs, and long, pointed wings
Small bill with wide gape

**Vireo**
Small, tree-dwelling bird
Small, cylindrical bill (slight hook at tip, visible only at close range)
Perches horizontally, often leans forward while foraging

**Warbler**
Very small, tree-dwelling bird
Perches horizontally
Slender insect-eating bill

**Woodpecker**
Clings to tree trunks, head upwards
Uses tail as prop as it hitches its way up tree trunks
Strong but short legs and strong feet
Straight, strong bill for excavating wood

**Wren**
Very small size
Compact body, with relatively long legs
Thin, slightly curved bill
Holds tail upright
Skulking habit
In order to describe a bird, ornithologists divide its body into topographical regions: beak (or bill), head, back, wings, tail, and legs. To help with identification, many of these regions are divided still further. This diagram of regions of the bird's body shows some of the commonly used descriptive terms.

Birds display a huge variety of patterns and colors, which they have evolved in part to recognize other members of their own species. Birders can use these features - known as field marks - to help distinguish species.

Pay particular attention to the field marks of the head and the field marks of the wing.

Field Marks of the Head
When identifying an unknown bird, the following field marks of the head are particularly important:

- **Eyebrow stripe** (or superciliary line, above the eye)
- **Eyeline** (line through the eye)
- **Crown stripe** (stripe in the midline of the head)
- **Eyering** (ring of color around eye)
- **Throat patch**
- **Color of the lore** (area between base of beak and eye)
- **Whisker mark** (also called mustache or malar stripe)
- **Color of upper and lower beak**
- Presence or absence of **crest**

Beak shape and size are also important identifying characteristics.
Field Marks of the Wing
In a few groups, notably warblers and vireos, the presence of wing markings gives positive identification even if the bird is in non-breeding plumage. In other groups, such as flycatchers and sparrows, the absence of any wing markings may be an important distinguishing characteristic. Note the presence or absence of the following:

- Wingbars
- Wing patches

Striking a Pose
Posture clues can help place a bird in its correct group. Watch an American Robin, a common member of the thrush family, strut across a yard. Notice how it takes several steps, then adopts an alert, upright stance with its breast held forward. Other thrushes have similar postures, as do larks and shorebirds.

Vertical Posture
Certain bird groups have distinctive vertical posture when perched on a branch. Flycatchers, hawks, and owls typically sit in an upright pose with tails pointing straight down.

Horizontal Posture
Other birds perch horizontally on vegetation with tails pointing out at an angle, for instance vireos, shrikes, crows, and warblers.

Distinguishing Similar Birds
Distant perched crows and hawks may look alike, but paying attention to their different postures may help to tell them apart. The Red-tailed Hawk perches upright, whereas the similarly-sized American Crow perches horizontally.
Size

Once you have assigned a bird to its correct group, size can be a clue to its actual species. Be aware, though, that size can be difficult to determine in the field, especially under poor lighting conditions or at a distance. Size comparisons are most useful when the unknown bird is seen side-by-side with a familiar species. In the absence of that, you can use the sizes of well-known birds, such as the House Sparrow, American Robin, and American Crow, as references when trying to identify an unfamiliar bird.

Woodpeckers:

A crow-sized woodpecker would be a Pileated, but one the size of a sparrow might be a Downy Woodpecker (or a Ladder-backed Woodpecker in the Southwest).

Confusing Coloration: A yellow-and-black finch smaller than a sparrow is probably an American Goldfinch. Evening Grosbeaks have similar colors and patterns, but are almost robin-sized.

In-between Sizes:

Sometimes you need two reference birds for comparison. A Cedar Waxwing is bigger than a sparrow but smaller than a robin. A Blue Jay is larger than a robin but smaller than a crow.
**Flight Pattern**

Most birds fly in a straight line, flapping in a constant rhythm, but certain bird groups have characteristic flight patterns that can help identify them. Birds of prey may be identified by the characteristic way they hold their wings when viewed flying toward you. Here are some useful identification tips:

**Up-and-down Flight Pattern**

Finches exhibit a steep, roller-coaster flight, whereas woodpeckers generally fly in a pattern of moderate rises and falls.

**Flapping Versus Gliding**

Flying accipiters such as Sharp-shinned Hawks, Cooper's Hawks, and Northern Goshawks typically make several wing flaps followed by a glide. Buteos, such as the Red-tailed Hawk, are usually seen soaring. Dashed lines indicate flapping, solid lines soaring.

**Crow Versus Raven**

Flight patterns can sometime distinguish similar species. The American Crow, for instance, flies with deliberate, flapping wingbeats. The similar Common Raven often alternates flapping with hawk-like soaring.
Head-on Flight Profiles

Head-on flight profiles may also give identity clues. Soaring Turkey Vultures may look like hawks, but they hold their wings in a shallow V-shape, whereas most hawks and eagles hold their wings out flat. Black Vultures also have a flatter, more hawk-like profile. Northern Harriers hold their wings in more of a V-shape, but their slow, flapping flight near the ground generally gives away their identity. Notice how the Bald Eagle’s profile is even more flat than that of a typical hawk, such as the Red-tailed Hawk.

Habitat

In general, each species of bird occurs only within certain types of habitat. And each plant community - whether abandoned field, mixed deciduous/coniferous forest, desert, or freshwater marsh, for instance - contains its own predictable assortment of birds. Learn which birds to expect in each habitat. You may be able to identify an unfamiliar bird by eliminating from consideration species that usually live in other habitats. (Be aware, though, that during spring and fall migration birds often settle down when they get tired and hungry, regardless of habitat.)

Below are some common birds of common plant communities. As you'll see, bird groups such as sparrows, wrens, hawks, and warblers are common to each community, but the actual species differ depending on the habitat.

Abandoned Field

Agricultural fields no longer used for farming form an "old field" habitat as they slowly revert to forest. In the Northeast and the Mid-Atlantic states, the original grasses are replaced with plants such as goldenrod, mullein, asters, and brambles (blackberry). Thickets of woody shrubs - such as honeysuckle and multiflora rose - develop, mixed with small trees such as red cedar, black locust and hawthorn. Birds found there include Field Sparrow, House Wren, Red-tailed Hawk, and Blue-winged Warbler.
**Mixed Deciduous / Coniferous Forest**

In a broad band stretching from the Great Lakes region eastward to New England and the Maritime Provinces of Canada, the southern deciduous woodlands and the coniferous forests of the north meet and intermingle. There broad-leafed trees such as oaks, hickories, beeches, and maples mix with conifers such as spruces, firs, and hemlocks. Birds that live there include Winter Wren, Northern Goshawk, White-throated Sparrow, and Black-throated Green Warbler.

**Sonoran Desert**

The Sonoran Desert is a hot, dry region covering 120,000 square miles in southwestern Arizona and southeastern California, as well as most of Baja California and the western half of the state of Sonora, Mexico. Tall saguaro cactus and spiny cholla cactus are common, mixed with trees such as ironwoods and palo verdes, and shrubs such as saltbush, creosote bush, and mesquite. Black-throated Sparrow, Cactus Wren, Harris's Hawk, and Lucy's Warbler can be found there.
Freshwater Marsh

A freshwater marsh is a treeless wetland whose shallow water supports dense stands of mostly emergent plants (rooted in mud but with most of their foliage above water). Marshes are found throughout North America, often forming when ponds and shallow lakes fill in, although beavers may also play an important role in their formation. Typical vegetation includes cattails, bulrushes, sedges and reeds. In deeper pools submerged and floating aquatic plants occur, including water lilies, pondweed, arrowhead, duckweed, smartweed, bladderwort, pickerel-weed, water-shield, and sweet flag. Bands of shrubs such as alder and willow occur at drier marsh edges. Swamp Sparrow, Northern Harrier, Marsh Wren, and Common Yellowthroat are typical residents.

Overall characteristics:

30 orders and 9000 species

- Fused bones in pelvis, feet, hands, and head
- Lightweight bones (bones that are either hollow or spongy/strutted)
- No teeth or maxillary bones of the jaw (reduces anterior weight)
- Endothermic
- Possess a four-chambered heart and in general exhibit high metabolic rates
- Produce large, richly provisioned external eggs
- Adept navigational abilities in many species
- Extraordinary communication and song production
- Feathers - provide insulation and enable flight; feathers are modifications of a bird's epidermis (outer skin).
- Bills - birds do not possess teeth or the heavy jawbones seen in other vertebrates; instead, birds have a pair of toothless mandibles covered with a horny sheath of keratin.
- Furcula - also known as the 'wishbone', the furcula is a bone located in the bird's chest that prevents compression of the chest cavity during the downstroke of a wingbeat.