

# Bird Migration

Twice each year, many birds, including the Scarlet Tanager, set out on an extraordinary adventure, flying between their summer breeding grounds and their winter feeding grounds. Hummingbirds weigh about 4 grams but they fly 600 miles non-stop across the Gulf of Mexico to spend the winters in Central America.



Eagles spend summers in Alaska, Canada and the northern United States and winter in marshes around Kansas City. Chimney Swifts and Broad-Winged Hawks fly to the Amazon basin for the winter months while Turkey Vultures move from Kansas City to Springfield.

Based on their migratory habits, the birds in our area can be divided into four groups:

**Residents:** non-migrating birds like Goldfinches that remain year round.

**Summer residents:** birds like Chimney Swifts that arrive in the spring, nest during the summer and return to their wintering grounds in the fall.

**Winter Residents:** birds who have 'come south' for the winter. White-throated sparrows are summer residents in Canada and winter residents in Missouri.

**Transients:** birds who nest farther north and winter farther south. We see them as they are 'passing through'.

## Why Do They Do This?

Insect-eating songbirds leave the tropics in spring and migrate north where the weather is warm, food is abundant and there is sufficient land for nesting and raising babies. The longer days in the north provide greater opportunities for breeding birds to feed their young. The extended daylight stimulates birds to produce larger clutches than related non-migratory species. In late summer, when the supply of insects diminishes, they return to their winter homes.

Geese and ducks forage in open water; once the surface freezes, their food supplies are unavailable. Eagles depend on open water for fish, but also follow the ducks and geese that are their prey. Hummingbirds eat nectar; when there are no flowers, they have no food.

### How Do They Prepare?

As days grow shorter the birds become restless. They molt, or shed worn feathers and grow new ones. At the same time, they feed more and grow fat; during most of the year, only 5% of a bird's body is fat. Fat is a birds' main source of energy during migration. Many songbirds almost double their body weight before they depart! They also increase their muscle mass.

### When Do They Fly?

Most songbirds travel at night. They spend the daylight hours resting and searching for food. They generally cover 25 miles an hour and keep below 2,000 feet. If they are lucky enough to find a tailwind, they travel faster. Raptors prefer to fly during the day, traveling over land, catching thermals to save energy (see picture at right). Swifts and swallows fly in daylight eating insects on the fly. Waterfowl fly at about 45 mph during the day and rest at night.



### How Do They Find Their Way?

Birds have excellent vision and rely on visual landmarks for local and long-distance navigation. In addition, they use three 'compasses' to find their way; the sun, the stars and Earth's magnetic field.

### Some Interesting Facts

- The Arctic Tern holds the record for the longest migration. Each spring and fall, it flies over 18,000 miles from the Antarctic to its breeding grounds in the Arctic.
- The males migrate north first. This enables them to claim territories and be ready to attract mates.
- A bird's streamlined body, lightweight skeleton, well developed pectoral muscles and feathers that act as airfoils all make the arduous migrations possible.