

pinfeathers

A play & learn page for future Payne County Audubon Chapter members

WHAT IS BIRD MIGRATION?

- ☛ Bird migration is a seasonal journey that happens twice each year.
- ☛ Some bird species migrate but not all do. Birds that migrate are called migratory birds, birds that do not migrate are called resident birds.

WHY DO BIRDS MIGRATE?

- ☛ Birds migrate in search of food. There's plenty of food in warm, sunny places where small animals, insects, berries, and seeds are plentiful. But, these food sources are nearly absent in dark, snowy locations.
- ☛ When it's winter where you live in Oklahoma (Northern Hemisphere), it is summer in South America (Southern Hemisphere). Thus migrating birds follow the sun—and the food—south in the fall to enjoy this southern summer. They return north in the spring before summer arrives again in the north. In the summer, days are longer, there is more sunshine, and more food. Also, longer summer days give birds more time to hunt for food.



David Grunfield The Times-Picayune

Migrating birds explode out of a tree in the French Quarter on Sunday, December 27, 2010. A massive wave of Arctic air pushed migrating species farther south in search of warmer temperatures.

WHAT SIGNALS BIRDS TO MIGRATE?

- ☛ Birds get their cue from nature. But it is the change in daylight hours rather than the change in weather that spurs birds to fatten up for the long flight ahead. Weather can be unpredictable, but the number of daylight hours changes in the same way each year.
- ☛ In Stillwater, migratory birds leave in the fall and return in the spring when food becomes plentiful.

WHAT TIME OF DAY DO BIRDS MIGRATE?

During the day

- ☛ Many soaring birds, such as raptors (hawks), migrate by day. They travel inland by flying and catching thermals (rising columns of warm air) that occur only over land.
- ☛ Insectivores, such as swifts and swallows, also fly during the day, feeding on insects as they fly.
- ☛ Flocking birds such as waterfowl and some finches fly during the day, too.

During the night

- ☛ Most songbirds travel at night. They spend the daylight hours resting and searching for food. It is thought that the lower night temperatures and stiller air make better flying conditions



HOW DO THEY FIND THEIR WAY?

- ☛ A flyway is a route that birds use when migrating north or south. Flyways may be along coastlines or across continents, may be routes over land so that migrating birds can visit stopovers, or may cross vast stretches of ocean,
- ☛ Birds rely on a variety of senses to find their way. Birds identify locations by sight and smell. And they navigate by the sun and stars as well as the pull of the Earth's magnetic field.
- ☛ Birds risk their lives each time they migrate. Predators and bad weather are the main risks birds face yet human development can also cause harm. When wetlands are drained and forests cut, birds lose a place to refuel en route.

HOW HIGH DO BIRDS FLY WHEN MIGRATING?

- ☛ Some geese and ducks fly at incredible heights. Bar-headed geese have been recorded as high as 29,000 feet when they migrate over the Himalayas! That's five miles above our heads, even higher than Mount Everest!
- ☛ Most night-migrating songbirds fly below 2000 feet (600 m) when flying over land. Some will fly as high as 6,500 feet (1,980 m).
- ☛ The wind sometimes causes birds to fly at certain heights. When the bird is flying into the wind (called a headwind), it flies very low. When the wind is blowing the same direction as the bird, pushing it along (called a tailwind), it will fly high, where the wind is the fastest.

HOW FAST DO BIRDS FLY?

- ☛ In still air, most songbirds fly at 20 to 30 mph.
- ☛ Waterfowl and shorebirds can fly at 30 to 50 mph. A tailwind allows the bird to fly faster

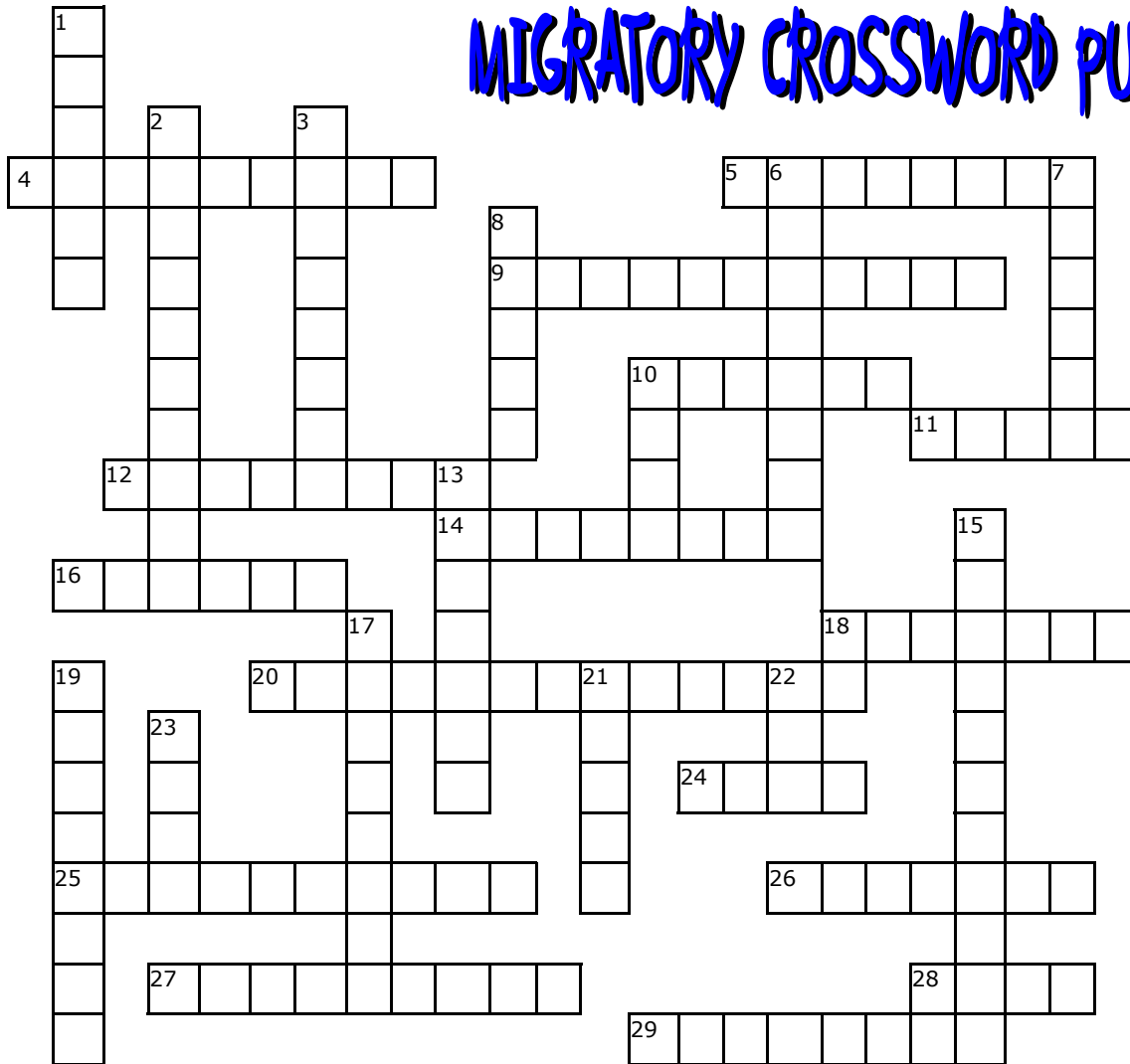
HOW FAR DO BIRDS MIGRATE?

It depends on the bird species.

- ☛ The arctic tern may hold the record for longest migration distance since it flies about 30,000 km (18,600 miles) each year traveling between its Arctic breeding ground and its non-breeding area in the Antarctic. This amazing feat is possible because terns eat fish and can feed during their long journey.
- ☛ Most songbirds don't fly to their non-breeding grounds non-stop. They stop a number of times to rest and feed during migration. The places they stop are called stopover sites, or staging areas. Depending on the weather and how much fat they have stored. Some birds stop only one day to rest and feed, and then continue their migration. Others may remain at stopover areas for weeks.
- ☛ Some birds are short-distance migrants and migrate only as far as they necessary to find food
- ☛ Some birds are austral (southern) migrants. In the tropics, they migrate north to breed, then head south at the end of the breeding season.
- ☛ Some migrating birds are altitudinal migrants, they migrate up and down in elevation but remain in the same geographical area

Check the migration facts on these two pages to be sure you understand the meaning of each underlined word. Then try the crossword puzzle on the next page. If you cannot get a clue, look back in the article. You may also go to the Smithsonian Migratory Bird Center to find more [migration fact sheets](#) and [pages you can color online \(fun!\) or print out](#) and color at home.

MIGRATORY CROSSWORD PUZZLE



ACROSS

- 4 Birds that migrate are called ___ birds
- 5 Place where birds stop to rest and feed during migration
- 9 Bird that feeds on insects
- 10 Route migratory birds follow
- 11 Birds that migrate only as far as necessary to find food: ___-distance migrants
- 12 Bird that doesn't migrate
- 14 Flying into the wind
- 16 Season for snow
- 18 Southern birds that migrate north to breed; ___ migrant
- 20 Topic of this *Pinfeathers* (2 wds)
- 24 Season of falling leaves
- 25 One of two main risks birds face when migrating (2 wds)
- 26 "Birds of a feather"
- 27 Ducks and their kin
- 28 A raptor
- 29 Red bird resident of Stillwater

DOWN

- 1 Season of new growth
- 2 Bird that holds record for longest migration (2 wds)
- 3 Warblers and other small birds that sing
- 6 Flying with the wind at one's back
- 7 Hawk, for example
- 8 Gold___; bird that winters in Stillwater
- 10 Past tense of "fly"
- 13 Rising column of warm air
- 15 Migrating up and down in altitude but staying in the same geographical area
- 17 Animal or bird that preys on and eats other animals and birds
- 18 Article
- 19 Blue bird that nests in boxes on fence posts
- 21 Short-distance migrant with a brick red breast
- 22 Snowy, Barred, Long-eared, Pygmy are some species of this bird
- 23 Reason birds migrate to warmer climes
- 28 Laugh