

2026 Lancaster County Junior Envirothon

Backyard Birds

Mallard: Drake readily identified by metallic green head and neck, yellow bill, narrow white collar, chestnut breast. Black central tail feathers curl up. Hen features mottled plumage; look for an orange bill marked with black. Mallards, a familiar and common duck, are found in city parks, suburbs, farm fields, and water bodies of various sizes. The mallard is known as a “puddle” or “dabbling” duck. This means it frequents shallow, marshy habitats, where it obtains plant and animal food on and near the water surface, feeding by dabbling with its bill in the shallows and by tipping up — hoisting its tail in the air and stretching its neck and head underwater. Like all puddle ducks, the mallard can spring directly into the air when taking off; it does not have to run across the water surface to build up speed like diving ducks do. Commonly *hybridizes* particularly with the American Black Duck. People should refrain from feeding these ducks to keep them wild and reduce the possibility of passing diseases when birds are overly concentrated.



Track:



Cooper’s Hawk: Distinguished from Sharp-shinned Hawk by longer, rounded tail, larger head. A member of the *Accipiter* family of hawks. Cooper’s hawks prey largely on songbirds, some small mammals. Often hunts near bird feeders. During the breeding season, it has a regular feeding route where it hunts for common, medium-sized birds such as Mourning doves, jays, and starlings. Will perch on telephone poles. Male Cooper’s hawks are significantly smaller than females, enough that they get confused with large female sharpshinned hawks. Cooper’s hawks tend to have a slightly crested appearance, while sharp-shinned hawks invariably look roundheaded. Adults look like large sharp-shinned hawks—red eyes, blue-gray back, and a rusty breast, except the Cooper’s have rounded tails and the sharp-shins have square-tipped tails. Named in 1828 after William Cooper, a New York naturalist. In Pennsylvania, many migrating hawks follow ridges paralleling the Allegheny Plateau, climbing high on thermals that rise along these ridges. Hawk Mountain, near Kempton in southeastern Pennsylvania, is a famous spot to observe migrating hawks.



! - Eastern Screech Owl: Common in a wide variety of habitats: woodlots, forests, swamps, orchards, parks, and suburban gardens. The species is dichromatic, i.e., exhibiting two color phases—gray and red—independent of age or sex, consistent from first plumage to old age, and frequently found in a single brood. Gray phase birds are a dappled brownish-gray; red phase individuals are chestnut-red, also dappled. Nocturnal; best located and identified by voice. Two typical calls: a series of quavering whistles, descending in pitch; and a long single trill, all on one pitch. Eats mice, insects, amphibians, and birds.



May feed in neighborhoods on insects attracted to street lamps. Found in either a gray phase or red phase feather color. Sometimes seen in daylight at rest or roosting at the entrance of a tree *cavity* or nest box. Favor roosting in woods or a nest box near water. Owl pellets are sometimes found at the base of trees where an owl makes its nest.

Bird Call: https://www.allaboutbirds.org/guide/Eastern_Screech-Owl/

Ruby-throated Hummingbird: The only breeding hummingbird east of the Mississippi River. Eats flower nectar, insects, spiders, and sap from sap-sucker-drilled holes. Visits hummingbird feeders. Do not use red-colored water in feeders; research indicates the dyes are not good for these unique birds. Ruby-throated hummingbirds are fairly common in the state, found in gardens and woodland edges. A hummingbird does not suck in nectar but rather the hummingbird's tongue acts as a liquid-trapping device that allows the hummingbird to feed on nectar very efficiently. Hummingbirds will also take sap from trees, visiting the rows of small holes, or sap wells, that yellow-bellied sapsuckers excavate in birches and maples. Up to 60 percent of an individual's diet may be insects, including mosquitoes, gnats, fruit flies, and small bees. Ruby-throats pluck spiders and their prey out of their webs, and glean aphids, small caterpillars, and insect eggs from the leaves and bark of trees. With warming climates, plentiful feeders, and late-blooming sage, more are showing up in the North, and a few have attempted to overwinter.



! - Northern Flicker: A woodpecker, the Northern Flicker with a long- flared tail. Length, 11 to 12 inches; wingspread up to 20 inches (about the size of a blue jay). Flickers, also known as yellow hammers, have brown backs, no white on the wings, a prominent black band high on the chest, and bright red on the nape of the neck. Feeds on the ground, enjoys ants, which are 45% of its diet; also catches insects in the air and eats fruits, berries, and seeds. Visits bird feeders, especially those with suet. Appears mostly brown, this flicker is known for a white patch visible from behind when it perches on a branch, and a closer look will show black spots, bars, and moon-like crescents in black shades. Underneath its wings, the feathers are bright yellow. Its feet are designed for climbing vertically on trees with two toes facing forward and two toes that



face backward. They can often be found in timbered areas where there are some snags and large trees remaining. The nest is a hole opening into a cavity, generally 6 to 15 feet up a tree, sometimes higher. The cavity takes up to two weeks to build. Flickers also will use nest boxes that are the same size as those built for screech owls or wood ducks. Flickers winter in the southern United States.

Bird Call: https://www.allaboutbirds.org/guide/Northern_Flicker/

English House Sparrow: Although named a “sparrow,” this ubiquitous bird is not related to North American sparrows but is related to Old World sparrows. The house sparrow is native to Europe and Asia, and can now be found living with humankind around the globe. This invasive species was introduced into North America between 1850 and 1886 in an attempt to control insect pests, particularly the elm spanworm caterpillar. At first, the bird was called the



“English sparrow,” because most imports were brought from England. Male house sparrows have black chin and breast patches (the amount of black varies among individuals), white cheeks, and a chestnut nape. Females are a dingy brown. It is aggressive and competes with Pennsylvania’s native cavity-nesting species of birds for nest spots. It will kill other adult birds, nestlings, and eggs of a variety of species to take over a birdhouse or cavity. Feeds on the ground and in shrubbery for insects, spiders, small fruit, weed seeds, waste grain, and crumbs. Their nests are made of straw, weeds, trash, grass, lined with feathers, placed in any natural or constructed cavity, such as a birdhouse, under eaves of a house, in signs or nooks of commercial buildings.

! - House Wren: image-

https://www.allaboutbirds.org/guide/House_Wren/id The most common wren in Pennsylvania, this bird was named because it often lives around humans’ dwellings. A house wren is five inches long and weighs a third of an ounce. Its overall color is gray brown. House wrens live in open shrubby woodlands, small woodlots, woods edges, towns, suburban backyards, and city parks. They feed on insects, spiders, millipedes, and snails. House wrens in the northern



parts of their range migrate south to spend the winter in the southern United States and Mexico. Males arrive on the breeding grounds in late April or early May. They establish territories of one-half acre or larger and advertise for females with a rich, liquid song. Males build dummy nests out of twigs in tree cavities, nest boxes, or hollow fence posts; one male may construct up to seven such nests, defending them and the space around them. Females either arrive later than the males or stay hidden in the brush until they begin inspecting the males’ territories. If a female finds a territory to her liking, she will finish one of the male’s dummy nests by adding a lining of grass, plant fibers, rootlets, feathers, and animal hair. The oldest house wren on record lived seven years, but most house wrens survive for a year or two. House wrens benefit from

forest fragmentation and do well in villages and residential areas. They have a bubbly, energetic personality with trilling songs.

Bird Call: https://www.allaboutbirds.org/guide/house_wren

American Robin: The American robin is the largest, most widespread, and common thrush of the United States. The American robin is often the first sign of spring and hops about on lawns, meadows, and golf courses looking for earthworms. It also eats insects, fruit, and berries. Occasionally comes to feeders for fruit. The use of mud make these nests very sturdy (once dried) and distinguishes robin nests from the nests of other thrushes. The cup is lined with fine grasses. Nests may be built in trees (in conifers for first broods, before deciduous trees have put forth leaves), on porch supports, windowsills, sturdy shrubs, and bridge and barn beams; sometimes robins repair and reuse their nest from the previous year. Both parents feed the young. The female lays three to seven eggs (usually four), which are colored the distinctive “robin’s egg” blue. In autumn, it migrates south often in waves of hundreds or thousands in evenly spaced flight, which is strong and direct. Some winter as far south as Guatemala. In Pennsylvania, the American robin is thought to be the most abundant bird species.



Gray catbird: All gray with a black cap. Feeds on the ground and in leaves of trees and shrubs, eating various insects, as well as spiders, wild grapes, and berries. Both male and female give the “meow” call in alarm situations. This songbird is a *neo-tropical migrant* wintering in coastal Southeast and Central America. Featuring a variety of calls, the ability comes from the structure of the syrinx, or voice box, whose two sides operate independently, letting the bird sing with two voices at the same time. The nest, substantial and deeply cupped, is placed in a dense thicket, briar patch, vine tangle, or shrubby tree, 3 to 9 feet above the ground. The female lays three to five eggs, which are a dark greenish-blue and unmarked. Brown-headed cowbirds often lay their eggs in catbird nests, but catbirds almost always recognize the parasitic eggs



(which are pale and dotted with brown) and pitch them out of the nest. Catbirds destroy eggs and nestlings of other species, including wood-pewees, robins, and sparrows; biologists don't know whether this behavior represents an attack on competitors or a feeding strategy. Parents feed their own young mainly on insects and spiders. Incubation takes two weeks, and the young leave the nest ten or eleven days after hatching.

Northern Mockingbird: White wing patches flash in the flight of the Northern mockingbird. Calls are a mixture of original and imitative phrases, each repeated several times. Both male and female mockingbirds sing, but the males are the true virtuosos. They mimic snatches of

other birds' songs, calls of crickets and frogs, dogs barking, and mechanical noises like squeaky hinges and squealing tires. A male's repertoire increases as the bird ages and may ultimately include more than 150 distinct song types. Usually, an individual repeats one sound or song three to six or more times, then switches to another song, and so on, singing for minutes on end. In the spring, male mockingbirds sing to establish territories and attract mates, starting around an hour before sunrise. They sing in flight, on the ground, from perches, when building nest foundations, during and after copulation, while foraging--even with food clutched in their bills. Unmated males may sing during the night, usually from a hidden perch. Mockingbirds sing from March to August (during the breeding season) and from late September into November (while establishing fall and winter feeding territories). Found in a variety of habitats, including towns. Makes its nest of twigs, plant stems, mosses, cloth string, and dry leaves lined with rootlets and grasses. Feeds on the ground and in trees, eating various insects, spiders, snails, crayfish, lizards, small snakes, and wild fruits and berries. May occasionally come to birdfeeders for raisins, other fruit, bread, and suet. Mockingbirds often sing at night.



European starling: All the European starlings in North America descended from 100 birds set loose, a non-native species, in New York's Central Park in the early 1890s. The birds were intentionally released by a group that wanted America to have all the birds that William Shakespeare ever mentioned in his writing. It took several tries, but eventually the population took off. Today, more than 200 million European starlings range from Alaska to Mexico, and many people consider them pests. Often, they drive native birds from their nests, including woodpeckers, nuthatches, great crested flycatchers, tree swallows, house wrens, and bluebirds. Starlings aggressively compete with native species of birds for nesting cavities. To reduce competition from starlings for birdhouses, make sure the entrance hole is 1 ½ inches or less in diameter, since this is too small for starlings to enter. Outside nesting season, they're usually seen in large flocks. *Forages* on the ground for insects, spiders, earthworms, garbage, salamanders, snails, weed seeds, and berries. Comes to feeders for seeds and suet.



Northern Cardinal: The male is bright red with black around the base of the bill with a large crest. Females are buffy below; grayish brown above, with reddish bill. Feeds by hopping around on the ground, gathering food from low shrubbery and trees. Eats insects, spiders, wild fruits and berries, weed seeds. A favorite at birdfeeders, where it prefers sunflower seed, safflower seed, and cracked corn. Builds nest in shrubs near open areas, woods, and backyards. Non-migratory, this species has extended its range northward (probably due to feeding) during the 1900's. A common call; is loud, liquid whistling with many variations, including *cheer, cheer, cheer*. Cardinals live in thickets, hedgerows, brushy fields, swamps, gardens, and towns and cities. Hawthorns, lilac, gray dogwood, and dense conifers also provide nesting cover. Mated pairs of cardinals use territories of 3 to 10 acres. Cardinals eat caterpillars, grasshoppers, beetles, bugs, ants, flies, and many other insects; fruits of dogwood, sumac, pokeberry, cherry, mulberry, and wild grape; and seeds of smartweeds and sedges, grains scattered by harvesting equipment, and sunflower seeds at bird feeders. Cardinals have become tolerant of humans. In winter, cardinals forage on a variety of wild fruits and berries as well as seeds. Many people have experiences with cardinals landing nearby. Nests are placed one foot or up to 15 feet off the ground and are often concealed in the thickest, thorniest scrub on the pair's territory. It takes the female three to nine days to build the nest, a loose cup woven out of twigs, vines, leaves, bark strips, and rootlets, lined with fine grasses or hair. The female lays two to five eggs (commonly three or four), which are whitish and marked with brown, lavender, and gray. She does most of the incubating, and the male brings her food.



! – Indicates the bird call is included in the study materials and you could be asked to identify the call at the event.