



Wildlife Note — 12  
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# Crows and Ravens

by Chuck Fergus

Crows and ravens belong to the large family Corvidae, along with more than 200 other species that includes jays, nutcrackers and magpies. Their subfamily, the Corvinae, is represented in Pennsylvania by three species: American crow, fish crow and common raven. These less-than-melodious birds, you may be surprised to learn, are classified as songbirds.

**American Crow** (*Corvus brachyrhynchos*) — Crows are some of the most conspicuous and best known of all birds. They're intelligent, wary and adapt well to human activity. As with most other wildlife species, crows are considered to have "good" points and "bad" ones — value judgements made strictly by humans. They're found in all 50 states and parts of Canada and Mexico.

## Biology

Also known as the common crow, an adult American crow weighs about 20 ounces; its body length is 15 to 18 inches and its wings span up to three feet. Both males and females are black from their beaks to the tips of their tails. Their feathers are iridescent, flashing highlights of blue, green and purple. Albinism occurs, producing pure or partial white coloration. The scientific species name, *brachyrhynchos*, means "short beak;" actually, the crow's beak is fairly large, 2½ inches long and quite sturdy, but short compared to that of the closely related raven.

Crows are found in Pennsylvania year-round. This doesn't mean the same individual birds are here all the time: Crows that breed here migrate south, starting in late September or early October, and are replaced by birds from the north. Northern migrants remain in our state over winter while crows born in Pennsylvania fly as far south as the Gulf of Mexico.

Flocks of crows range widely for food, up to 30 miles a day in winter. Foods include grasshoppers, caterpillars, grubs, worms, most insects, grain, fruit, the eggs and young of other birds, organic garbage — just about anything that they can find or overpower. Crows also feed on the carcasses of winter- and road-killed animals.

Crows have extremely keen senses of

sight and hearing. They are wary and usually post sentries while they feed. Sentry birds watch for danger, ready to alert the feeding birds with a sharp alarm *caw*. Once aloft, crows fly at 25 to 30 mph; with a strong tail wind, they can hit 60. These skillful fliers have a large repertoire of moves designed to throw off airborne predators.

Crows are relatively gregarious. Throughout most of the year, they flock in groups ranging from family units to several hundred birds. During winter, crows may gather by the tens of thousands in areas where food is plentiful. Later, these flocks break up as mate selection takes place.

Males vie for mates through fighting and spectacular flight routines. Once paired, male and female search out a secluded woodlot to raise their brood. Both sexes share nest-building and egg-incubating chores. Some naturalists believe crows mate for life.

A nest site is usually chosen away from those of other crows. Most often, nests are built in the crotch of a tree, 10 to 70 feet above ground, usually more than 25 feet. A typical crow's nest is a large, substantial basket, 22 to 26 inches across, built of twigs, sticks, bark and vines. The deep central cup is lined with moss, shredded bark, grass, deer hair, fur, feathers or similar material.

After mating, the female lays 3 to 8 eggs (usually 4 to 6) in April and May.



Eggs are oval, bluish-green, and blotched and spotted with brown and gray. The young hatch following an 18-day incubation period.

Ten days after they hatch, the young crows are almost fully feathered, and their eyes are open. They leave the nest at five weeks of age, and look like small adults. Young birds follow, imitate and learn from their parents all summer. Often the family group sticks together until the following spring.

Crows are both predators and prey. As predators, they rob nests of songbirds and waterfowl, killing and eating newly hatched young, or cracking eggs. As prey, young crows and unhatched crow eggs are eaten by raccoons, opossums and tree-climbing snakes. Hawks and owls kill fledgling and adult crows. Crows are especially vulnerable to night attacks by great horned owls.

If crows locate an owl during the day, they will mob it — swooping low, calling excitedly and attracting other crows, and generally harassing the bigger, less maneuverable bird. They also mob hawks. In turn, crows are mobbed by smaller birds, especially kingbirds and red-winged blackbirds.

Crows are curious. Shiny objects fascinate them, and they have been known to fly off with bits of glass, rings, keys, etc. Crows exhibit their intelligence by imitating a large number of sounds, including whistles, cats, machines and the human voice. Crows have a good vocabulary — a wide range of *caws*, crowing noises, *coos*, and other soft, melodious sounds they use to communicate with each other.

### Population

Crows not only live alongside man, they've survived in spite of him. Because of their habits of pulling up corn shoots and occasionally robbing game bird nests, crows have been persecuted. Today, however, humans also recognize the crow's beneficial side — in helping control harmful insects such as tent caterpillars, locusts and white grubs, in cleaning up dead road-killed birds and animals, and even our improperly disposed garbage.

Some estimates put the crow population at more than three billion in North America. Their numbers may be affected by man-made substances such as aldrin, dieldrin, heptachlor and DDT that have been introduced into the environment (All are now banned). These insecticides accumulated and are still found in natural food chains and in some bird species caused local reproductive failure or thin eggshells that break during incubation. However, it's speculative whether this is the case with crows.

Each year, many crows winter in southern Pennsylvania, where weather conditions are relatively mild and food

is abundant. Here, they may group into flocks of thousands of birds that congregate nightly at roosts — spots where crows have sometimes gathered together for decades. Each day, crows fly in different directions from the roosts, feed and return at night. Most birds usually leave and return along the same route each day.

The crow is classified by the federal government as a migratory nongame bird. It's the only bird in this classification that may be hunted. Except in Hawaii, where crows are protected, they may be hunted during established seasons which may not exceed 124 days per year. States are prohibited from establishing seasons during the peak nesting period. Individual states set season dates and regulate hunting methods, bag limits, etc., under regulations set by the U.S. Fish and Wildlife Service.

### Habitat

Crows get along in extremely varied habitat. They thrive everywhere, from the semi-arid regions of the west to the big timber land of the north. They probably prefer farmland, but are also found in parks, on wooded islands, in wooded areas on the fringes of towns and, increasingly, even in our largest cities.

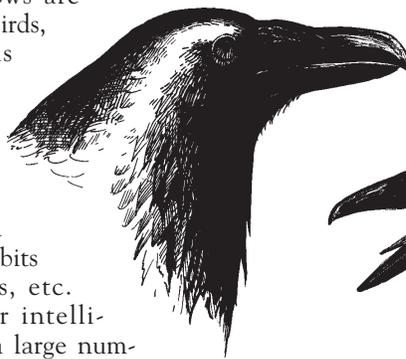
Generally, crows are most numerous in agricultural districts with a great variety and plentiful supply of food. One habitat necessity is an adequate number of trees for cover and nesting sites. Farm woodlots are ideal for this. Nests built and abandoned by crows sometimes provide habitat for birds that, ironically, are one of the crow's age-old enemies: the great horned owl.

There's plenty of suitable habitat for crows across the country today. Undoubtedly, the species will be with us indefinitely — especially since more and more people have a better understanding of crows and the beneficial services they provide.

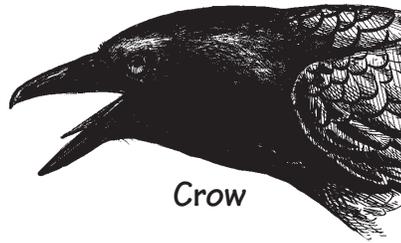
**Fish Crow** (*Corvus ossifragus*) — which means “bone breaker,” never strays too far from the Atlantic and Gulf coasts and tributary rivers. Its Pennsylvania distribution centers in the southeast and along the Susquehanna River, including the West Branch to Lock Haven and Centre County's Bald Eagle Creek (a tributary), and up the Susquehanna's North Branch to Scranton. Where it occurs, it's fairly common, but it's probably often confused with the common crow. If the two are seen together, the fish crow can be distinguished by its smaller size. Otherwise, the best identifier is its call, a short, nasal *car* or *cah-cuh*, as opposed to the distinct *caw* of the common crow. (A young common crow, however, may sound like a fish crow, so it's difficult to distinguish the two species in late spring and summer.)

As its name implies, this bird feeds on fish; however, it also eats a variety of other foods. Along the shore, it captures fish and small crabs, sometimes steals food from the smaller gulls and terns, and scavenges for whatever

Raven



Crow



it can find. Inland, the fish and common crows often feed together, frequently in agricultural fields. Other songbirds' eggs and nestlings occasionally fall prey to the fish crow.

Nest and eggs are very similar to, though a bit smaller than, those of the common crow. Like their cousins, fish crows build their nest in trees.

**Common Raven** (*Corvus corax*) — is an uncommon Pennsylvania resident found mainly in the mountainous northcentral region. Once more common, by the late 19th century it was so rare some considered it to be possibly extinct in this state. Today, the raven population is recovering and expanding into the Poconos and our south-central and southeastern counties. Ravens are abundant in Canada and the Rocky Mountains. Favored habitat is remote, heavily forested wilderness, seacoasts and wooded islands.

Ravens are 20 to 25 inches in length, with a wingspread of about four feet. Their plumage is entirely black, with green and purple iridescence. Both sexes are colored alike; males are generally larger than females.

The raven is often confused with its close relative, the crow, but there are major differences between the two species that are especially apparent when crows and ravens are seen together. Ravens are much bulkier than crows, being over twice their weight, and more hawk-like in appearance and habit. Ravens have a massive bill that equips them better for predation and scavenging. The raven's head profile with a large, bulky bill and shaggy throat are characteristic field marks. In flight, ravens also have a more elongated appear-

ance with a longer, wedge-shaped tail, proportionally longer wings, and a long head and bill. Their longer wings are even evident when ravens are standing or walking. They can be recognized by their distinctive head profile or flight silhouette alone. By contrast, crows seem to have broader wings and shorter, squared-off tails. Side by side, crows are much sleeker than the more robust ravens. Ravens are better equipped and more likely to soar than are crows, using their wedge-shaped tail to catch the wind. Ravens engage in spectacular aerial acrobatics, including flips, loops, rolls, and dives. Males will carry large sticks in flight while in courtship and nest-building.

Ravens eat rodents, insects, grain, fruit, bird eggs and refuse. They consume much carrion, especially in winter. In northern Pennsylvania, they are often seen along Interstate 80, where they feed on road-killed deer, raccoons, opossums, etc. Ravens also prey upon sick and injured animals.

A raven is every bit as alert as a crow and possesses sharp eyesight and hearing. Ravens are considered among the most intelligent of all birds; like crows, they can learn to imitate a variety of sounds, including the human voice. In nature, their calls include guttural croaks, gurgling noises, and a sharp, metallic "tock."

Ravens are skillful fliers; their courtship display flight is especially spectacular. After mating, a pair will seek out an isolated nesting spot, usually at least a mile away from any other ravens. Nests are built on cliffs or near the tops of large trees. Of 17 raven nests found in Pennsylvania, 13 were on cliffs, three were in hemlocks (45 to 80 feet up), and one was 85 feet up in a white pine.

Ravens often build a new nest on top of the previous year's nest. Nests are constructed of large sticks, twigs and grapevines. Outside diameter is 2 to 4 feet; inside diameter, one foot; depth of central hollow, six inches. The central hollow is lined with deer hair, moss, shredded bark and grass.

The female lays 3 to 6 (usually 4 to 5) oval eggs, which are greenish and covered with brown or olive markings. Eggshells are rough and dull-looking. Incubation, which is mainly by the female, lasts about three weeks. Young are altricial. They leave the nest about one month after hatching.

Ravens seem to need seclusion for successful reproduction, but they are becoming more tolerant of people. Each year, more seem to be nesting in closer proximity to civilization and entering towns in winter to feed on litter and garbage. Ravens may live as long as 35 years in the wild, but much less is normal.

# Family Tree

