



## Ring-necked Pheasant

When we import creatures to lands where they don't naturally exist, we often brew trouble. Consider the impact and spread of the rabbit in Australia, the red deer in New Zealand, and the English sparrow and starling in the United States. The ring-necked pheasant is an import, too, but unlike the species mentioned above, it hasn't become a pest. In fact, this Asian native has proven to be a fine member of North America's wildlife community. The ring-necked pheasant is the hunter's bird – imported, stocked and transferred to suitable habitat throughout the nation by wildlife departments. Today, the ring-necked pheasant benefits us all, providing in-the-field enjoyment to hunters, birdwatchers and nature lovers of all types.

The species is found throughout the United States, except in the Southeast, parts of the Southwest, and the far North. Good populations exist in farming regions of the Midwest. The ring-necked pheasant was once a common resident in Pennsylvania's agricultural areas. Now most ring-necked pheasants hunted in Pennsylvania are raised on



game farms by private individuals or the Pennsylvania Game Commission, then released for “put and take” hunting.

Pen-raised birds lack the survival skills to establish self-perpetuating populations in the wild, and therefore annual stocking is required to maintain hunting opportunity. The loss of sustainable populations of ring-necked pheasants in Pennsylvania is attributed to habitat loss, caused by multiple factors in the farmland landscape where they lived.

The ring-necked’s scientific name is *Phasianus colchicus*, and it is a member of the Phasianidae, or pheasant, family. Closely related to quails and partridges, the ring-necked pheasant belongs to the order Galliformes, which also includes turkeys, quail, grouse, ptarmigan and prairie chickens.

## Biology

An adult male weighs 2 ½ to 3 ½ pounds, an adult female weighs 2 pounds. Males are called roosters, cocks or cockbirds; females are hens. The standing height of a rooster is about 1 foot, and its length, from beak to tail tip, averages 36 inches. Hens are slightly smaller. A pheasant is long-legged and rangy through the body, with a long, pointed tail (20 to 23 inches) and short, rounded wings.

A hen’s plumage is a subtle, camouflaging mixture of brown, black, and gray. In contrast, a rooster’s feathers are a beautiful mix of reds, browns, golds and black. A rooster has scarlet cheek patches, a white neck ring usually interrupted in the front, an iridescent greenish-black head, golden-brown breast, and a greenish-gray or bluish rump and lower back. Tail feathers of both sexes are brown with black bars.

The crowing of a rooster is distinctive: A loud double squawk followed by rapid muffled wingbeats that might or might not be audible, depending on distance. Males crow most often during mating season, especially at sunrise and sunset; they might also emit a loud cackle when flushed into flight. Hens are normally silent.

Pheasants eat weed seeds (ragweed, smartweed, foxtails, etc.), grains (corn, wheat, barley, oats, beans and buckwheat), fruits and berries (raspberries, dewberries, strawberries, thornapples and barberry), shoots, leaves, grasses, rose hips and insects. They find a lot of their food by scratching through ground litter.

Like most birds, pheasants have sharp senses of hearing and sight. Extremely wary in autumn, they stick to dense cover when hunted heavily. During spring and summer they can be seen strutting across freshly mowed fields and along roadsides. When pursued, pheasants would rather run than fly, dodging nimbly into heavy cover — brambles, honeysuckle or multiflora rose. When cornered or surprised, they take to the air. Strong fliers over short distances, they attain a maximum speed of 45 mph in the open. Outside of breeding season (when roosters stake out individual territories) and brood-raising periods, pheasants are relatively gregarious, roosting in groups. In Pennsylvania, pheasants often roost in

trees. The average pheasant ranges within 1 square mile.

Roosters claim individual breeding territories each spring. A rooster’s courtship display includes spreading his tail and wings and strutting; his red cheek patches are swollen, his head is held low, and his neck feathers are ruffled. With luck and persistence, he will collect a harem of hens. Breeding begins in late March or early April and might extend into August. The male does not help incubate eggs.

Nesting occurs from April to August. A hen selects a nest site on the ground in a hayfield, a weedy field, an overgrown pasture or a brushy fencerow. A natural hollow (or one scraped out by the hen) is lined with weeds, grasses and leaves. Surrounding vegetation helps conceal both the nest and the laying or brooding bird.

The female lays six to 15 eggs (an average of 10 to 12) over a two-week period. Eggs measure about 1 ½ by 1 ¾ inches and are light tan to pale olive green in color. Incubation is usually postponed until the last egg is laid, so all eggs receive equal incubation time and hatch on the same day. If eggs are destroyed by farm operations, predators, fires, or floods, hens might renege, with some even making up to three attempts.

The eggs hatch after 23 or 24 days of incubation. Most clutches hatch by early July. Like the young of other gallinaceous species, pheasant chicks are precocial — covered with down, their eyes open and able to run about and eat as soon as their down dries.

Chicks depend on the hen to shelter them from cold and rain. She does this by brooding, or sitting on top of them. Hens brood at night until young are able to roost in trees. Instinctively, chicks squat and remain motionless at a signal given by the hen; their coloration, tan with darker brown streaking, conceals them well. Foxes, raccoons, crows, weasels, house cats, dogs and hawks prey on the young.

The hen guides her chicks in food-finding. Insects, plentiful and high in protein, are a good early food. By 2 weeks of age, chicks can fly short distances; after 6 weeks, their adult plumage starts to come in; and by autumn, birds of the year look like adults. Young roosters can be told from older males by the length and hardness of their spurs, appendages growing out from the backs of their legs. In young birds, the spurs are relatively soft, blunt, and short (a quarter-inch or less). Older roosters have hard, sharp spurs up to an inch in length from spur tip to the front of the leg.

In winter, pheasants form flocks. During inclement weather, they stick to thick protective cover of conifers, brushy sloughs or forests overgrown with vegetation. While not commonly occurring, the following diseases afflict pheasants: coccidiosis, blackhead and pullorum. Flukes, tapeworms and roundworms parasitize some individuals. In sustainable wild pheasant populations, annual hen survival is 30 to 40 percent. Studies in Pennsylvania have determined that the annual removal rate for roosters can be as high as 90 percent without hurting the population.

## Habitat

Prime pheasant habitat is farmland with a regular occurrence of undisturbed grass fields during the nesting season; blackberry, sumac and honeysuckle patches; swamp edges and marshy depressions grown up in cattails, grass and sedge; and overgrown drainage ditches. Clean-farming practices, where every bit of ground is put into production, can reduce the diversity of food and cover pheasants prefer.

Winter food and cover are important to local pheasant populations. Good foods are thornapples, apples, rose hips, skunk cabbage, ragweed, burdock, grapes, grasses, and green vegetation; these, along with grain (especially waste corn left by mechanical harvesters) help birds overwinter. Pheasants locate food in areas melted or blown free of snow, or by scratching. Pines provide excellent cover for roosting and daytime resting. Pheasants also seek out densely vegetated marsh or creek-side areas during bitter weather. Farm fields planted in native grasses – such as switchgrass, which stays thick and upright in winter – also are used by pheasants for

winter cover. Given adequate food and protective cover, pheasants can pull through rough winters. They are hardy birds and, like all wildlife, have keen survival instincts.

Where the overall landscape is suitable, individual farms can be managed to produce more pheasants. Strips of corn may be left unharvested (five to 10 rows next to cover are adequate); unpicked soybeans make good summer, fall, and winter cover, and the beans are eaten from fall to spring. To reduce nesting losses, farmers can delay their first hay cutting until the end of June. Forest edges can be cut to increase low, brushy growth, which makes good cover. Native shrub and pine plantings also improve cover. However, applying these techniques on a small scale will not increase the pheasant population if surrounding landscapes are inhospitable. Thousands of acres of safe nesting cover, combined with brood-rearing cover, food and winter cover, all in close proximity to one another, are needed to support a population of wild pheasants.



**Hen ring-necked pheasant with chicks**

## Population

The first successful pheasant introduction to North America was a release of about 30 birds in Oregon's Willamette Valley in 1881. Many of America's ring-necked pheasants have descended from those 30, hybridizing with other imported strains. The Pennsylvania Game Commission began stocking pheasants in 1915.

Since Pennsylvania's ring-necked pheasant population peaked in the early 1970s, the annual pheasant harvest has declined from 1.3 million to about 110,000 birds. During its heyday, wild pheasants numbered in the millions and accounted for a majority of the harvest. As the '70s progressed, however, the pheasant population declined and, today, pheasant hunting is largely sustained by stocked birds.

Wildlife managers have long contended that habitat loss and land-use changes have caused the ring-necked's plunge. In recent years, thousands of farmland acres have been lost to industrial complexes, shopping malls, suburban developments and urban sprawl. On areas still being farmed, smaller fields have been consolidated into bigger ones to accommodate larger farm equipment, causing a loss of fencerows and other areas where pheasants once found food and shelter. Changing farming practices also include an increased use of pesticides and herbicides, which kill the insects and weedy cover vital to pheasants.

Nowadays hay is mowed earlier and more frequently, giving hens little or no time to raise a brood. Fencerows and windbreaks have vanished. Even cornfields, always a popular hangout for pheasants, are chopped into silage leaving little cover for wildlife.

In the '70s, pheasant chicks, for the first few weeks of life, could find all the food and cover they required without leaving the hayfield they were hatched in. Now, if a hen is able to hatch her brood before the hay is cut, she and her young usually must range farther to obtain adequate food and cover, greatly increasing their exposure to predators, cars and other dangers.

History demonstrates a strong link between the existence of wild pheasant populations and the availability of U.S. Department of Agriculture conservation programs – which help farmers and rural landowners return some of the missing habitat components needed by pheasants in farmland landscapes, such as grass fields that will not be mowed during the nesting season, and winter cover including switchgrass fields and stream buffers. Where sufficient acreages have been established to meet minimum habitat conditions for pheasants, the Pennsylvania Game Commission has partnered with Pheasants Forever, a leading wildlife habitat conservation group, to attempt restoration of wild pheasant populations. Propagation programs and wild pheasant efforts both require significant commitments of resources, but they provide important benefits to pheasant hunters and other wildlife enthusiasts.



**Male ring-necked pheasant**