

# RING NECKED PHEASANT - PHASIANUS COLCHIUS

**Taxonomy:** Kingdom: Animalia Phylum: Chordata Class: Aves Order: Galliformes Family: Phasianidae Genus: Phasianus  
Species: P. colchicus

## **Habitat:**

**Biomes:** Look for Ring-necked pheasants on agricultural land and old fields—especially fields that are interspersed with grass ditches, hedges, marshes, woodland borders, and brushy groves. These birds also occur in an impressive range of habitats: in Hawaii, for example, they can be found from sea level to a 11,000 feet elevation. They can live in forests, grasslands, and deserts. Despite this versatility, Ring-necked Pheasants do gravitate to particular kinds of habitat for specific activities. Typically, they roost in trees or dense shrubs in spring and summer and in forested wetlands, farm fields and weedy areas in fall. For early season nesting, they seek cover along grassy roadsides, fence lines, ditches, and wetlands. As the season progresses and vegetation grows taller and denser, they shift their nesting activity to fields of hay, particularly alfalfa.

**Flight Ceiling:** Their flight speed is only 43–61 km/h (27–38 mph) when cruising but when chased they can fly up to 90 km/h (56 mph). Can fly in the air 2,500 feet and can be found from sea level to a 11,000 feet elevation.

## **Distribution:**

**In US:** From s. British Columbia (including Vancouver I.), central Alberta, s. Saskatchewan, sw. Manitoba, central Minnesota, central Wisconsin, central Lower Peninsula of Michigan, s. Ontario, sw. Quebec, s. New Brunswick, Prince Edward I., and Nova Scotia south, at least locally, to southern interior California, n. Baja California, s. Nevada, Utah, s. New Mexico, n. and coastal se. Texas, nw. Oklahoma, Kansas, n. and se. Missouri, s.-central Illinois, s. Indiana, s. Ohio, Pennsylvania, n. Maryland, central Virginia, and Outer Banks of N. Carolina

**In Other Countries:** Extends from eastern shore of Black Sea to Caspian Sea, and along southern shores of Caspian Sea east to northern slopes of Himalayas, north into Manchuria and Korea, and south to borders of Vietnam; also native to Taiwan and Japanese Archipelago

**Holistic Description:** Ring-necked Pheasants stride across open fields and weedy roadsides in the U.S. and southern Canada. Males sport iridescent copper-and-gold plumage, a red face, and a crisp white collar; their rooster-like crowing can be heard from up to a mile away. The brown females blend in with their field habitat. Introduced to the U.S. from Asia in the 1880s, pheasants quickly became one of North America's most popular upland game birds. Watch for them along roads or bursting into flight from brushy cover.

**Species Richness:** There are about 30 subspecies in five (sometimes six) groups. These can be identified according to the male plumage, namely presence or absence of a white neck-ring and the color of the uppertail (rump) and wing coverts. As noted above, introduced population in our time mix the alleles of various races in various amounts, differing according to the original stock used for introductions and what natural selection according to climate and habitat has made of that.

**Population Dynamic:** NONE

## **Evolution and Systematics:**

**Evolution:** Early-Pleistocene record in Zhoukoudian Zhen, China (Tyrberg 1998). Middle- and late-Pleistocene records in France, Japan, Georgia, Russia, Bosnia-Herzegovina, Germany, Croatia, Ireland, Israel, Italy, Kazakhstan, Serbia, United Kingdom, and Ukraine (Tyrberg 1998). However, many late-Pleistocene records may be the result of displaced subrecent bones or faulty identification

**Systematics:** English name in much of Old World literature is simply Pheasant. Up to 3 species may be recognized within Ring-necked Pheasant: P. versicolor Vieillot, 1825 (Japanese or Green Pheasant) and P. colchicus Linnaeus, 1758 (Ring-necked or Common Pheasant), which itself may be divided into 2 species, with the Asiatic complex of races under the name P. torquatus Gmelin, 1789 (Ring-necked Pheasant) separate from the more western P. colchicus (Common or English Pheasant)

**Number of Species:** COMPARE SYSTEMATICS AND SPECIES RICHNESS.

**Number of Genera:** COMPARE SYSTEMATICS AND SPECIES RICHNESS.

## **Physical Characteristics:**

**Size and Length:** Length: 19.7-27.6 in (50-70 cm) Weight: 17.6-105.8 oz (500-3000 g)

**Wingspan:** 22.1-33.9 in (56-86 cm)

**Coloration:** Male Ring-necked Pheasants are gaudy birds with red faces and an iridescent green neck with a bold white ring. The male's very long tail is coppery with thin, black bars. Females are brown with paler scaling on the upperparts; buff or cinnamon underparts with black spotting on the sides; and thin, black bars on their tails.

General Body Features: Large, long-tailed and long-necked game bird. Males are gaudy with green head, white collar, and coppery body plumage with black and white spots. Females are brown overall marked with black, particularly on the back and wings.

Special Features of the Body: NONE

Special Features of the Head and Sensory Organs: NONE

Dentition: BEAK adapted for eating DIET AND NUTRITION

Special Features of the Limbs and Digits: Pheasants use their ability to move to avoid predation, seek shelter, and scrounge the ground for food. The ring-necked pheasant spends most of its time on the ground, scratching for food with its feet or beak. The ring-necked pheasant has short, fat wings which allow them to use a lot of upward thrust to pull themselves off the ground quickly. In addition, the specialized wings also aid in steering the pheasant efficiently around obstacles.

Any Special Internal Anatomy: As with any species, reproductive success is mandatory in order to keep beneficial traits, therefore, pheasant males (cocks) compete with each other in order to win over a certain territory where females are present. To establish a breeding territory, cocks compete by flying at each other, wing-flapping, biting and kicking at each other

Sexual Dimorphisms: COLORATION

Differences Between Juvenile Stage and Adult: Juvenile birds have the appearance of the female with a shorter tail until young males begin to grow characteristic bright feathers on the breast, head and back at about 10 weeks after hatching.

### **Behavior:**

Diurnal, Nocturnal, or Crepuscular: Diurnal

Activity: Spends warmest part of day resting in shady areas, where preening, dust-bathing, and sleeping may occur. Usually forages again near evening; also may visit sources of grit. Evening foraging may continue until almost dark, when birds move to roost sites. Nocturnal behavior not well studied, but assumed to be mostly sleeping. Daily budget also influenced by season and weather

AND

Male Ring-necked Pheasants establish breeding territories in early spring. A male maintains sovereignty over his acreage by crowing and calling; he approaches intruders with head and tail erect, and may tear up grass that he then tosses. Competitors sometimes resort to physical combat. After a series of escalating threat displays, fighting cocks flutter upward, breast to breast, and bite at each other's wattles. They may take turns leaping at each other with bill, claws, and spurs deployed. Usually the challenger runs away before long, and these fights are rarely fatal. Females assemble in breeding groups focused on a single male and his territory. The cock courts the hen with a variety of displays—strutting or running; spreading his tail and the wing closest to her while erecting the red wattles around his eyes and the feather-tufts behind his ears. He also “tidbits”—poses with head low while calling her to a morsel of food. A female may flee at first, leading the male on a chase punctuated by courtship displays. Males guard their groups of females from the advances of other males. Like many birds, Ring-necked Pheasants take frequent dust baths, raking their bills and scratching at the ground, shaking their wings to sweep dust and sand into their feathers, lying on their sides and rubbing their heads. Dust-bathing probably removes oil, dirt, parasites, dead skin cells, old feathers, and the sheaths of new feathers.

Locomotion: Behaviors not well described. Spends most time on the ground; thus, has strong and powerful legs (Delacour 1977). Strutting, dignified gait with frequent stops to look and listen (Beebe 1936). However, capable of running far and fast. Often prefers to run into cover rather than flushing when alarmed. When walking, distance between tracks usually 10–13 cm, but stride of 18–20 cm not uncommon (Bent 1963). Often cocks tail up at 45° when running, but generally holds it horizontally while feeding (Bent 1963). Perches in trees and shrubs; leaps or flies to roosting branch from the ground (Beebe 1936). Reaches higher roosting perches usually by stepwise series of upward flutters. Short, rounded wings with fast, powerful wing beat enable quick escape. Able to flush nearly vertically, and can attain flight speed of 61 km/h. May flap wings to help propel itself across water surface

Degree of Sociality: Females gregarious. Adult males solitary during breeding season, but often in small groups ( $\leq 10$ ) during non breeding season; some-times with several females. Females more sociable, and may form groups of up to 30 individuals during winter.

Level of Aggression: Little or no aggression in all-male groups before breeding season (Taber 1949), but young males may be aggressive and fight with each other in fall (Millais 1909). Most aggressive encounters occur during breeding season, especially during territory establishment. Escalating series of threat displays (see below) may culminate in physical interaction if one bird does not flee. Fights involve fluttering up together, breast to breast, biting at each other's wattles, or making alternate high leaps forward at opponent, using bill, claws, and spurs (Cramp and Simmons 1980a). Fatalities rare; one bird usually withdraws at early stage; victor usually chases loser away after combat, running with head low.

**Migration:** Relatively sedentary, but individuals may show seasonal movements between geographic areas or habitats in response to changes in weather and food availability. In w. Texas, movement from summer to fall-winter habitats often is the result of changes in cover conditions, especially harvest of crop fields

**Predators:**

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Nests: Rod fox, domestic dog, coyote, badger, mink, weasel, striped skunk, raccoon, domestic cat, opossum, groundhog, ground squirrel, Norway rat, fox squirrel, American crow, common raven, black-billed magpie, blue jay, common grackle, fox snake, and bull snake.

Adults and Young: Red fox, gray fox, domestic dog, coyote, badger, mink, weasel, striped skunk, raccoon, domestic cat, Norway rat, opossum, Great Horned Owl, Red-tailed Hawk, Red-shouldered Hawk, Rough-legged Hawk, Cooper's Hawk, Northern Goshawk, Peregrine Falcon, Northern Harrier, fox snake, and snapping turtle.

**Anti-Predator Defenses:** Usually retreats into cover and hides, but also flies, crouches, and runs. Response probably varies depending on species, closeness, and activity of predator. Hen may sometimes give broken-wing display when with chicks, or may challenge small raptors until brood is in cover. Vocal responses may include Alarm Call by males and Distress and Brood-Caution calls by females.

**Diet and Nutrition:**

**Adult Diet:** In fall and winter, Ring-necked Pheasants eat seeds—especially grain from farm fields—as well as grasses, leaves, roots, wild fruits and nuts, and insects. Their spring and summer diet is similar, but with a greater emphasis on animal prey and fresh greenery. They eat insects such as grasshoppers, beetles, caterpillars, crickets, and ants, as well as snails and earthworms. Ring-necked Pheasants forage in grasslands, hayfields, woodland edges, and brushy areas. They sometimes pick waste grain from cow manure in pastures. Pheasants take most of their food from the ground, scratching or digging with their bills. They can retrieve roots or seeds from as deep as three inches below the soil surface. They also sometimes forage in shrubs or trees for fruit, leaves, and buds.

**Juvenile Diet:** ^^^

**Special Adaptations for Getting Prey:** Takes food primarily on ground, by scratching or digging with bill; can reach roots or seeds at depth of 8 cm.

**Reproduction:**

**Mode of Reproduction:** Polygamy

**Mating System:** Mating system called female- or harem-defense polygyny, in which males control access to females directly by virtue of female gregariousness. Females form groups (harems) that are attracted to certain male territories or males. Males defend and guard harems (see below). Harem members usually are from same winter group

**Mating Season:** Late-March to Mid-May

**Courtship:**

(1) Ritual Approach: Territorial male walks directly toward females with head held high and pinnae erect; often precedes Lateral Display (see below).

(2) Lateral Display: Male approaches female and crosses slowly in front of her, spreading tail and wing closest to her. Holds head low, and wattles and pinnae erect. This display is closely related to Lateral Strut Display (see Agonistic behavior, above) and Renewed Lateral Display (see below), but more intense. Male sometimes performs Lateral Display while running up to and past female (Running Lateral Display).

(3) Tidbitting: Ritualistic courtship-feeding behavior. Male holds head low, still, and partly to one side while calling female to morsel of food (see also description of Crowing Call in Sounds: vocalizations, above).

**Territoriality:** Males establish breeding or crowing territories in early spring—e.g., late Mar or early Apr in Wisconsin (Gates and Hale 1974). Adult males usually reestablish previous territories, whereas 1-yr-old males fill vacancies (Grahm et al. 1993). Territories are established and maintained by Crowing Call (see Sounds: vocalizations, above), threat displays, and physical interactions (see Agonistic behavior, above). Males that establish territories and begin early crowing are generally higher in the dominance order than those that do not (Collias and Taber 1951). In general, territorial males are dominant over others when on their own territories, even if intruding male had higher winter rank

**Mating:** Copulation usually is preceded by persistent Lateral Display or Tidbitting, at least early in season, but later the male may simply chase the female and attempt to forcibly mount her (Johnsgard 1999). Female may solicit copulation by squatting in front of male. Renewed Lateral Display (similar to Lateral Display but male's air sacs inflated, emits loud hissing sound either during or at end of display, and produces low clapping sound by vibrating tail feathers) may occur following copulation.

**Nesting:** The female Ring-necked Pheasant chooses her nest site, which is usually less than half a mile from her wintering range. Nests are usually surrounded by tall vegetation and built on the ground, often in a natural depression or a hollow that the female scoops out herself, about a third of an inch to 3 inches deep. The Ring-necked Pheasant's nest is a rudimentary affair—unlined or sparsely lined with vegetation taken from beside the nest depression. Females gather grasses, leaves, weed stalks, fine twigs, corn husks, and/or a few feathers from their own breast with which to line the nest. The average nest bowl is about 7 inches across and 2.8 inches deep.

**Egg-Laying:** Clutch Size: 7-15 eggs Number of Broods: 1-2 broods Egg Length: 1.6-1.9 in (4.1-4.9 cm) Egg Width: 1.3-1.5 in (3.3-3.8 cm) Incubation Period: 23-28 days Egg Description: Olive-brown to blue-gray.

**Hatching and Incubation/Gestation:** Pheasant chicks hatch completely covered with down, eyes open. They leave the nest immediately, following the female and feeding for themselves.

**Development:** NONE

**Parental Care:** Only females attend broods, but males may accompany broods in rare cases. Hen leads brood to feeding sites, but chicks can feed themselves.

**Lifespan:** Less than one year, the average pheasant does not usually die of old age.

### **Conservation:**

**Official Federal Status:** Least Concern

**Special Statuses in Individual States:** NONE

**Threats:** Ring-necked Pheasants are common within their range, although their numbers have declined since a peak in the mid-twentieth century. The North American Breeding Bird Survey noted that despite increases in some areas, overall there has been a population decline of about 32% between 1966 and 2014. Partners in Flight estimates the global breeding population at about 50 million, with about 30% of them in North America (29% in the U.S., 1% in Canada). The species scores an 8 out of 20 on the Continental Concern Score. Ring-necked Pheasants is not on the 2014 State of the Birds Watch List. These pheasants are popular game birds, and in some places game managers stock pheasants on land. Hunters kill large numbers of male pheasants—sometimes several million in a single season—but the overall effect of hunting is probably not great, owing in part to the tendency for many female pheasants to mate with a single male. Auto accidents kill huge numbers of pheasants, and farm machinery also poses a threat. Contemporary farming practices have degraded most prime pheasant habitats in the U.S.—by replacing small, diversified farms with large monocultures; eliminating edge habitat; draining wetlands; burning, spraying weeds, and mowing roadsides; applying chemical fertilizers and herbicides; overgrazing; and moving up hay-mowing dates, which can destroy late nests. Management strategies include providing nesting cover, reducing nest losses, and providing adequate winter cover. The Conservation Reserve Program, funded by the Farm Bill, has helped conserve and restore habitat for Ring-necked Pheasants.

**Conservation Efforts:** ^^^^

### **Extra Facts:**

Pheasants, along with most members of the grouse family, have specialized, powerful breast muscles—the “white meat” that you find on a chicken. These muscles deliver bursts of power that allow the birds to escape trouble in a hurry, flushing nearly vertically into the air and reaching speeds of nearly 40 miles per hour.

While the birds normally don't cover more than about 600 feet at a time, strong winds can extend their flights considerably. Observers in 1941 reported seeing a pheasant fly a record four miles while crossing a body of water.

Male Ring-necked Pheasants may harass other ground-nesting birds, such as the Gray Partridge and the Greater Prairie-Chicken. Female pheasants sometimes lay their own eggs in these birds' nests. This may explain why some male pheasants have been seen chasing away male prairie-chickens and courting females—the pheasants may have been raised in prairie-chicken nests and imprinted on the wrong species.

Ring-necked Pheasants sometimes cope with extreme cold by simply remaining dormant for days at a time.

Pheasants practice "harem-defense polygyny" where one male keeps other males away from a small group of females during the breeding season.

### **Notable Species:**

Subspecies	Range	Description
P. c. colchicus group (Caucasus pheasants)	Caucasus to W Turkestan	No neck ring. Wing coverts buff to brown, uppertail coverts rusty to chestnut

P. c. chrysomelas/principalis group (White-winged pheasants)	Central Turkestan	No or vestigial neck ring. Wing coverts white, uppertail coverts and general plumage hue bronze to brown
P. c. mongolicus group (Mongolian ring-necked pheasants)	NE Turkestan and adjacent Mongolia	Broad neck ring. Wing coverts white, uppertail coverts hue rusty to chestnut, general plumage hue copper
P. c. tarimensis group (Tarim pheasants)	SE Turkestan around the Tarim Basin	No or vestigial neck ring. Wing coverts buff to brown, uppertail coverts dark khaki to light olive
P. c. torquatus group (Chinese ring-necked pheasants)	Throughout China but widespread in the east, extending to northernmost Vietnam and Taiwan in the south and to the Strait of Tartary region in the north. Most pheasants in North America are of this group.	Usually broad neck ring. Wing coverts tan to light grey (almost white in some), uppertail coverts grey to powder blue with orange tips. Top of head light grey
P. c. karpowi (Korean ring-necked pheasant)	Central and southern Korean Peninsula and Jeju island in S.Korea	
P. c. pallasii (Manchurian ring-necked pheasant)	Northern part (alpine region) of Korean peninsula to northeastern China (Manchu)	