

Gray Partridge (*Perdix perdix*)



Description

Gray partridge are larger than bobwhite quail, with adults weighing from three-fourths of a pound to almost a pound. The birds have a light brown or buff patch on the throat and their backs are brown with bars of gray, black, light brown or buff. Their bellies are gray. The outer tail feathers are a brownish orange. Males have a dark brown horseshoe-shaped marking on their lower midbreast, but this pattern may be indistinct or missing on females. The males sport a bare spot behind the eye that is a dark pink or red. In general, the birds are short, with broad wings and stubby, square tails.

Distribution & Abundance

The gray partridge is not native to the United States. Also called the Hungarian partridge or just "Hun", the bird was first imported to this country from Europe in the late 18th century in an attempt to establish it as a game bird.

In North America the gray partridge is now found mainly in the Northern Great Plains, the Lake States, and in the Pacific Northwest. Gray partridge are adapted for the cold, dry climate of the northern plains of the U. S. and southern Canada. In Illinois, the partridge occurs only in the northern counties. Illinois is at the southern border of the North American partridge range.

Some researchers believe that heat and humidity during the nesting and brood rearing season keep the partridge from extending its range farther south.

Habitat

Gray partridge, like ring-necked pheasants, are hardy birds of open country. Suitable habitat must include some undisturbed grassy or weedy areas where hens can nest successfully. Some types of herbaceous cover, such as hay fields, grass borders, or fields of small grains are needed to provide protection until the young can fly.

Habits

Few Gray partridge roam more than one-half mile. Therefore, food, shelter, water and nesting cover must be found close together to support a covey.

Many animals prey on adult birds, chicks and nests, but do not seem to be a serious threat to partridge numbers. Gray partridge are usually capable of escaping avian predators unless they are weakened by disease, starvation, or parasites.

Excessive rain during the brood rearing period can kill many partridge chicks.

Gray partridge are particularly prone to mortality

from farming operations. Mowing hayfields and pastures during the nesting season can destroy many nests and nesting hens. If the hen escapes, she must re-nest, and the possibility of rearing young to maturity is much less. Grazing animals can also cause nest destruction or abandonment.

Foods

In the spring, partridge eat the green leaves of grasses and hay crops, along with waste grains and weed seeds. As the season progresses, they consume insects to a greater extent, but still eat some grains and seeds. Partridge supplement their diet with various fruits as they ripen during the summer. As fall approaches, the partridge turns to a more complete diet of grain. This food, more than any other, prepares the birds to withstand the harsh winters of their range. The gray partridge can survive without drinking water other than that obtained from foods and dew.

Reproduction

Egg laying usually begins in late April. The nest location is often in fence rows or roadsides in bluegrass or prairie grasses or in hay or small grain fields. Eggs are laid at a rate of about 2 every 3 days until the clutch is completed in mid-May. The average number laid is about 16, but may vary from 5 to 25. If the first nest is destroyed, the hen tries again, but lays fewer eggs. The eggs are olive color, varying in shade from almost white to a dark olive. The incubation period is 24 days. The peak of hatching is early to mid-June in the southern part of the range and about a week later farther north.

Gray partridge tend to nest near field edges. About half of field nests are located within 24 feet of the margin and 70 percent are within 49 feet. In large hay or grain fields, delaying cutting of the outermost part until last, can give many birds the extra day or two that they need to finish incubation.

Maintaining unburned fence rows and controlling grazing also helps to prevent losses. The nesting loss of partridge is very high, varying from 60 to

70 percent. The major cause of nest destruction is usually farming operations.

Conservation

Considerably less is known about the habitat requirements of gray partridge than is known about those of bobwhite quail and ring-necked pheasants. In general, most management practices benefitting pheasants are considered good for partridge. However, they are smaller birds than the pheasant, and prefer cover that is less dense. Bluegrass is more attractive for partridge nesting than other, heavier cool season grasses. Clumpy native prairie grasses are preferred to dense tame hay. Strip cover made up of these grasses mixed with small grain and row crop fields is important. Delaying mowing of roadsides and idle grassland areas until August is critical to the survival of partridge hens and chicks. Partridge habitat management also benefits the dickcissel, eastern meadowlark, redwing blackbird, brown thrasher, mallard, sedge wren, vesper sparrow, grasshopper sparrow, song sparrow, American kestrel, northern bobwhite, ring-necked pheasant, and eastern cottontail.

Gray partridge are superbly adapted for surviving harsh winter weather in open country. Despite their smaller size, partridge rarely succumb to the blizzards that occasionally cause significant pheasant mortality. Although partridge presumably eat grain sorghum (milo) and corn from winter food and cover plots during long periods of snow cover, they normally forage in parts of grain fields that have blown free of snow. Partridge apparently find enough waste grain in untilled and chisel plowed crop fields, so supplemental food plots are necessary only when such fields are absent.

Since its introduction in Illinois the gray partridge has extended its range to include most of the northern quarter of the state. Self maintaining populations are extremely rare or absent south and east of the Illinois River.

The gray partridge is a unique gamebird in

several respects. It rarely reaches a population of more than 1 covey or 20 birds per square mile.

Second, the entire partridge range lies within the pheasant range. Because the two species have similar habitat requirements, they may compete in subtle ways for some resources.

DNR's Division of Wildlife Resources offers technical assistance to landowners who are interested in establishing wildlife habitat on their properties. Call 217/782-6384 for the name of a District Wildlife Habitat Biologist in your area.

Local Pheasants Forever and Quail Unlimited chapters will assist landowners with wildlife habitat management. To learn more about Pheasants Forever, request habitat management assistance, or join a chapter, call 217/446-2958, or visit <http://www.pheasantsforever.org/>. To find out about Quail Unlimited, request

assistance, or join a chapter call 812/536-2272, or visit <http://www.qu.org/>.

USDA's Natural Resource Conservation Service and local Soil and Water Conservation Districts offer assistance to landowners with planning and establishing filter strips and riparian buffers. Vegetative buffers provide habitat for gray partridge and other wildlife. There is a SWCD office in nearly every county.

Private non-profit organizations can apply for grants from the Illinois Wildlife Habitat Fund for habitat projects that benefit wildlife populations. Contact the Division of Wildlife Resources at 217/782-6384 for an application.

Selected References

Game Birds of North America by L. L. Rue III. *Outdoor Life Book*. Harper and Row, New York. 1973. ISBN: 0-06-013714-2

North American Game Birds by P. A. Johnsgard. University of Nebraska Press, Lincoln and London. 1975. ISBN 0-8032-5811-9

The Birds of Illinois by H. D. Bohlen. Illustrated by W. Zimmerman. Indiana University Press, Bloomington and Indianapolis. 1989. ISBN 0-253-31560-3

<http://www.fsa.usda.gov> (agricultural conservation programs)

<http://dnr.state.il.us/prairie/table.htm> (prairie establishment and landscaping)

<http://www.ednet.ns.ca/educ/museum/mnh/nature/nsbirds/bns0102.htm> (gray partridge biology)

http://www.dnr.state.mn.us/fish_and_wildlife/roadsides/roadwild.html (roadside wildlife)

<http://www.antigonews.com/outdoors/wildlife/gpar.stm> (gray partridge management)

Wildlife Conservation in Illinois - Ten Ways to Make a Difference

- Hunters and trappers contribute millions of dollars toward habitat conservation. Areas purchased or managed with these funds provide homes for hundreds of species. Even if you don't hunt or trap, you can join in by purchasing a **Habitat Stamp** (\$5.50) or **State Migratory Waterfowl Stamp** (\$10.50) at the sporting goods section of most discount stores. Sporting a "Sporting Series" license plate on your car or truck is another way to support habitat conservation. For information, contact the Secretary of State at 1-800-252-8980 or visit <http://www.sos.state.il.us> and select the "Online Facility".
- Turn your backyard into a more friendly place for wildlife. For tips on how to put out the welcome mat, order "**Backyard Conservation**" by dialing 1-888-LANDCARE or visiting the website at <http://www.nhq.usda.gov/CCS/Backyard.htm>.
- Hundreds of laws help protect wildlife and their habitat. You can assist your local Conservation Police Officer in keeping an eye out for poaching, pollution and other threats to the environment by participating in DNR's **Resource Watch Program** (217-782-6431).
- Participate in DNR's **Acres for Wildlife Program**. A wildlife biologist will visit your property, prepare a management plan tailored to your goals and help you get started by providing access to planting equipment and no-cost or low-cost grass, trees and shrubs. Call 217-782-6384 to get the name and phone number of your local biologist.
- Help monitor Illinois' streams and forests by becoming a trained Citizen Scientist. For information about the **EcoWatch Network**, call 312-814-4747 or visit <http://dnr.state.il.us/inringif.htm>.
- Illinois law requires young people to take a special training course and pass a test before they can purchase a license for hunting or trapping. You can help teach them about laws, safety, ethics and wildlife conservation by becoming a certified instructor in DNR's **Safety Education Programs** (1-800-832-2599).
- Teach others about the environment. Be a **volunteer facilitator** for Project WILD, Project WILD Aquatic, Project Learning Tree or Project WET (217-524-4126).
- Contribute to the **Wildlife Preservation Fund** on your state income tax form. Interested in making a donation for a specific project? Contact the **Illinois Conservation Foundation** (1-312-814-7237).
- Join a **conservation organization** like Pheasants Forever, Ducks Unlimited, Quail Unlimited, or the National Wild Turkey Federation. Membership fees support wildlife conservation and some local chapters offer a chance to get involved with "on the ground" projects in your area.
- Take someone with you the next time you go **hunting or trapping**. These activities are highly regulated and can help keep wildlife numbers at acceptable levels, reduce damage to human property, provide funds for conservation, and obtain many different materials and products for human use.

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