

Rio Grande Wild Turkey

(*Meleagris gallopavo intermedia*)

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by Mary C. Kenamer



PHOTO BY D. ROBERT FRANZ

The Rio Grande wild turkey – similar to the other subspecies but with coloration of the tail tips and tail coverts lighter than the eastern and Florida but darker than the Merriam's and Gould's.

The Rio Grande wild turkey is native to the central plains states and got its common name from the area in which it is found — the life giving water supply which borders the brushy scrub, arid country of the southern Great Plains, western Texas, and northeastern Mexico. This subspecies was first described by George B. Sennett in 1879 who said it was intermediate in appearance between the eastern and western subspecies, hence its scientific name.

It is similar in general appearance to the other subspecies of the wild turkey and similar in body size to the Florida turkey, about 4 feet tall, but with disproportionately long legs. The Rio Grande turkeys are comparatively pale and copper colored. They are distinguished from the eastern and Florida subspecies by having tail feathers and tail/rump coverts

tipped with yellowish-buff or tan color rather than medium or dark brown. Although there has been more variation in the shade of buff/brown in the tail feathers among Rio specimens, the color is consistently lighter than in the eastern or Florida birds and darker than the same feathers in the Merriam's or Gould's subspecies.

Adult females, called hens, are smaller in size compared to the males, called gobblers, and similar in color but duller. Hens average 8 to 12 pounds while gobblers may weigh around 20 pounds at maturity. Feathers of the breast, sides, and flanks are tipped with pale pinkish buff.

The Rio inhabits brush areas near streams and rivers or mesquite, pine and scrub oak forests. It may be found up to 6,000 feet elevation and generally favors country that is more open than the wooded habitat favored by its eastern cousins. The Rio Grande is considered gregarious and, nomadic in some areas, having distinct summer and winter ranges. They may form large flocks of several hundred birds during the winter period. It has been known to travel distances of 10 or more miles from traditional winter roost sites to its nesting areas.

Rios apparently choose the tallest available tree, regardless of species, by a stream or in a deep valley when selecting winter roost sites. Gobblers are more likely to use winter roosts throughout the year. When suitable roost trees are scarce or nonexistent Rios roost on man-made structures like power lines, windmill towers or oil storage tanks.

The climate in the Rio Grande range varies from tropical in Mexico to continental in Kansas, a much wider variation than the rainfall which ranges from 15 to 35 inches per year.



The Rio Grande wild turkey gets its common name from the river which borders the arid scrub country of the Great Plains, Texas and Mexico.

A Rio Grande gobbler in full strut – sunlight reflecting its copper colors.

PHOTO BY ALBERT LAVALLEE

PHOTO BY DEWAIN JACSON



Typical Rio Grande habitat. The subspecies has been successfully transplanted in areas of greatly differing habitat as well.

Even the Rio Grande turkey is not adaptable to treeless prairies or vast spaces between wooded areas. It lacks coloration for concealment and is too large to hide in grassy vegetation. But as the hardwoods from the stream zones encroached onto the grassland with the advent of livestock farming and the control of prairie burning, turkeys seemed to increase in numbers. Some of the changes in vegetation actually improved the habitat for the Rio Grande turkey providing food, cover and roost sites.

However, overgrazing by livestock can be harmful, but the water developments, even temporary ones, created for livestock have a positive influence on the Rio throughout its range. This does not include the creation of reservoirs for new water supplies and electric power, because these waters inundate fertile bottomland feeding, roosting and nesting areas.

Breeding behavior is triggered primarily by the increasing day length in spring, but unusually warm or cold spells may accelerate or slow breeding activity. This behavior be-

gins while birds may still be in large winter flocks prior to separating as individuals or into small groups. Mating activities for the Rio Grande are in more open areas—roads, pipeline and power line rights-of-way, disturbed sites or areas with naturally short herbaceous vegetation.

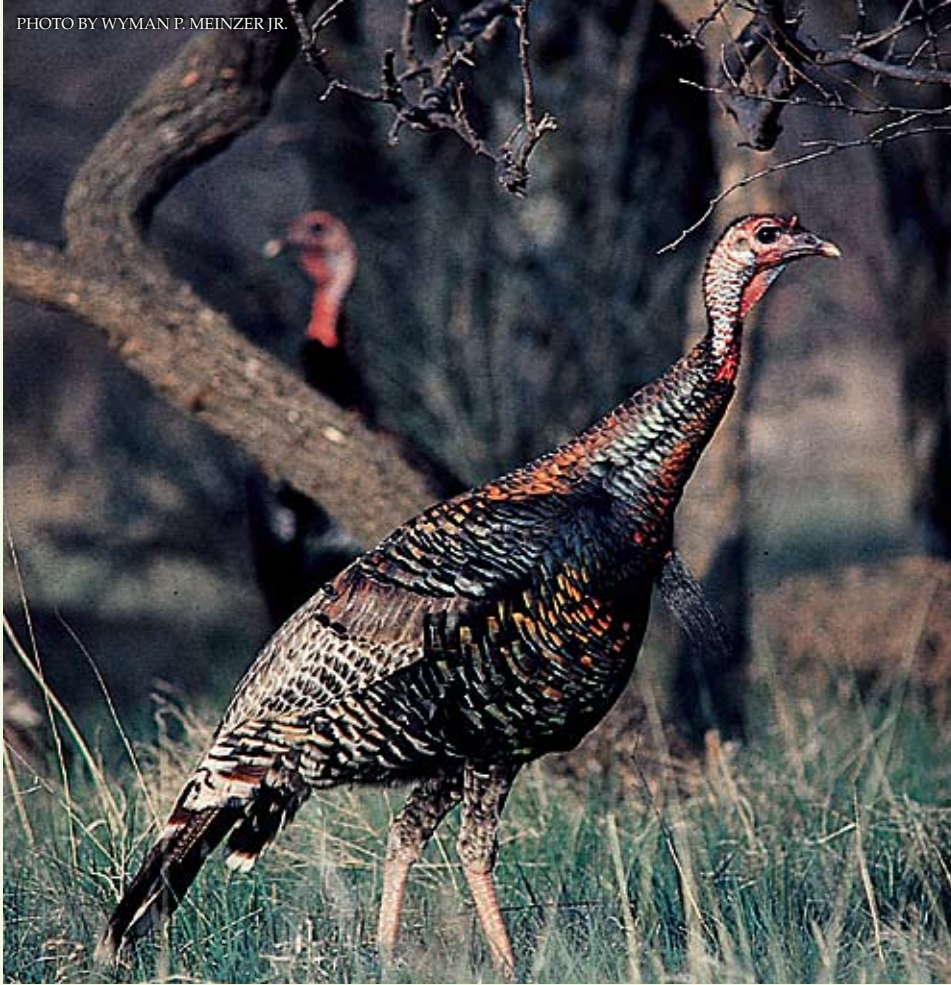
The basic social organization of these flocks is determined by pecking order with the most dominant bird at the top and the least on the bottom. Males and females have separate hierarchies, and there can be pecking orders within and between flocks of the same sex; while stable pecking orders within flocks of the same sex seem to be common to all wild turkey subspecies. Turkeys have home ranges, not territories where individuals defend space within a given habitat from other members of the same sex. Instead they fight for dominance recognizing individuals within the pecking order while sharing

overlapping home ranges.

Courtship behavior patterns include gobbling and strutting by the males. Gobbling attracts hens to males who court the hens by strutting. If the hen selects the gobbler for mating she crouches, which signals the male to copulate. The first peak of gobbling activity is associated with the beginning of the breeding period when gobblers are searching for hens. The second peak occurs a few weeks later, when most hens begin incubation.

Hens become secretive while searching for a site to nest prior to laying eggs. Laying hens may continue to feed with other hens and mate with gobblers, but this social activity will be away from the nest site. Rios apparently select nest sites that offer good concealing cover and are relatively near water, even if a roadside right-of-way meets that criteria. Nests are shallow depressions formed mostly by scratching, squatting, and laying eggs rather than by purposeful construction. In years of above-average rainfall, when there is more herbaceous ground cover, reproductive success can be 500 to 700 percent higher than in dry years when available ground cover was less dense.

PHOTO BY WYMAN P. MEINZER JR.



Rios have buff/tan tips on their tails feathers and tail coverts. Their coloration and size do not conceal them on the treeless prairies and vast open spaces.

Laying a clutch of 10 - 12 eggs takes about 2 weeks and unincubated eggs are usually covered with leaves. Continuous incubation begins about the time the last egg is laid at which time the hen no longer tries to conceal her eggs when she leaves for short periods to feed.

The hen will incubate for 26 - 28 days sitting quietly and moving about once an hour to turn the eggs. Actual hatching begins with pipping—the poult rotating within the shell, chipping a complete break around the large end of the egg. Hens respond to the pipping sounds by making soft clucks at random, a form of communication which begins to imprint the poults to the hen as she inspects the eggs and turns them. Damp poults clumsily free themselves from the eggs but are fully dry and coordinated so they can follow the hen away from the nest within 12 to 24 hours after hatching. This vocal communication between hen and poults still in the eggs is an important part the hatching process and is critical to survival of the poults.

Imprinting is a special form of learning which facilitates

the rapid social development of the poults into adults. It's a strong social bond between the hen and her offspring which occurs up to 24 hours after hatching. Imprinting describes the rapid process by which the young poults learn to recognize their species, essential for their survival. It happens at this time and cannot be reversed.

Day-old poults learn to respond to the hen's putt or alarm call before leaving the nest and respond by freezing or running to hide beneath her. The hen, clucking almost continually, slowly leads her poults away from the nest until within a few hours her pace is more normal. By now the poults have formed into a brood group that is constantly feeding by pecking at food items, a behavior learned from their mother. Rio hens and poults spend most of their time in areas with abundant food-producing herbaceous vegetation.

By the second day out of the nest, wild turkey poults are performing most of the characteristic feeding, movement, and grooming behavior patterns. By the end of the first week they are regularly dusting with the hen. By their second week they are able to fly short distances and at the third week they are able to roost in low trees with the hen. The ability to roost in even taller trees is an important event in the brood's development as it removes them from the danger of ground predators. Roosting occurs at the beginning of another phase of rapid development, the acquisition of juvenile plumage and a change in diet from predominantly insects in years of excess rainfall to a higher percentage of plant matter. This phase of behavioral and physical development is accompanied by a sharp decline in poult mortality. Poults that survive the first six weeks have a much better chance of surviving to adulthood.

At age 14 weeks, male and female poults are distinguishable by body size and plumage. They have formed separate pecking orders although still dominated by the hen until all males have finally left the brood group to form their own social units.

By fall, the pecking order of the sibling groups has been established and the young flocks are ready to enter the social organization of the surrounding population. The body growth of juveniles ends by the beginning of winter when flocks, separated by age and sex class, settle into winter range.

Rio Grandes have been introduced and have expanded wild turkey ranges into the more typically drier summer habitats of the lower elevations of the west in Nevada,

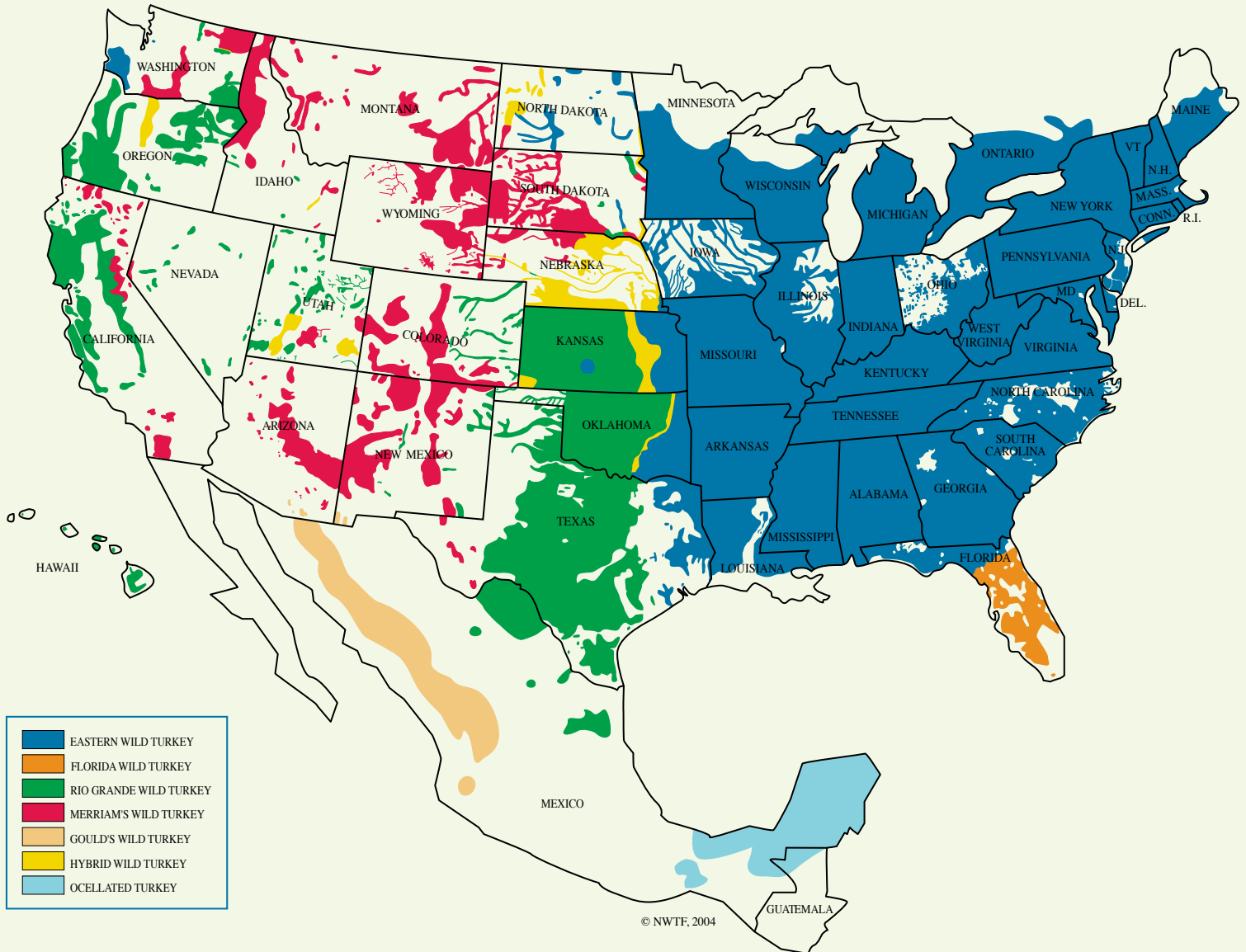
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Hunt. Conserve. Share.

Oregon, Washington, Wyoming, Utah, South Dakota and California. They have been successfully transplanted in areas of greatly differing habitat as well, from northern Idaho to Hawaii.

For additional information on this subject refer to "The Wild Turkey Biology and Management," edited by Jim Dickson. The book is available for \$59.95 from the National Wild Turkey Federation, call 1-800-THE-NWTF, or visit www.nwtf.org.

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The Rio Grande wild turkey can be found in the states shaded green on the map as well as in Hawaii and the northeastern portion of Mexico.



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