

HABITAT

Mearn's quail (*Cyrtonyx montezumae*), also called Montezuma quail, are found in dense grass cover in mountainous parts of south-central and south-western New Mexico. These relatively unwary birds are often first noted when they explode suddenly in a frenzy of vibrating wings at close proximity. When Mearn's quail are present, they are often more abundant than people think because they tend to live in heavy cover and hide rather than run or fly as other quail do. A hunter will need a good bird dog to census or hunt these quail.

PHYSICAL DESCRIPTION

Mearn's quail are about the same size as other New Mexico quail, about 8–9 1/2 in. Their coloration is a motley mixture of blacks, browns, and white, which provides excellent camouflage in the areas they inhabit (Figure 1).

FEEDING HABITS

Their feeding habits differ from other quail, which generally feed on seeds and forbs. Studies show that Mearn's quail prefer underground bulbs and tubers of wood sorrel and nut sedges; insects are second, followed by grass and forb seeds. Their feeding areas can be identified by the small holes and cone-shaped excavations they make while scratching for bulbs and tubers. Mearn's quail sometimes eat large quantities of acorns, but these are probably an emergency food. Free water does not seem to be necessary for them to exist and reproduce.



Illustration by Louis Agassiz Fuertes, from *Birds of New Mexico* (New Mexico Department of Game and Fish, 1928) by Florence Merriam Bailey

Figure 1. Male Mearn's quail.

FACTORS AFFECTING POPULATION

Drought and overgrazing are believed to be the factors most detrimental to Mearn's quail populations. Drought is harmful because the bird's preferred plants grow best in areas that tend to be more moist than surrounding areas; overgrazing removes the dense grass cover these birds hide in and eliminates the plants that produce their preferred foods.

¹ Department head, Department of Extension Animal Sciences and Natural Resources, New Mexico State University, Las Cruces.

This species nests later than other New Mexico quails, from early June through late September; therefore, Mearn's populations may benefit from a grazing system that rotates livestock out of areas where quail concentrate during nesting time. Proper grazing (where 50% or less of the current annual growth is taken) does not appear to be detrimental. However, especially in times of drought, heavy grazing during the growing season can eliminate Mearn's quail from an area.

Severe and prolonged winter storms also cause population declines. Heavy snow and frozen ground prevent them from digging for food. Under these conditions, Mearn's quail rely on seed-retaining trees and large shrubs for emergency food.

As with other quail, Mearn's populations usually depend on nesting success. Spring and summer moisture has a strong influence on hatches and chick survival. Although sufficient moisture is necessary for hatching, heavy rains shortly after hatching may lead to high chick mortality.

Original author: Charles Dixon, former Extension Wildlife Specialist, and Jim Knight, former Extension Wildlife Specialist.

MANAGEMENT RECOMMENDATIONS

Management information for Mearn's quail is extremely limited. A number of practices have been suggested but not tested:

- 1) Defer grazing during the growing season.
- 2) Plant food plots of chufa (nut sedges) in areas where Mearn's quail are found.
- 3) Build fenced enclosures to enhance nesting and hiding cover.

In general, Mearn's quail are a difficult species to manage. Even when quality habitat is maintained, uncontrollable factors may suppress the population. Likewise, winter populations may appear low, but a good nesting season and high chick survival will result in an abundant fall population.

New Mexico State University is an equal opportunity/affirmative action employer and educator. NMSU and the U.S. Department of Agriculture cooperating.