

A Covey of Bobwhite Quail Scratching Around for Food

(bolded words in text indicate key words and concepts)

Student Information:

The name of the bobwhite quail comes from the lovesick call of the male bobwhite. Listen closely next time you're in the longleaf pine forest for the whistle which says "bob-white".

Teacher Information:

The **bobwhite quail** and the longleaf pine ecosystem share a relationship of **commensalism**-a relationship between two entities where one organism benefits and yet the other is neither benefited nor harmed by the other. Bobwhite quail depend on fire in the longleaf pine forest to maintain abundant ground cover and clear the ground so they can scratch around for food.

This picture depicts male (white head) and female (brown head) bobwhite using their feet to scratch around the soil looking for seed (called "**scratch feeding**"). Bobwhite quail generally feed heavily just before dark. The majority of the adult bird's diet consists of vegetable matter. Of this vegetable matter, the seeds of fire-dependent native beans (legumes) are highly desired (especially during the winter season when grass seeds have spoiled). The reverse is true of birds two weeks old and younger. To help young birds grow quickly, their diet is comprised mainly of protein-rich insects. Fire helps maintain **bugging** areas where young chicks feed on insects.

Fire creates early **successional** habitat that is vital for quail. Without frequent fires in the longleaf pine forest, dead organic debris (called **duff**) would quickly accumulate making the search for food difficult. Frequent fires also stimulate the production of lush bunchgrasses that assist in evasion of predators.

By autumn of each year, bobwhites form loose groupings called **coveys**. Coveys are generally made up to 9 to 14 birds. Coveying allows quail to transfer information about food and cover resources to covey members, i.e., safety in numbers. This lessens the likelihood of **predation** on individual birds by snakes, hawks, bobcats, etc.

Quail remain in coveys, feeding and roosting as a unit, throughout winter. Early daylight hours are typically spent feeding. Mid-day is reserved for resting, preening, and dust bathing. In late afternoon, coveys feed again before forming the covey circle on the ground to roost at dusk.

By about mid-April coveys begin to break up. The early stages of covey break-up coincide with the time males (or cocks) start whistling their characteristic bobwhite notes.

At the turn of the twentieth century and during the Great Depression era, large blocks of land in south Georgia, central Alabama and areas of the Carolinas, were purchased by wealthy industrialists who wanted to establish areas where they could hunt quail. Today these quail hunting **plantations** represent some of the best remaining representations of longleaf pine forests.

Key Words and Concepts: bobwhite quail, bugging, commensalism, covey, duff, plantation, predation, scratch feeding, succession.