Landowners managing habitat for bobwhite quail can determine the effects of management activities by conducting a call count each year. Two methods of monitoring bobwhite quail populations include 1) spring whistle counts or 2), fall covey counts. Spring whistle counts are an estimate of the adult male birds present in the breeding population while fall covey counts are a measure of abundance just prior to hunting season. Depending on the size of the property, spring whistle counts can be less labor intensive and easier to conduct. Research shows the number of males heard in the spring is generally a good indicator of relative abundance in the fall. Fall covey counts require additional labor due to a covey's propensity to announce their presence to other coveys in a very short time period at daybreak. When used on a consistent basis over a period of years, these counting methods can indicate trends in the local quail population and provide information about how it is responding to management.



## **Listening Stations**

Depending on the topography and other environmental factors, one observer can hear a whistling bobwhite within about 550 yards in any direction, or within a 200-acre area. Permanent listening stations should be established at known landmarks approximately 0.5-0.6 miles apart. This should keep survey participants from "overlapping" their efforts. Mark locations of call count stations on an aerial photograph for future reference and to provide to survey participants.

## **Spring Whistle Counts**

The "bob-white" call of the male is heard for several months; however, peak calling generally occurs during early to mid-June in Alabama. Conduct the call count for three days during peak calling between sunrise and 8:30 a.m. Do not conduct the count on rainy days and days with wind speeds greater than 10 mph. Inclement weather conditions may affect calling and your ability to hear the "bob-white" call. To standardize the call count, arrive at the first station at sunrise, wait one minute to allow vehicle disturbance to settle, then listen for five minutes and record the number of quail you hear making the "bob-white" call. Continue until all stations are monitored. After completing the call count, calculate the average number of calling quail heard per station. Try to be consistent when conducting the count in subsequent years so population performance can be assessed and management activities adjusted as needed.

## **Fall Covey Counts**

Fall covey counts are used to provide a measurement of reproductive success or abundance just before the hunting season. During the late summer and fall, birds from different broods begin to mix and form coveys, or social groups, typically 10-20 birds. A few minutes before dawn, one or two birds from a covey will whistle, vocalized as "koi-lee." These calls announce a covey's location to neighboring coveys and may act to space themselves out across the landscape.

Surveys should be done in late October during the first calling period before sunrise and only on mornings with low cloud cover, low wind speed and steady or slightly rising barometric pressure. Surveys



participants should be in place 45 minutes before sunrise and monitor calling until sunrise and be aware that calling may only occur for 30 seconds to a few minutes.

Survey each listening station on the property on the same morning and conduct surveys two to three different mornings. One or two observers may be enough to conduct a survey on an average family farm or landholding in Alabama. Use the largest count of coveys for estimating the fall population. On large properties without enough observers to survey all points in a single morning, the area can be surveyed in blocks, the size of which depends on the number of available observers. Marking the approximate location of each covey on an aerial image will allow surveyors to determine if any "overlap" in survey effort occurred.

To estimate the bobwhite population on the property, multiply the number of coveys counted by the average covey size. You can estimate the average covey size by flushing and counting the birds in as many coveys as can be found on the property, or you can assume that 12 birds is a reasonable estimate of the average size of a covey.

Please visit the <u>Tall Timbers Research Station</u> and the <u>National Bobwhite Conservation Initiative</u> websites for additional information regarding call count surveys.

