
HUNTING RETURNS ON PEN-REARED BOBWHITES IN OKFUSKEE COUNTY*

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Propagation and release of pen-reared bobwhite quail to encourage restoration and increase of the birds is a popular activity on the part of many sports-

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man's clubs in Oklahoma. Precise effects of liberations of pen-reared stock on the resident population of bobwhite are unknown. With this in mind, the Oklahoma Cooperative Wildlife Research Unit, in cooperation with the Oklahoma Game and Fish Department and a number of sportsman's clubs, is giving detailed study to the point. All birds are banded on release. After liberation, it is important to check on the fate of the released, banded birds. It therefore becomes highly desirable to secure records of all banded birds found dead, killed, or otherwise taken.

The information herewith on hunting returns of pen-reared bobwhite includes records collected by the Okfuskee County Sportsman Club during the 1947 and 1948 hunting seasons. The club recorded this information on its own initiative and without suggestions from any outside agency. This is an example of the good work which could be accomplished by other organized sportsmen. By keeping records, the entire club and community became interested in the project and gave unusual support to the club program.

The Okfuskee County band return represents one of the highest, if not the highest, quail band returns ever recorded in Oklahoma. Some of the reasons for this high return are:

1. The Okfuskee County Sportsman Club is a well organized group having competent officials. Its many projects are carried out in a strict business-like manner. The club not only works to improve wildlife for sporting pleasure but to assist in the general improvement of Okfuskee County.

2. When hatchery quail from the state game farm arrive at the Okfuskee Club quail pen, every item is in readiness for them. The entire enclosure has been freshly mowed and raked. Specially designed coops have been thoroughly disinfected and properly spaced. Food, fresh water, and dusting sand have been placed in each compartment. Throughout the four-week confinement period a dependable man is hired to care for the birds. The club deems this important as volunteer labor cannot be depended upon. Other clubs have had poor results where the members took turns caring for the quail. Strict sanitation is practiced during the holding period.

3. A unique releasing method has been devised by this club. This also is probably one of the reasons for the high band return. The job is done substantially as follows: The quail committee selects reliable persons to receive the quail and notifies them well in advance as to date and time of release. Other members who are to assist in the release are also given proper notification. The release takes place on Sunday morning in order that ample assistance may be obtained. By starting at 6:30 to 7:00 a.m. those persons who attend church will be able to be present at services. The release usually requires no more than one and one-half hours. It is an advantage to release the birds early in the morning as it is cool at this time and quail are not likely to smother. The birds also have all day to adjust themselves to the new environment.

Actual handling is held to a minimum. To do this, special equipment was designed by the Okfuskee Club. The coop consists of an open run screened with $\frac{1}{4}$ " mesh hardware cloth and at the other end an enclosed coop with hinged top. A catch board which is the same dimension as the hinged top is substituted for this top. In the center of this catch board, a hole has been cut over which a heavy rubber inner tube is stretched and tacked at the circumference. A straight slit across the rubber allows the hand and arm to be thrust into the coop for quail. The birds are driven into the enclosed compartment by means of a wire mesh pusher which is a flat piece of hardware cloth attached to a handle. When all birds are in the coop, they are held there by a board which is slid in front of the opening. Cardboard boxes, 2' x 2' x 1', which have been obtained and prepared for the occasion are ready to receive one covey each. They are closed except a 2" flap which has been cut in the side through which the birds are placed. One man catches one

bird at a time and holds it while another applies the band. Another man keeps the record and when the entire covey is inside the box the flap door is sealed shut with scotch tape. After the band numbers are recorded on the box, the birds are given to the receiver who takes them to the person keeping records, and band numbers, section, township and range are recorded. The person responsible for the releasing takes the quail to the location given and liberates them near food, water and cover. The side of the box is cut away and the birds freed.

By working three or four crews at catching and banding, the entire job is finished in a short while. The club usually furnishes doughnuts and coffee in order that no one has to take time for breakfast.

4. Good publicity is received in the local paper, the Okemah Daily Leader, which is widely distributed in the county. A band registering station is set up in one of the local sporting goods stores where all bands taken are registered and the time and place of kill recorded. Other information includes number of birds in covey, number of banded quail killed, and number of native birds killed. Many townspeople drop in regularly to see how the band collection is progressing. All registered numbers are placed in a sealed box and at the end of the hunting season a public lottery is held to draw lucky numbers. Anyone is eligible to register bands and any number of bands may be registered. In 1947 several prizes were given away at the drawing of lucky numbers. In 1948 over \$200 was given in prizes. The main prize was a new shotgun. Some of the merchandise is donated by city merchants. An all-out effort was made by the club to aid the Cooperative Wildlife Research Unit in its study of the survival of pen-reared birds.

It is believed that the band collection was fairly complete, as few bands were returned to the Game Department at Oklahoma City. Some of the reasons for failure to return the bands were:

1. Loss of band
2. Ignorance of importance of band return
3. Carelessness on the part of the hunter

Of 2,389 pen-reared quail released in 1947, 302 were returned by hunting or otherwise. This number represented 12.63% of the total release. Of 1,755 pen-reared quail released in 1948, 272 were returned. This number represents 15.49% of the total.

The Okfuskee Club states that the 1947 return should have been higher because (1) club members had agreed not to shoot out banded coveys; (2) 20 birds which had been reared together were released as one covey; (3) prizes given at the drawing were of minimum value. The 1948 return was influenced by (1) an all-out effort by the club members to collect all bands; (2) coveys were split to 10 birds; (3) 10 prizes were given with a total value of \$200. Birds seemed to be much easier to find in 1947 than in 1948; they scattered more widely in 1948 which may have been a result of splitting coveys from 20 to 10 birds.

Of 401 birds released in July 1947, 14.71% were collected; of 978 quail released in October 1947, 12.16% were returned. The July release was 2.55% above the October 1947 liberation. In July 1948 two different groups of 398 and 371 quail were liberated. 17.59% of the 398 group was returned, while 22.64% of the 371 release was collected. Of the October 1948 release of 394 quail, 6.09% was returned. One July 1948 release was 11.50% higher than the October release; the other July release was 16.55% higher than the October liberation.

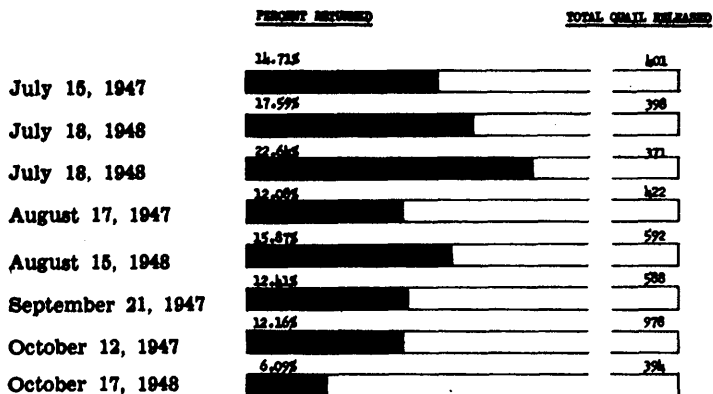


FIGURE 1. Percent of Band Returns from Releases of Bobwhite Quail Made in 1947 and 1948 Okfuskee County Sportsman Club.

The results would indicate that the earlier released birds were more apt to survive even though they are subject to decimating factors for a much longer period of time.

In 1948 single coveys of 10 birds were released at 4, 5, 6 and 7 weeks of age. This number is too small to give a true value but the returns on this group were equal to or above that of the same age group which was liberated at 8 weeks of age. If this is true for large numbers of birds, it would be more economical to turn quail out 1 to 4 weeks younger. Some judgment should be used as to weather conditions or other factors which might be destructive to younger quail. Few coveys remained on the area where they were liberated. Some drifted up to 5 or 6 miles. The average movement was approximately 1 mile.

All birds released in Okfuskee County in 1949 carry plastic markers, some of which were attached to the neck by surgical skin clips, others fastened to the wing by "sip" wing bands. This marker aids in field studies and gives the hunter an opportunity to recognize and collect pen-reared birds in co-operation with the restocking project. This restocking study is still in progress under the direction of Dr. Walter P. Taylor and Dr. F. M. Baumgartner, Leader and Assistant Leader of the Cooperative Wildlife Research Unit.

SUMMARY

The Okfuskee County Sportsman Club received 12.63% band return for 2,389 quail in 1947 and 15.49% of 1,755 birds in 1948. The reasons for this relatively high return were:

1. A well organized, active club
2. Proper handling of birds while under their care
3. A unique releasing method which gives the quail every advantage to survive
4. Good publicity which increased the number of bands turned in.

Records kept by the club indicated that the earlier releases (June) had a higher survival than the fall liberation (October).

All birds released in 1949 have been marked with plastic tags to aid in field identification.