



THE COVEY



A NEWSLETTER FOR LANDOWNERS, QUAIL HUNTERS,
ENTHUSIASTS, AND SCIENTISTS

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The goals of The South Texas Quail Project, a 4-year project, are to address basic life requirement issues of free-ranging northern bobwhites in southern Texas using band recovery, radiotelemetry, Global Positioning Systems (GPS), and Geographic Information Systems (GIS).

This issue highlights some aberrant findings that may or may not have been a result of the technological equipment. As you recall, last years rainfall patterns ranged from drought conditions from April to August 1998, a mild but below average rainfall winter, to average rainfall during spring and summer 1999. So, perhaps some of these findings were just weird because of the weather patterns. Nonetheless, I think they are interesting findings and they should make for thought-provoking stories.

Movements of Adult Bobwhites

- Spatial patterns of radioed bobwhites had specific daily, seasonal, and weather-related movements.
- It is not apparent that these birds behaved any different during the radio-tracking. That is, there was no observed change in patterns such as flushing, running, or staying during the life of the bobwhite.
- Temporal patterns of radioed birds during the drought tended to be associated with woody vegetation. This may be a factor of thermoregulation, cover for protection, or simply the fact that the drought-restricted movements into isolated patches of suitable habitat.
- Following the September rains, several coveys disbanded and dispersed distances that exceeded 2 miles. Initially, this coincides with the fall shuffle.
- Within a week of dispersal several nests were found.
- Radioed birds selected cordgrass areas from October through mid-December.
- The aberrant nesting may have been a result of the severe drought conditions during the typical breeding season, but yearlong nesting has been reported.

Movements of Adult Bobwhites with Chicks

- Chicks < 7-days old selected very dense stands of vegetation that provided vertical and horizontal screening.
- Perhaps, chicks use these stands for thermoregulation.
- These chicks were either adjacent, under an outstretched wing, or nestled under the adult bird.
- During this time, it was apparent that high predation occurred on the radioed adults.
- Survival of broods in which the adult was killed could not be determined since chicks were not radioed.
- Possibly, there is a minimum level of dense vegetation required for brood success.
- During fall, broods were often in association with an adult pair plus another adult male or female. This finding was not evident during the spring.
- The summer drought may have prevented covey breakup, which resulted in these associations.
- Interestingly, the associated bird was typically the first to flush.
- Future research is needed to address chick survival, brood habitat, and impacts on the overall population.



Photo by A. Radomski

Fall Nests

- Clutch size averaged 12 eggs and 90% hatchability.
- 20% of the nests were incubated by males. In all cases, the males abandoned their nests and were found within 5 days with a hen and week-old chicks.
- This suggests that males were either abandoning their nests to help another hen raise a brood, or the hen was the mate that laid both nests and it was a trade-off for ensuring one clutch survived.

Spring Nests

- Incubation started during the last week of March, back-calculating puts the start of nesting at mid-March.
- The March and April nests had an average of 16 eggs and 95% hatchability.
- There were 2 nests that exceeded 21 eggs; both these nests were predated.
- The average clutch size from May-July was 14 eggs with 90% hatchability for those eggs not predated.
- Nesting habitat during March and April was dominantly within cordgrass; however, summer nests were found in forbs and bunch grasses.

Aberrant Nesting

- One nest this spring was incubated by a pen-released hen mated with a translocated male.
- This translocated male was predated after the hen laid its fifth egg. The hen skipped laying an egg the next day, but subsequently laid an egg-per-day for the next 2 days.
- After the pen-released hen laid the 7th egg, she abandoned the nest and moved away from her nest site until she was no longer found using radio telemetry.
- Our protocol was to determine nest status when the radioed bird was not on the nest. Once, we checked a nest and flushed a non-radioed hen. We do not know why this bird was on the radioed hen's nest!

- During July, a radioed male was found incubating a nest. A female was caught, radioed near his nest, and later found incubating another nest. Both nests were successful, and within a week, these broods formed a "large brood."

Upcoming Events

South Texas Chapter Q.U., 11th Annual Banquet. Saturday, August 21, 1999. Kingsville, Texas.

Southeast Quail Study Group, 5th Annual Meeting, September 27-30, 1999. Starkville, Mississippi.

North Texas Quail Symposium. October 13-15, 1999. Abilene, Texas.

Congratulations

South Texas Bobwhite Brigade, 2nd Battalion - 1999.
Ashton Hutchins, Sam Walton Quail Scholarship.

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