

Operation Idiopathic Decline

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RPQRR pledges \$2M to investigate quail decline

Last Friday, at the 4th Distinguished Lectureship in Quail Management, the RPQRR announced a bold new research initiative to evaluate the role of disease in declining quail populations. The news release follows below, just after an e-mail I received from one of many anxious quail hunters. His observation is one of several I've received this winter of finding dead, intact birds.

"I am e-mailing you in regards to the West Texas Quail Hunting. I was hunting on [a ranch near] Colorado City over the weekend, and have been on the ranch for 15 years. Our question as several others is the decline over the years in the quail population, with this year and last being the worst on record. The instance that occurred is the one that thought you might be intrigued too hear. Friday morning I had a point along a nicely covered draw when approaching the dog nothing flushed, however I noticed a dead bobwhite on a fresh roost. I continued in the area and never jumped any birds."

- C.P., Kaufman, TX

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ROBY, TX—Bird dogs howl mournfully in their kennels. Quail hunters are frustrated. Researchers are stumped. Abundance of the bobwhite quail, an iconic game bird of the southern U.S, is at a record low, and nobody is sure just why.

"Bobwhite abundance has declined for a while, more drastically in some areas than others" said Dr. Dale Rollins, San Angelo-based research scientist with Texas Agrilife Research, and the director for the Rolling Plains Quail Research Ranch located just west of here. "But in recent years, we question whether rainfall is the driving factor, at least in the Rolling Plains. Recent observations seem to defy the prevailing habitat-precipitation paradigm."

Quail populations in Texas are known to wax and wane like the price of crude oil—and are often characterized by "boom and bust" cycles, especially in the western half of Texas. Such annual fluctuations are thought to be the result of variable rainfall caused by weather patterns (e.g., El Nino – La Nina oscillations).

For years coffee-shop talk has blamed quail "busts" on disease, and now a group of quail researchers are turning their attention to the possible roles of diseases and parasites in the decline of bobwhite quail.



Photo courtesy B. Haigh

“Disease, as a hypothesis for quail decline, has been ignored by the research community” observes Rick Snipes of Aspermont. Snipes, an avid and outspoken quail hunter, serves as President for the RPQRR. He says sportsmen and landowners across Texas and Oklahoma are united in their concern for the popular game birds.

“Herb Stoddard did the last serious discussion of diseases as a factor in quail happenings, and that was 80 years ago” said Snipes. “We think it’s time to take another look . . . a serious look.”

Stoddard wrote “The Bobwhite Quail” in 1931 and the book is still widely referenced today for its detail on the life history of the six-ounce game bird.

Snipes said the Board of Directors of the RPQRR has committed \$2 million as proof of the research ranch’s commitment to the new initiative. “And that’s 100 percent private dollars made possible by donations from concerned quail hunters.”

Snipes and Rollins praised the efforts of the Dallas-based group Park Cities Quail Coalition which alone has raised over \$1.3 million for the research ranch since 2008.

“It’s an understatement to say that quail hunters are very concerned—they’re not willing to just give up the ship” said Rollins.

“I’ve always been intrigued about the possible role of disease in quail dynamics” said Dr. Rollins. “For example, I cannot explain the sudden, widespread demise of the scaled [‘blue’] quail across its range in 1988 without the involvement of disease.”

Scaled quail populations have also declined since 2006, and as with bobwhites, Rollins says the drop cannot be adequately explained by weather or habitat alone.

“What we’ve observed with quail declines across west Texas since 2006 hints of something going on—it doesn’t appear to be habitat-related, and our weather during 2010 was favorable for a rebound . . . but it didn’t happen” Rollins continued.

Rollins said the decline of quail east of Interstate 35 can be explained largely as a result of habitat change, but he argues that habitat changes are not as apparent across the Rolling Plains.

“We’re talking about larger ranches out here, and the country looks pretty much like it did twenty years ago when quail were abundant” Rollins offered.

Various hypotheses from fire ants to the lack of fire (prescribed burning), from overgrazing to invasive grasses, and from a proliferation of wild turkeys to feral hogs have been touted as factors involved in quail decline.

"Labeled **Operation Idiopathic Decline**" (‘idiopathic’ is an admission that “the doctor doesn’t know”), the study is expected to continue for the next three years.

Rollins said the initial focus will be to sample quail during the late-summer period.

“The pattern most people are observing is good quail numbers until after Labor Day, then something seems to happen

between then and opening day. This has happened the last two years.”

“We don’t know if disease is the proverbial ‘smoking gun’ or not. We’re simply offering it up as a competing hypothesis to more habitat-based arguments” Rollins continued. “I’m glad to see the RPQRR provide funding to enable a systematic, serious study like this.”



Rollins convened a group of scientists from across Texas to form the nucleus of the disease consortium. Those scientists included Drs. Markus Peterson, Blanca Lupiani, and Guan Zhu from Texas A&M University, Drs. Brad Dabbert, Steve Presley, and Ron Kendall from Texas Tech University, and Dr. Alan Fedynich from the Caesar Kleberg Wildlife Research Institute at Texas A&M-Kingsville. Others involved include Dr. Kelly Reyna of Audubon Texas and Dr. Russell Ueckert, a practicing DVM and quail hunter from Abilene. Staff members from Texas Parks and Wildlife Department and Oklahoma’s Department of Wildlife Conservation also participated.

“This all-star team brings with them the expertise in virology, parasitology, toxicology and other disciplines essential to cracking the quail decline code” proclaimed Snipes. “And I’m excited that several of them are concerned quail hunters—that means they also have a vested interest in the outcome.”

“Eventually we hope to recruit internationally-known scientists onto our team” Snipes continued. “Science solved the decline of red grouse in Scotland and we’re hopeful for a similar success story on bobwhites.”

“Our initial goal is to stop the bleeding here in the Rolling Plains” said Rollins. “Hopefully we’ll learn things that can be applied to struggling quail populations further east.”

Quail hunters can serve as eyes and ears afield for the researchers.

“Anytime you discover a dead quail, or bag birds that appear light in weight or have spotted livers, put it on ice and give me a call immediately” said Rollins. “Dead birds found in the field were obviously ‘witnesses to the crime. Their carcasses may hold important clues.”

Rollins says the concern about struggling quail populations goes beyond just hunters.

“We’re talking rural economic development here. When quail numbers are down, fewer hunters show up to support hotels, convenience stores, and restaurants. A 2000 study found that 65 percent of quail hunters’ expenditures were spent in the local communities” Rollins noted. “And most of these small rural towns in west Texas are struggling—these hunting dollars are crucial.”

The Rolling Plains Quail Research Ranch was created in 2007. Its mission is “to preserve the heritage of wild quail hunting in Texas for this, and future, generations.” For more information about the ranch, see www.quailresearch.org. For more information about Operation Idiopathic Decline, contact Dr. Rollins at d-rollins@tamu.edu or 325-653-4576.

