



2012

HELICOPTER SURVEY OF FERAL HOGS WITH GROUND TRUTHING

Texas A&M AgriLife Extension Service

Goliad County

Cooperator: Wexford Ranch

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Summary

This survey was conducted on a 3500 acre ranch in the east - central part of the county. The predominate soils are fine sandy loams. The ranch has the Manahuilla Creek that runs through its' south western corner, US Highway 59 as a northern border and the San Antonio River as its southern border. The ranch has both bottom lands due to the water features that flow through it and uplands. The uplands are a mixture of coastal prairie with smatterings of south Texas brush. The ranch also has encroachment of the invasive species of brush, i.e., huisache. Calculations made with the data collected expressed a feral hog density of 1 hog to 30.1 acres.

Objective

Population dynamics (i.e., survival, reproduction, density, etc.) of feral hogs is poorly understood throughout their range. The latest feral hog model developed by the Texas A&M Institute of Renewable Natural Resources in 2011 found the average hog density in Texas from reported studies ranged from one point thirty-three (1.33) hogs/square mile to two point forty-five (2.45) hogs/square mile. This range represented a ninety five percent (95%) confidence interval. By multiplying the density estimate to the total potential suitable feral hog habitat, they estimate the number of feral hogs statewide to be between one point eight (1.8) and three point four (3.4) million hogs (mean 2.6 million hogs). If you further extrapolate this data to Goliad counties' eight hundred sixty nine (869) square miles computes to two thousand, one hundred twenty-nine (2,129) feral hogs in the county or one (1) hog to two hundred fifty eight (258) acres. Is this a good estimate for the Goliad county?

Materials and Methods

Two (2) helicopters were used in this survey, one (1) at a low altitude to push any hogs that might be laying in the brush motts, and one (1) at a higher altitude to count those that were pushed. Ten (10) persons on horseback were also used to push any hogs that might have been laying in brush motts. Communication was used between both helicopters and the lead cowboy. Fourteen (14) persons were positioned with ATV's on roads and pipelines and electric power line right of ways who would count hogs once hogs were pushed to them. The foliage of the brush was yet to be emerged, although brush species were budding leaves as this was late winter time frame for this survey.

Results and Discussion

The total acreage observed was three thousand four hundred and ninety-one (3491) acres. Dividing the totals of observed pigs, and dividing by the total acreage survey, the hog density on this ranch on the thirteenth of February was one (1) hog per thirty point one (30.1) acres. Although feral hogs may have a larger habitat area than this one ranch and they have no borders, this number is a better estimate for our county than using the state model. Extrapolating this number to the county means there are approximately eighteen thousand, two hundred seventy-two (18,272) hogs in the county. A similar survey was conducted on the Welder Foundation in San Patricio County which also had a one (1) to thirty (30) acre hog density in 2010.

Table 1. Pig Sightings including unidentified Wexford Ranch, East Central Goliad County, 2012.

| | | PIGLET | HOG | TOTAL |
|---------|---------|--------|-----|-------|
| 2/13/12 | 7:00 am | 29 | 87 | 116 |

Conclusions

With this data, the San Antonio River Authority was able to use better data for the feral hog component of bacteria load in the San Antonio River for the Karnes and Goliad Counties Holistic Watershed Master Plan.

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