

Livestock Guard Dog Case Study

Zuberbueler Ranch,
Val Verde County

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Scenario _____

A ranch located near Comstock, Texas, was used in this project. A ~2,000-acre pasture was selected for this project based on previous predation issues. The pasture has very rough terrain and very dense brush. Much of the pasture is not accessible except on foot or horse back. The fences are in poor condition.

Overall Management Plan _____

Two bonded livestock guardian dogs (5R Stock Dogs, Billings MT) were placed with 10 finewool ewes and their lambs. The sheep and dogs were held in a small working pen (3,000 sq ft²) overnight and they were released into a 10-acre trap the next morning. They remained in the trap for another day and were released to the pasture with a 300-head flock of sheep. The sheep distribute across the 2,000-acre pasture and are typically seen in small groups. Due to the rough terrain and fence condition, gathering all the ewes, rams, and lambs was nearly impossible. As such, lambing occurred at all times of the year.

General Observations _____

Observing the sheep and dogs was difficult because there were a limited number of accessible roads throughout the pasture. The pasture that the dogs were placed in remained their home territory. The dogs were not overly friendly and were difficult to catch, partly because they were wary of people and partly because the sheep were not easy to gather from the pasture.

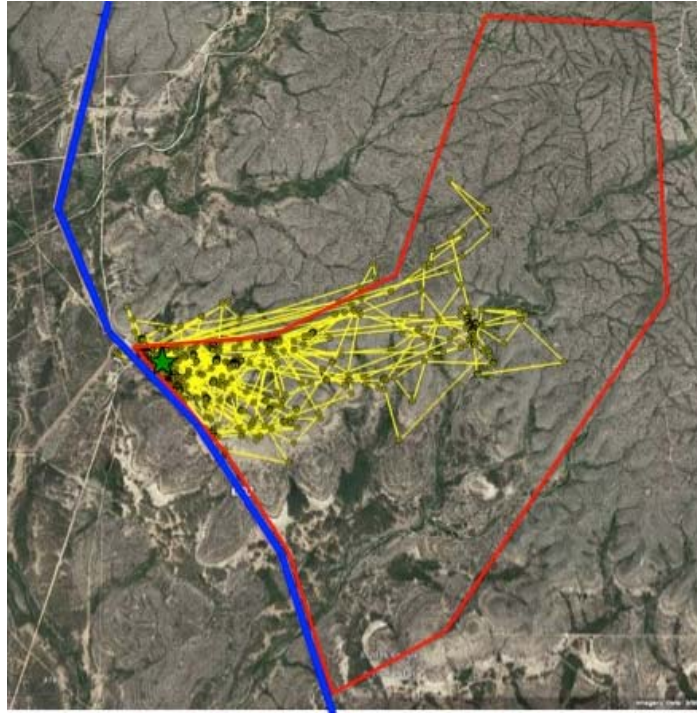


Figure 1. The map contains the hourly GPS locations of one dog during a 45 day period in late fall. The red lines are the pasture fencelines, the green stars are locations of dog feeders, and the blue line is a paved Farm-to-Market road. The pasture in the center of the map is approximately 2,000 acres.

Guard Dog Movement

At minimum, the LGD travelled an average of 1.7 miles per day. This was determined by measuring the distance between points taken every hour. Its home range was calculated to be 193 acres. Home range was determined by assessing where 95% of the GPS points were located.

Predation

At the beginning of the project, two of the 10 lambs that the dogs were placed with in the working pen had noticeable wounds around the throat and head, an indication that predation was a major problem at the beginning of the project. The lambs were only a few weeks old and it is likely the wounds were from small predators, such as fox or raccoons. Larger predators, like the coyote and bobcat, would not have had difficulty killing these lambs. Later in the spring, a few dead lambs were found that were reported to be predator related. A week later, a coyote was killed in the pasture by aerial gunning. The pilot noted that they did not see any smaller predators (foxes, bobcats, etc.) in the pasture. Two more coyotes were caught in snares in neighboring pastures within the same time frame. Later that fall, two more coyotes were killed by M44 in neighboring pastures. The guard dog was found in these pastures shortly after this. Fortunately, the dog did not pull an M44 and they were removed from the pasture.

Camera Trapping

Two game cameras were put out for one month quarterly during the year. They were checked weekly. Locations were selected that were likely to catch predator movement, along roads, near water sources, etc. Only two fox were captured on camera and they were seen just after the dogs were placed.

Table 1. Wildlife detected with game camera survey.

	Winter	Spring	Summer	Fall
Coyote	0	0	0	0
Bobcat	0	0	0	0
Red Fox	0	0	0	0
Grey Fox	2	0	0	0
Feral Swine	0	0	0	0

Lamb Crop

At weaning, the lamb crop from the pasture with the dogs was very low (15 to 25%). This was consistent with other neighboring pastures. Either the dogs were not able to control predation in this scenario, or a large majority of lamb loss had occurred prior to the dogs' arrival, or both.



Problems

At the beginning, the dogs did not eat well from the self-feeders. They were reported to travel to neighbors' property, they were seen on the highway, and they were seen in neighboring pastures. One of the dogs was caught in a leg trap in a neighboring pasture and it went missing shortly thereafter. The remaining dog was reported to roam less often after the other dog went missing.

Question and Answer

- **What were the most positive benefits of the program?**
Glad to be trying something different to control predation. And learned quite a bit about livestock guardian dogs during the process.
 - **What was the greatest challenge with the program?**
It was tough keeping them at home and frustrating to have to deal with them leaving the ranch at inconvenient times. It is a challenge working with the trapper and having livestock guardian dogs to trap around. In my operation, it is hard to know if they are working or not.
 - **What are your plans for the future related to guard dogs?**
Undecided at the moment. I need more information.
 - **What would you have done differently?**
I would have put them in a different place.
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