

SEARCHED  
SERIALIZED  
INDEXED  
APR 1 1986  
FBI - PHOENIX  
4/1/86  
4/1/86

SE

APR 1 1986

Mr. James C. DeVos, Jr.  
Field Contract Administrator  
Arizona Game and Fish Department  
2222 West Greenway Road  
Phoenix, Arizona 85023

Dear Jim:

As is obvious, we have been delayed in providing written comments on the "Interim Report on the Sonoran Pronghorn Antelope." Unfortunately, due to other pressing commitments, we will not be able to provide a page-by-page critique of the report; however, we feel we can provide sufficient guidance to allow the interim report to be expanded into a final report for the project.

As discussed at the last recovery team meeting as well as in my letter of December 20, 1985, our greatest concern is that the pronghorn study be fully and accurately documented. Reviewers of the report should be able to picture exactly what took place and under what circumstances. With a few additional items we feel a complete report can be developed by inclusion of the written recommendations you have already received from the recovery team, the National Park Service (NPS), the Cabeza Prieta NWR, and staff members of the Arizona Game and Fish Department. The additional items mainly consist of the tables and charts we suggested at the recovery team meeting. Since so little is known about Sonoran pronghorn, any data obtained during the study may become valuable information to future researchers. For that reason, we feel that as much data as possible should be included in the report.

In the interest of putting water availability in perspective, we would suggest that the water sources shown in Figure 4 of the report be numbered and then identified in an appropriate table of supporting information. It is our understanding from NPS and the staff of the Cabeza Prieta NWR that some of the water sources indicated in the figure are unknown to them or would not be considered as being available to pronghorn. In part, the supporting table should include the water source number, its name, the nature of the water source, and its seasonal availability.

A table showing all physical data on each animal captured is also warranted. The table should include all items recorded on the field data sheets that were completed at the time of capture as well as subsequent information such as tanning, date of death,

presumed cause of death, and disposition of remains. The type of transmitter used on each animal should also be included. The data in the table would then have to be checked against statements in the text of the report to make sure they are consistent. For example, a statement on page 18 of the interim report states that net entangled animals were not held more than 5 minutes. Our copies of the field data sheets indicate that some animals were held up to 10 minutes. Another statement states that photoelectric cells were used on some transmitters to increase battery life. This could be interpreted as meaning that the cells recharged the batteries; however, it is our understanding that the cells were actually switches that shut off the transmitter at night. It would be clearer to refer to the transmitters as being equipped with photoelectric switches rather than cells. The amount of data to be recorded may be excessive for clear presentation in a single table. You may find that you will need to present it in several tables.

A table or appendix should also be provided showing the results of the analysis of blood, fecal, parasite, hair, nasal, vaginal, and ear samples. This is the first time such samples have been examined and the results are the beginning of the formation of baseline data for the subspecies in its present habitat. Full results should be available to our peers. Statements on page 22 of the interim report that analysis did not show any remarkable differences or proved unremarkable are inadequate for scientific reporting.

So that the effort can be duplicated in future studies, a map should be produced to show the distribution of the rain gauges that were placed in the area. This can be simple lines on the map indicating the number of gauges on each transect and their spacing. The map should be supported by a table showing the date the gauges were put out on each transect, the date the gauges were checked, and results.

Like the rain gauge transects, a map should be produced showing the location of the vegetative transects. This map should be supported by a table showing the dates the transects were surveyed so that the results can be compared with the distribution of the pronghorn.

The interim report covers approximately a 74-week period (October 1983 to March 1985). The text indicates that radio locations were checked weekly, yet, the number of locations recorded per animal range from a minimum of seven to a maximum of 31. If the locations were checked weekly over a 74-week period, the data would indicate a location success rate ranging from 9 to 42 percent. We know this analysis is not correct and we understand the field logistical problems that led to the results. However, an uninformed reviewer will conclude that the success rate in finding the animals was low. We are aware that due to problems with scheduling, weather, available personnel, etc., that it was

not possible to check the radios weekly during the full period of the study. Therefore, the field situation should be clarified in the text of the report and supported by a table showing dates radio checks were attempted, the reason for cancellation (if cancelled), and the animals that were located on each attempt. Depending on the amount of data available, this table could include both the aerial and ground data, or a separate table could be prepared for the ground data.

For home range charts, reviewers of the report need to know each location of the animal and the date of the location. This can be accomplished by coordinating the charts with the telemetry data table discussed above. Each chart could have numbers, i.e., 1-7 or 1-31, showing where the animal was found on each check. Number one on the chart for female #149,081 would indicate the location of the first reading shown for that animal in the telemetry data table, etc.

Our last comment is that there does not seem to be any reference to the electrophoretic blood samples that were taken. We are aware that these were sent off for analysis as were subsequent samples taken from pronghorn from another area. It is our understanding that the data from the samples has not been reported back to you yet. In the interest of recording that such an effort was made and that data may be available to future researchers, the nature of the samples and the type of analysis they are undergoing should be reported. Samples from Sonoran pronghorn alone are not of much value; however, when compared with samples of other subspecies, in the future they may provide insight into pronghorn taxonomic relationships. Of great importance is certification that the samples taken from non-Sonoran pronghorn were from native animals known to be of a specific subspecies. As we have discussed, due to the trading and transplanting of pronghorn between States over the years, the relationship of the accepted subspecies may now be clouded by the fact that native subspecies may have been hybridized in the wild by pronghorn brought in from other areas.

This concludes our comments. Please let us know if you have any questions. We have not received any charges against the \$10,000 we had allocated for the Sonoran pronghorn study. Under the terms of the cooperative agreement between our agencies, the State is entitled to request reimbursement of project expenses up

to 90 percent of the Fish and Wildlife Service allocation. Once the project final report is approved, you may request the remaining 10 percent.

Sincerely,

/s/ Curtis J. Carley

Curtis J. Carley  
Endangered Species Biologist

cc: Mr. R. Romington, Team Leader  
Manager, Cabeza Prieta NWR

CCarley:ep 4/1/86