

DATA ANALYSIS UNIT PLAN

Executive Summary

DAU: D-33, MESA DE MAYA

GMU's: 143, 144, 145

Current Population Estimate: 2432

Old Population Objective: 2350

New Population Objective: 2350

Current Sex Ratio: 41 bucks/100 does

Old Sex Ratio Objective: 33 bucks/100 does

New Sex Ratio Objective: 33 bucks/100 does

Changes from current objectives/management:

There are no changes to the current management objectives. The alternative chosen in 1988 is still acceptable for the current plan for both population level and sex ratio.

Significant issues raised from the public and how the plan addresses those issues:

Most comments received from the public involvement process dealt with policy or political issues dealing with hunting rather than biological issues. Major herd management issues concern a desire for more large mule deer bucks and what can be done about reducing whitetail deer numbers. The general feeling is that whitetails are out competing mule deer and pushing them out of traditional mule deer areas. To address these concerns a separate whitetail deer only license has been suggested which may reduce or hold in check whitetail numbers and would reduce some pressure on mule deer bucks allowing them to grow larger. DAU objectives for population and sex ratio will remain as defined in 1988. More information is needed before a whitetail only license season is proposed by the CDOW.

MESA DE MAYA DATA ANALYSIS UNIT

DEER MANAGEMENT PLAN

D-33

GAME MANAGEMENT UNITS

143, 144, 145

Prepared For:

THE COLORADO DIVISION OF WILDLIFE

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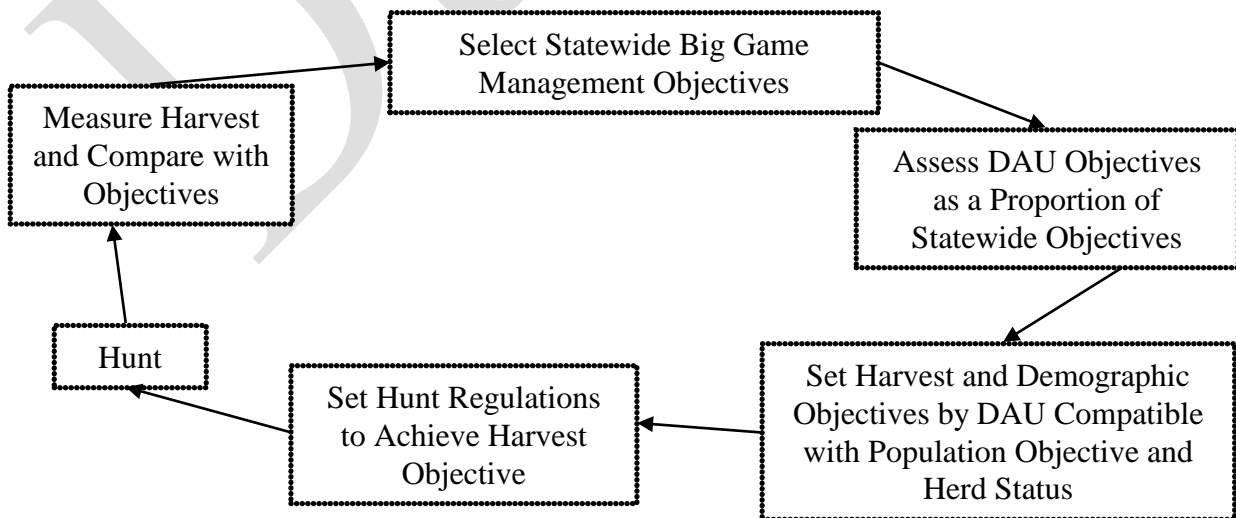
DATA ANALYSIS PLANS AND OBJECTIVES

Historically, big game seasons were set by tradition and/or political whims rather than by current wildlife population levels or habitat conditions. This is still the case to some extent however, with today's advances in technology and information exchange, the public is demanding more accountability for wildlife management. To meet this demand for accountability, the Division of Wildlife (DOW) has established objectives for individual herds of big game animals. These herds are managed at the Data Analysis Unit (DAU) level. Individual herds are managed for long term population objectives as well as desired buck:doe:fawn ratios. These objectives are established for five year intervals determined by historic population levels tempered with current conditions. The plans are currently being developed for the 2005 long term objectives based on public input, land use changes and game damage conflicts.

Each DAU is composed of one or many Game Management Units (GMUs) managed for a specific herd of animals. The boundaries of the DAU are generally defined by geographic features which minimize animal movement into or out of the DAU. The approach used to manage a DAU relies on the short and long-term demographics and size of a big game herd. Annual information on each herd is collected, then analyzed, and decisions are made for the upcoming hunting seasons. This cycle repeats on an annual basis with the number of available hunting licenses adjusted to meet yearly herd objectives for sex ratio and population size. These plans are designed to meet both the public's desires for wildlife based recreation and the Division of Wildlife's Long Range Plan Goals, while at the same time minimizing human/wildlife conflicts.

Colorado's Objective Cycle of Big Game Management and Harvest

(Adapted from Conolly in Walmo 1981, pp263)



Members of the general public, clubs, organizations, and governmental entities are provided many avenues for input into the DAU planning process. Opportunities to comment are provided at public meetings, through written requests, through personal contacts between DOW personnel and these groups, and by attending Wildlife Commission meetings. All comments and suggestions received will be considered and applied to these management plans where feasible and pending approval of the plan by the Wildlife Commission.

MESA DE MAYA DAU

DAU Physical Description

Mesa De Maya DAU is located in southeastern Colorado (Figure 1). Boundaries include; Baca County road M and highway 160 on the north; highway 287 on the east; the Oklahoma and New Mexico State lines on the south; and on the west by highway 389. The DAU includes three game management units and covers approximately 1,504 square miles. The geography of Mesa De Maya DAU is varied and includes; cedar breaks, canyon lands, short grass prairie, agriculture and pasture lands. There are several drainages across the DAU, most of which flow towards the south or southeast and become part of the Cimarron River system. The Cimarron River flows across the extreme southeast corner of Colorado with the greatest length passing through unit 145. The climate of the area is characterized by long, hot dry summers and mild winters with severe thunderstorms and occasional severe blizzards normal.

The Mesa De Maya DAU is primarily private land. The majority of public land within the DAU is found on the Comanche National Grasslands and is administered by the USFS. There are limited amounts of land controlled by the Bureau of Land Management (BLM) and the State Land Board (SLB) with grazing rights leased to private ranchers. The Colorado Division of Wildlife (CDOW) manages very limited amounts of public lands in D-33. Land controlled by government agencies accounts for 23% of the DAU. Most public land is found on the Comanche National Grasslands and is scattered across the DAU in various sized blocks.

Land use (both public and private) is almost exclusively agricultural. Livestock grazing occurs on private land, the Comanche National Grasslands, BLM, and SLB properties. Farming methods consist of both dryland and irrigated crops with alfalfa, wheat, corn and milo being the predominant crops produced.

Land use in the DAU has not changed significantly in recent times. Development is not currently a significant threat to deer habitat. The major changes would be in varieties of crops planted and a slight increase in center pivot irrigation systems. Total acres of dryland farming has decreased with up to 30% of eligible land in some counties enrolled in the Conservation Reserve Program (CRP). CRP has provided a "refuge" for many species of wildlife and deer have adapted quite well to the cover offered in CRP fields. This may be one factor in the spread of whitetail deer throughout the DAU.

POPULATION DYNAMICS

Deer Distribution

Deer are found throughout the DAU with concentrations occurring on or near river or creek drainages. Some areas of high intensity row crop agriculture are frequented by deer especially in late summer, fall and winter. This tendency to concentrate in agricultural fields has led to game damage complaints in the past, especially on corn fields. Other areas of deer concentration causing concern from landowners is in windbreaks, shelter belts, and home sites where the deer eat the trees or break trees by rubbing their antlers on them.

Deer Population Size

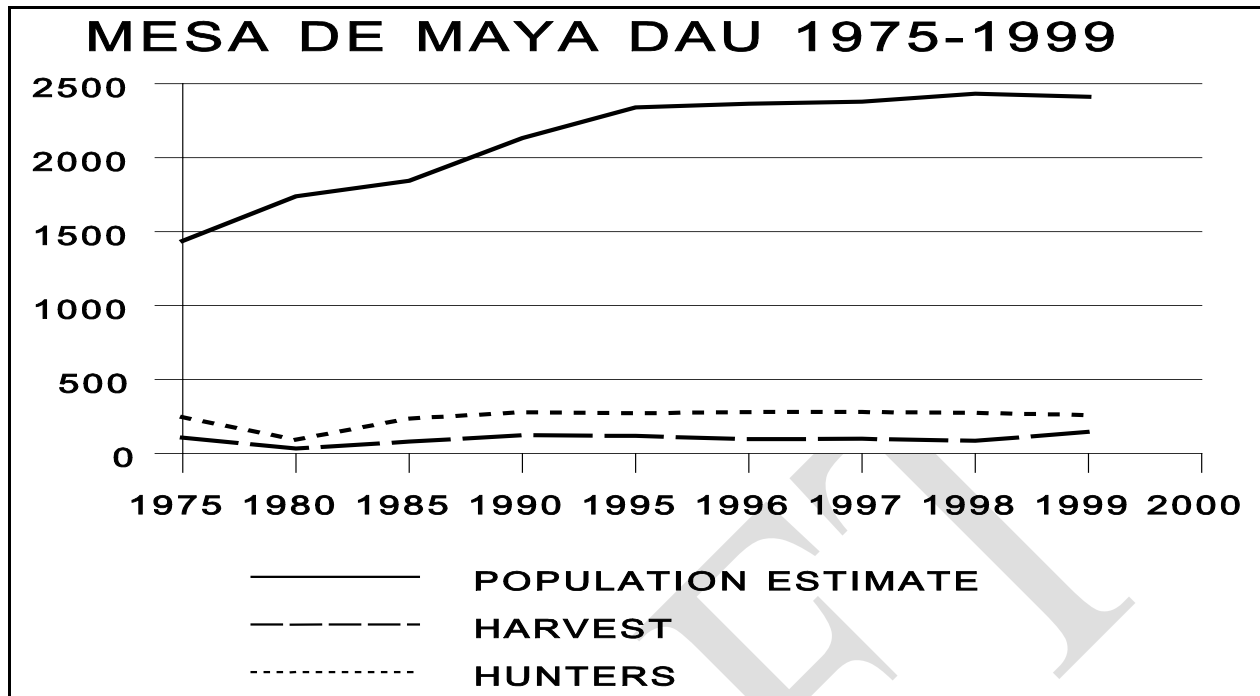
The deer population in D-33 increased steadily until it peaked in 1998 with a total post-hunt estimate of 2432 deer. By 1993 the DAU population objective had been attained. Since that time licenses numbers have been allocated to maintain the goal of 2350 deer. The current population is estimated at 2432 deer. (See Figure 2 for population data).

Deer Harvest

Deer harvest has varied from a low of 33 animals in 1984 to a high of 210 in 1982. The peak doe harvest occurred in 1995 with 22 females and young harvested. Buck harvest peaked in 1982 with 206 bucks taken. The first established deer hunting seasons were for unlimited buck hunting. Demand for licenses has remained constant after being designated a limited area for antlered and antlerless deer hunting. Beginning with the 1999 hunting season archery deer licenses will be limited for the first time. Limited muzzleloading licenses will also be available specified for either buck or doe. (See Figure 2 for harvest data).

Hunting Pressure

Since all rifle licenses have been limited for some time, hunting pressure in the DAU has remained relatively constant over the years. Demand for archery licenses has not increased significantly. Recently, southeastern Colorado has gained a reputation as a trophy whitetail hotspot and is drawing hunters from across the country. This, combined with southeast Colorado's notoriety for trophy mule deer, has brought a growing number of outfitters and trophy hunters to D-33. Hunters applying for rifle buck licenses can expect to draw with 0-1 preference points depending on which unit they select. Doe licenses are typically drawn with 0 preference points and most years there are leftovers available. Ranching For wildlife (RFW) buck licenses are more difficult to draw requiring up to 6 preference points to obtain a license.



HERD MANAGEMENT

Current budget constraints limit the amount of deer inventory which can be performed on the Mesa De Maya DAU. Additionally, the low density of deer found on this type of habitat has made quadrat sampling methods very inefficient. Most herd data is obtained from harvest surveys, DOW field personnel, local landowners, and sportsmen.

This data is either entered into the POP II population modeling program (Fossil Creek Software, 1992 v.7.03, Fort Collins, CO) or into a spreadsheet population modeling program (Dr. Gary White, Colorado State University, Fort Collins, CO). From these models and observed data, a herd composition and total herd population projection can be made based on the number and type of hunting licenses offered.

Current Conditions

The post-hunt population estimate for 1998 is 2432 deer which is 82 deer over the long-term population objective of 2350 deer. Current buck:doe ratio is estimated at 41 bucks per 100 does which is above the objective of 33 bucks per 100 does. Management is geared toward reaching the buck:doe ratio while maintaining the population at the current DAU objective.

Issues and Strategies

There have been few, if any, recent game damage complaints for deer in D-33. Concern has been expressed about a perceived population decline of mule deer, especially in the pinon-juniper

canyon areas. Local speculation is that mountain lions have reduced deer numbers. In order to address this issue, the quota of lion permits for this area has been increased from 5 to 10 lions. However, since the increase in lion quota one-year ago, there have only been 2 lions taken from this area.

Due to the number of reports from landowners and DOW field personnel concerning the deer population levels, and the widespread decline of mule deer in Colorado and across the west, serious consideration will be given to reducing deer license numbers where evidence dictates it is appropriate.

Major issues gathered from public input:

1. Want more large mule deer bucks
2. Need to increase mule deer numbers
3. Need to decrease whitetail numbers

Issue number one may be a result of increased pressure from trophy hunters on mature bucks. Harvest records from RFW properties and local hunting guides do not show a significant decline in mature bucks. However, fewer 30" plus bucks may be available for harvest. One alternative to increase the number of mule deer would be to reduce the number of whitetails with a "whitetail only" season which could address issues two and three simultaneously. The idea of having a separate whitetail only season has been brought up before and could have some merit. However, before such a season is proposed and instated, there needs to be much research done to determine if the average hunter can differentiate the difference between whitetails and mule deer under field conditions and whether this type of season would accomplish the objectives it would be designed for.

Additional benefits of a separate whitetail season would be to remove more whitetails from the population while reducing pressure on mule deer bucks. This would allow a higher percentage of mule deer bucks to attain the greater antler width desired by many hunters. If this alternative season is attempted, it should be tried on a very limited basis until a proper scientific evaluation can be made on the success or failure of the alternative.

Alternative Development

Announcements (Appendix A) for combined deer and antelope public input meetings concerning DAU planning were made in several ways. Flyers were distributed locally to businesses and individuals and hung in locations frequented by those likely to be interested in such plans. These same announcements were run in; the Lamar Daily News, the Tri-State Trader, the Baca Weekly, the Plainsman-Herald, the Lajunta Tribune-Democrat, and the Burlington Record. Copies of the announcement and comments received from the DAU planning meetings can be seen in Appendix A.

Additionally, letters requesting DAU plan input along with the flyer announcing the upcoming meetings were mailed to fifty-four clubs, organizations, sportsmen's groups, natural resource agencies, and grazing associations. From this mailing effort a grand total of zero responses were received at the Lamar office of the CDOW. Copies of the letter, along with names and mailing addresses of those receiving a letter, can be seen in Appendix A.

All public input has been received and considered. Based on external comments received from the public meetings and internal comments from CDOW personnel, the current long-term population goals and sex ratio objectives will not be modified. Since no comments were received requesting an increase or decrease in deer population levels, or change in population demographics, the current DAU goals and objectives will remain in place. No written comments were received concerning this DAU plan.

Preferred Alternative

The preferred alternative, and the original alternative chosen when the plan was written in 1988, is for a post-hunt population level of 2350 deer. The preferred buck:doe ratio is 33 bucks per 100 does, also the same as originally accepted in 1988.

Table 1. Population Alternatives Provided (These are the same alternatives discussed when the original plans were written and the same currently offered).

D-33, MESA DE MAYA

<u>Alternative number</u>	<u>Population Level</u>	<u>Bucks/100 Does</u>	<u>Approximate # of Licenses</u>
1	1760	23	656
	1760	33	588
	1760	43	407
2	1955	23	732
	1955	33	653
	1955	43	450
3	2150	23	800
	2150	33	718
	2150	43	491
4	2350	23	870
	*** 2350	33	782
	2350	43	539

*** Alternative chosen

APPENDIX A

COMMENTS RECEIVED FROM PUBLIC MEETINGS AND
WRITTEN REQUESTS

DRAFT