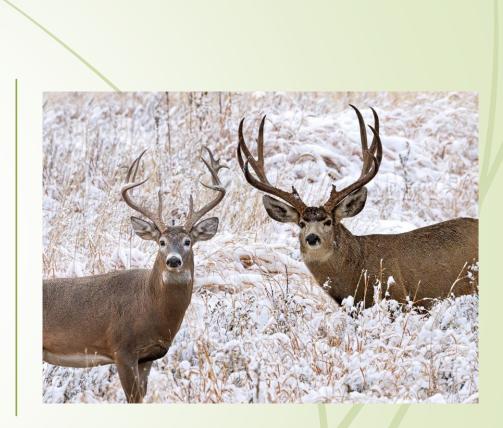
Deer Harvest Management

Eric Freeman Zach Lockyer David Dressel Erik Bartholomew



Harvest Management

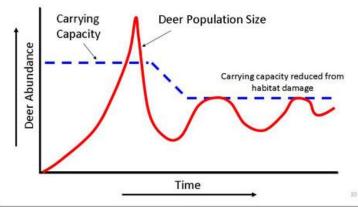
So......Given what we know about mule deer biology and population status, What should we do about it?

Core question for wildlife managers and wildlife enthusiasts advocating for a course of action.



Biological Outcomes:

- Management for habitat protection (preventing overuse)
 - Reducing densities after wildfires to allow winter range to reestablish
 - Reducing or moderating densities to prevent overuse of browse



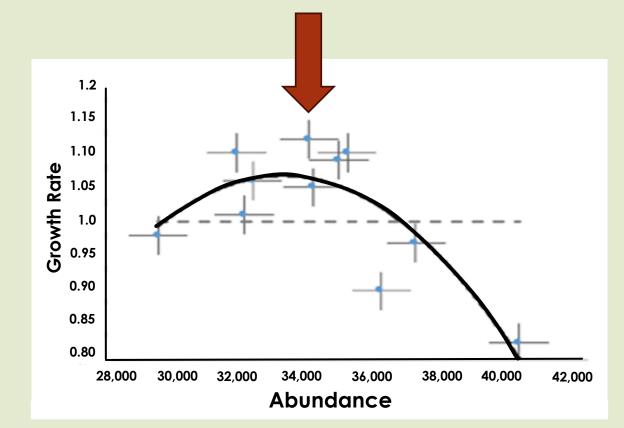




Biological Outcomes:

Management for maximum productivity







Biological Outcomes:

- Management for disease prevention or a decrease in disease prevalence
 - Idaho dramatically reducing deer abundance in the slate creek drainage to inhibit the spread of CWD
 - Colorado increasing harvest on adult males to reduce CWD prevalence rates







Social Outcomes:

- Management for maximum opportunity
 - Over-the-counter tag availability
 - Long season dates and multiple weapon choices
 - Antlerless harvest and Increased bag limits
- Management for maximizing mature bucks
 - Controlled hunting with restrictive rules
- Continuum of strategies across the western U.S.
 - Nevada, Colorado, Utah, Wyoming, Idaho, Montana





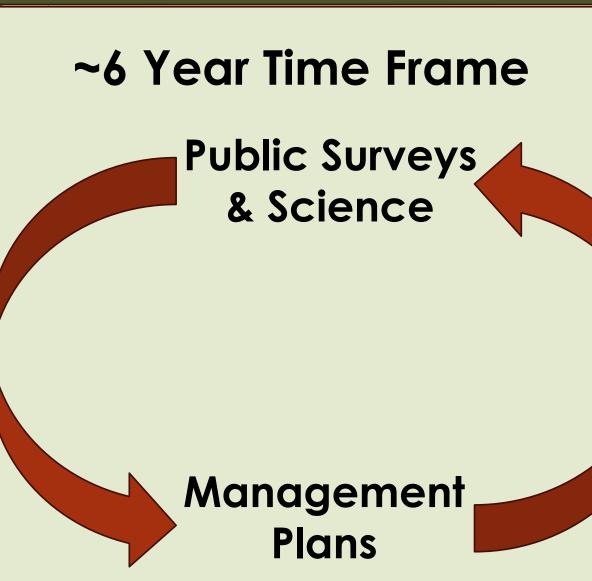
What Outcome to Manage For?

- Knowing how to achieve each of these options is the easy part
- Knowing which outcome(s) to manage for or how to balance them is more difficult

- Public surveys inform Department staff of public preferences for Idaho's wildlife
- Management Plans consider the Department's mission and summarize the best available science and public preferences
- Season Setting implements the management plan on a local level and allows another level of public input about specific harvest season proposals as decisions are made.



What Does this look like in Practice?



 This process provides managers with a big-picture framework to work within.



Idaho Mule Deer Management Plan 2020-2025





What is a Management Plan?

- Summary of direction from public input and the department's mission
 - Reviews relevant biological information
 - Summarizes management methods
 - Presents population data
 - Sets goals for mule deer management
- IDFG Mission Statement excerpt: "It shall be only captured or taken at such times or places,....., as will preserve, protect, and perpetuate such wildlife, and provide for the citizens of this state and, as by law permitted to others, continued supplies of such wildlife for hunting, fishing, and trapping."



Idaho Mule Deer Management Plan 2020-2025



Prepared by IDAHO DEPARTMENT OF FISH AND GAME December 2019



What is a Management Plan?

Executive Summary

Mule deer hunting is ingrained in Idaho's cultural heritage and supports more hunters and more hunter days than any other big game species. Pursuit of mule deer has introduced generations

of young Idahoans to hunting, facilitating preservation of the Gem State's rich hunting tradition. Further, mule deer hunters spend tens of millions of dollars on trip-related expenses each year, providing significant contributions to rural Idaho communities.

The Idaho Department of Fish and Game (IDFG or Department) was established to preserve, protect, perpetuate, and manage all of Idaho's fish and wildlife. This revision of the Mule Deer Management Plan tiers off the IDFG Strategic Plan and will provide guidance to staff to manage mule deer during the next 6 years at both statewide and population-specific scales.

A significant component of the Plan introduces concepts for addressing hunter congestion, which has been an ongoing concern for Idaho's mule deer hunters. The Department will work with the Idaho Fish and Game Commission and mule deer hunters to identify the most appropriate and acceptable strategies to address hunter congestion. Idaho's mule deer hunters are clear about their desire to maintain annual hunting opportunity, and IDFG has been able to continue the tradition of providing that opportunity. Identifying and implementing strategies to address hunter congestion, while continuing to provide abundant opportunity, will be a complicated endeavor. If hunters decide reducing congestion is warranted, doing so will inevitably require some reduction in opportunity.

The Plan also provides in-depth information regarding collection of mule deer demographic and survival data, how those data are utilized to assess population abundance and trends. and how that information is ultimately used to manage harvest. The previous Mule Deer Management Plan (IDFG 2008) directed IDFG to implement a monitoring program to provide annual estimates of population abundance with less reliance on annual aerial surveys. The Department has implemented a new monitoring protocol and developed an integrated population model (IPM) that utilizes periodic population and demographic estimates, harvest data, over-winter fawn survival, and annual adult female survival to model population abundance each year.



Idaho Mule Deer Management Plan 2020-2025



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What is a Management Plan?

Strategic Plan objective	Mule deer management direction
Maintain or improve game populations to meet demand for hunting, fishing, and trapping	When DAUs are meeting objectives, manage populations to maximize hunting opportunity, reproductive performance, and overall herd health commensurate with habitat capabilities When DAUs are below objectives, implement management strategies to promote maximum population growth
Eliminate the impacts of fish and wildlife diseases on fish and wildlife populations, livestock, and humans	Minimize the influence of disease as a limiting factor in mule deer populations Continue to implement a robust monitoring protocol for CWD Continue to implement disease surveillance for diseases of concern for mule deer
Provide a diversity of mule deer hunting opportunities	Assess participation, demand, and satisfaction with mule deer hunting; adjust management to achieve objectives Provide a diversity of hunting opportunities, including socially desirable and biologically sustainable levels of antlerless and mature buck opportunity Provide annual mule deer hunting opportunities
Improve citizen involvement in the decision-making process	Increase breadth of participation in mule deer management decisions by targeting opinions of a random sample of hunters for substantial decisions Explore strategies to include hunters or interested publics in biological studies or management activities (e.g., CWD surveillance, volunteer opportunities, habitat projects, etc.)







Prepared by IDAHO DEPARTMENT OF FISH AND GAME December 2019



- Most recent mule deer hunter survey was 2017. New version coming, likely next year.
 - Surveys developed with sociologists to understand hunter preferences
 - Sent to 30,000 individuals between hard copy and email.
 - 6,800 responses from across Idaho.
 - Potential respondents are stratified by region of Idaho and randomly selected to provide statistically meaningful results



Mule Deer Hunting in Idaho: Understanding the needs and experiences of hunters

What did we learn?

- Average respondent had 26 years of mule deer hunting experience
- 64% of hunters had only hunted mule deer with a rifle in the last 5 years
- Top reasons for hunting mule deer:
 - Be close to nature
 - Bring back pleasant memories
 - View the scenery
 - Be with friends and family



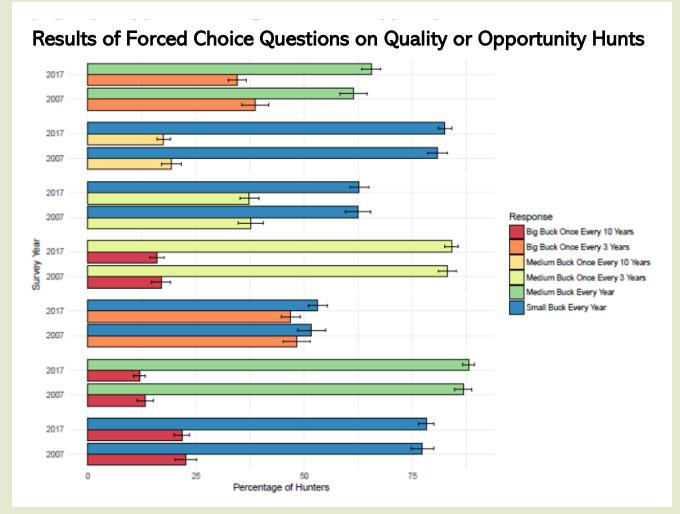
Idaho Mule Deer Hunter Survey 2017 Summary of Statewide Results

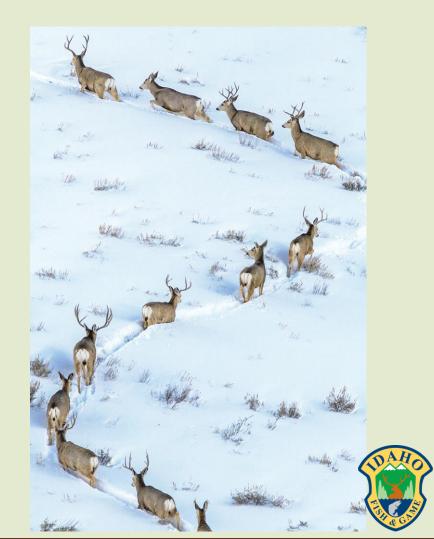
- Large mule deer bucks were the most desirable deer to harvest
- 78% of respondents favored antlerless hunts to provide youth opportunity
- Top considerations for where to hunt:
 - Access to public lands
 - Ability to hunt every year
 - Best chance to harvest
 - Opportunity to also hunt elk
 - Area I am familiar with



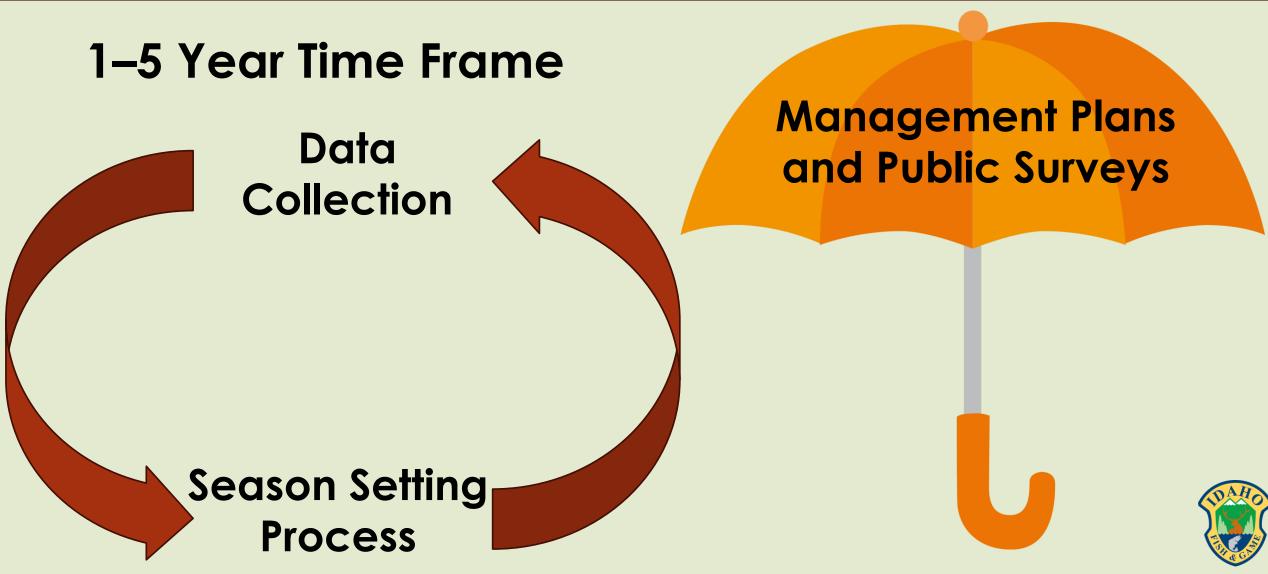
Idaho Mule Deer Hunter Survey 2017 Summary of Statewide Results

Mule deer





What Does this look like in Practice?



Season Setting Process

What is Season Setting?

CALENDAR



- Deciding what, when, where, how and who will be involved in a hunt.
- What's hunted Bag limit and type of animal
- When it's hunted Season timing & length
- Where it's hunted Hunt area by unit or elk zone
- How it's hunted Weapon type
- Who's hunting Adult, youth.







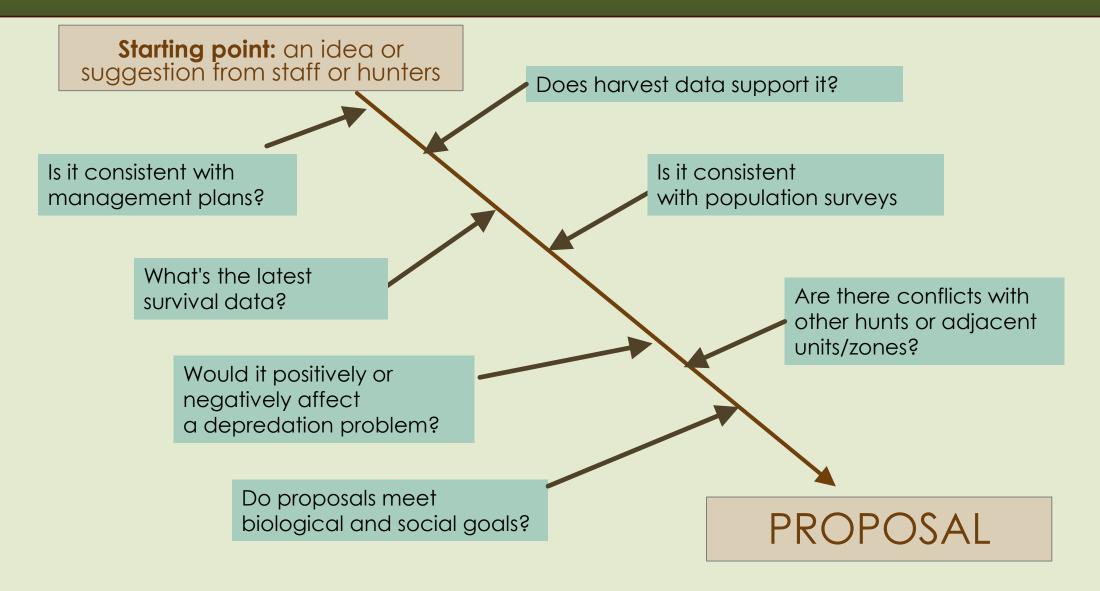
Season Setting Process

How are seasons set?

- 1. Identify issues & ideas about the upcoming hunting season
- 2. Filter those "brainstormed" ideas down to draft proposals
- 3. Gather comments from hunters about the draft proposals
- 4. Modify proposals accordingly after the public comment period
- 5. Present modified proposals to Idaho Fish and Game Commission
- 6. Commission makes final decision on seasons in March



Season Setting Process



Harvest Management

At its core, harvest management is a tug a war between quality and opportunity

- What makes Harvest Management easy?
 - Lots of deer, few people, few predators, or no agriculture
- What makes Harvest Management difficult?
 - Flipped supply/demand, conflicts, or competing interests



Costs and Benefits

- What is the cost of reducing opportunity?
 - Where do the hunters go who are displaced by reduced opportunity or do they stop hunting all together?
 - Less than 5% of the U.S. population are hunters, and less than 16% in Idaho, do we want hunters to have a smaller voice?
- What are the benefits of reducing opportunity?
 - Less perceived crowding
 - Reduced harvest after a mortality event



Costs and Benefits

- What is the cost of maintaining opportunity?
 - Frustrated/unsuccessful hunters



- What are the benefits of maintaining opportunity?
 - People still get to go hunt

How do we maintain opportunity but still improve the experiences that hunters are having?

To Summarize

- We manage deer with harvest for a variety of biological and social outcomes supported by science and public survey
- At its core, social harvest management is a struggle between opportunity and quality management
- Public survey strongly suggest that Idahoans want to be able to hunt every year
- Altering opportunity always has a cost that should be evaluated on a case-by-case basis



In Conclusion – What Now?

- There often isn't a right or wrong answer
 - Execute mission and consider public preferences
- Consider short and long-term effects of each harvest management decision. Long-term impacts are probably more important
- Experiences matter





QUESTIONS?



