

Idaho Department of Fish and Game's Hunting and Advanced Technology Working Group Recommendations

Preamble

Idaho Department of Fish and Game convened the Hunting and Advanced Technology (HAT) Working Group to “assess public perspectives on what is and is not considered “fair” technology to use in the pursuit of game and develop recommendations to the Commission that strike an appropriate balance between the use of hunting technology and fair chase ethic.” The Charter stated that the HAT Working Group should reach full consensus before moving recommendations forward to the Commission for consideration. In addition, the Charter outlined five sideboards for the Working Group:

- Recommendations must be within the authority of the Commission.
- The scope of work will be limited to deer, elk, pronghorn, moose, mountain goat, and bighorn sheep.
- Recommendations must align with management objectives as identified in species management plans.
- Recommendations must be enforceable.
- The Commission will make the ultimate decision on the recommendations brought forth by the Working Group.

A copy of the Working Group's charter, which was signed by all members of the Working Group, is attached.

In response to an announcement about plans for the HAT Working Group, IDFG received over 750 applications to serve as members of the Working Group. Selections were made with a goal of covering a spectrum of interests, including traditional archers, competitive long-range shooters, houndsmen, trappers, deer and elk hunters, bear baiters, wolverine hunters and more, all with varying perspectives and stances on what is and is not "fair" in the pursuit of big game.

Members of the Working Group included: Derick Attebury, Matt Borg, Jason Carr, Jeff Choules, Ken Crane, Dillon Halverson, Tim Frost, Nathan Guy, Larry Hatter, Halli Hemingway, Kimberly Johnson, Jeremiah Mani, Alex Martin, Chelsea Merriman, Bryce Oldemeyer, Kevin Rogers, Tal Sampson, Jeff Shinn, Nicole Swafford, Doug Talbot, Rob Thornberry, Jason Topp, and Dustin Webster. Public information about the Working Group, including the bios of all members can be found on a webpage about the Working Group at: <https://idfg.idaho.gov/hat-working-group>.

The Working Group met a total of eight times: November 2, November 11, and December 2, 2024 and January 4, January 27, February 17, March 10, and March 22, 2025. Three meetings were held in person and five were held online. Recordings of all meetings are available on the Working Group's webpage. Ellary TuckerWilliams, IDFG Legislative and

Community Engagement Coordinator, provided staff support for Working Group meetings. Wendy Green Lowe of P2 Solutions served as the facilitator.

To support the Working Group's deliberations, IDFG conducted a survey that was sent to a random sample of approximately 15,000 Idaho residents who had purchased a license or tag to hunt big game over the past 3-5 years. The survey was sent to a stratified sample of hunters in all seven regions of the state. The purpose of the survey was to give the Hunting and Advanced Technology Working Group insight into the hunting population of Idaho's opinions about the topics under consideration by the Working Group. The survey was conducted between December 3 and December 22, 2024. Ellary Tucker Williams presented summary findings of the survey during the January 4, 2025 meeting. A 17-page summary of the results of the survey was provided and is also available on the Working Groups webpage.

In addition, IDFG provided an opportunity for the public to submit comments relevant to the Working Group's deliberations. A summary of comments as well as a spreadsheet of all comments received was provided to the Working Group in advance of each of their meetings starting with November 11, 2024 meeting.

Informational presentations were provided to the Working Group by

- Gordon R. Batcheller, Association of Fish and Wildlife Agencies
- Toby Boudreau, IDFG Statewide Deer and Elk Coordinator
- Nephi Cole, the National Shooting Sports Foundation
- Dan Forster, the Archery Trade Association
- Scott Lavin, Arizona Game and Fish Department
- Kyle Lehr, Director of Big Game Records, Boone and Crockett Club
- Sergeant Gabe Patterson, Utah Division of Wildlife Resources
- Meghan Roos, IDFG Senior Conservation Officer
- Justin Spring, Executive Director, Pope and Young Club
- Abram Summerfield, EOTECH
- Tony Wasley, President, Wildlife Management Institute
- Greg Wooten, IDFG Bureau Chief of Enforcement
- Jon Zinnel, The Kinetic Group

Slides of all presentations were provided to all Working Group members following each meeting.

Numerous other documents were provided to the Working Group over the course of its work, including in chronological order:

November 2, 2024 meeting:

- IDAPA 13 – Idaho Department of Fish And Game Wildlife Bureau 13.01.08 – Rules Governing Taking of Big Game Animals
- Idaho Open Meetings Law

- Association of Fish and Wildlife Agencies Hunting and Fishing Technology White Paper
- Utah Division of Wildlife Resources Technology Committee Summary

November 11, 2024 meeting:

- Idaho 2023 Bowhunting Regulations prepared by the Archery Trade Association
- Summary Findings of the Bowhunting Equipment Regulation Complexities in the United States, prepared by the Archery Trade Association

December 2, 2024 meeting:

- Boone and Crockett Club Fair Chase Discussion Paper

January 4, 2025 Meeting:

- Topline Report on the Public Survey prepared by Kenneth E. Wallen, Ph.D., University of Idaho College of Natural Resources Department of Natural Resources and Society

All documents provided are attached for reference.

In addition, links were provided to Working Group members for other reference materials of potential interest, including:

Human Dimensions Research

- [Americans' Attitudes Towards Hunting, Fishing, Shooting, and Trapping](#)
- [American Wildlife Values](#)

Boone and Crockett Club Supplemental Information

- Position Statement on Fair Chase: <https://www.boone-crockett.org/bc-position-statement-fair-chase>
- Position Statement on Long Range Shooting: <https://www.boone-crockett.org/bc-position-statement-long-range-shooting>
- Position Statement on Technology and Hunting: <https://www.boone-crockett.org/bc-position-statement-technology-and-hunting>
- Remarks from Wyoming Sportsman Conservation Panel: <https://www.boone-crockett.org/boone-and-crockett-club-leads-fair-chase-wyoming-sportsman-conservation-panel>

To support the development of their draft recommendations, the Working Group members developed five principles for their work together, as follows:

1. **Fair Chase Ethic.** *Fair Chase is the ethical, sportsmanlike, and legal pursuit and harvesting of any free-ranging wild game animal in a manner that does not give the hunter an improper or unfair advantage over the animal. As with any guideline, it is still rooted in personal ethics.*
2. **Hunting Opportunity/Idaho Hunting Heritage.** *Will this recommendation maintain our hunting opportunity and preserve our heritage and traditions into the future?*

3. **Perception that recommendations are reasonable.** *Four questions to ask ourselves: 1) Is the recommendation supported by the best available science? 2) Is the recommendation enforceable? 3) Does the recommendation align with public input? 4) Does the recommendation place an undue burden on the hunting public or provide advantage to one group over another?*
4. **Ongoing need to address advancements in technology.** *We recommend that IDFG consider two questions to support the evaluation of new technologies: 1) Does the technology significantly override or disrupt an animal's ability to rely on its natural instincts, defenses, and survival strategies? 2) Does the technology lead to unsustainable harvest rates that jeopardize the health or viability of big game populations or IDFG's species management goals? A yes in response to either of these questions should indicate a need for thoughtful evidence-based research and/or review of the potential objective impacts of that technology on big game animals.*
5. **Perception that the Working Group represents all Idaho hunters.** *Two questions to ask ourselves: 1) Does each recommendation accurately reflect the data from the statewide survey, public comments, and our collective knowledge and experience? 2) Have we worked to develop unbiased opinions and reach a well-informed consensus, guided by the input from hunters across Idaho, with the goal of maximizing opportunities throughout the state?*

The principles were approved by consensus during the March 10, 2025 meeting.

In consideration of their principles, all information available to them, and discussions among members, the Hunting and Advanced Technology Working Group developed and considered numerous draft recommendations. Those that were approved by consensus follow as well as several that the Working Group wanted to pass along to the Commission for further consideration.

Consensus Recommendation Package

The following recommendations were by approved consensus by the Working Group Members in attendance at the March 22, 2025 meeting.

Principles for Evaluating Technology Advancements in the Future

The following guiding principles were used during development of the HAT Working Group's recommendations. These principles and definitions were unanimously supported by all members of the HAT Working Group. The HAT Working Group recommends that the IDFG Commission adopt similar principles to inform future consideration of advancements in technology.

- Fair Chase Ethic
- Hunting Opportunity/Idaho Hunting Heritage
- Regulations that will be perceived as reasonable
- Ongoing need to address advancements in technology
- Regulations attempt to represent the best interests of all Idaho hunters.

Drones

The HAT Working Group recommends that it be unlawful for any person to use any aircraft (including drones, helicopter, and fixed-wing aircraft) to spot, locate, or aid in the taking of any big game ungulates from July 1 through December 31 or dates as determined most appropriate by the Commission.

Smart Optics

The HAT Working Group recommends that the current regulations related to smart optics be kept in place. Under current regulations, smart optics are unlawful when attached to or incorporated into a firearm while scopes with battery powered or tritium lighted reticles are allowed.

Muzzleloader Technology

The Hat Working Group recommends maintaining the current muzzleloader regulations for Muzzleloader-Only Seasons.

Short Range Weapons

The HAT Working Group recommends that the Commission consider the weapons allowed in short range seasons and whether they align with the intent of short range hunting seasons.

Education

To promote ethical hunting practices and fair chase principles, the HAT Working Group recommends the IDFG increase education and outreach efforts. Potential strategies include:

- Updating hunter safety courses with a stronger emphasis on ethics, possibly incorporating more in-person instruction
- Launching a social media campaign focused on ethical hunting and responsible decision-making
- Expanding outreach on wildlife management to improve public understanding
- Strengthening engagement with hunting stakeholder groups to promote ethical hunting values
- Exploring other states outreach and education model (such as Arizona) as a potential framework
- Improving public perception of hunting by emphasizing ethical practices and responsible stewardship.

Transportation

The HAT Working Group recommends that access policies be balanced to provide hunting opportunity mindful of wildlife conservation to promote fair chase and sustainable hunting through strategic management.

Artificial Intelligence

At this time, the HAT Working Group does not have any formal recommendations for restricting the use of AI technologies in hunting. However, the Working Group strongly advises the Commission to closely monitor the rapidly evolving application of AI within the hunting community. As AI technologies continue to advance, new tools and techniques may emerge that could significantly impact hunting ethics and the principles outlined by the HAT Working Group. Maintaining a vigilant and adaptable approach will be critical to preserving Idaho's hunting traditions and ensuring alignment with wildlife management goals.

Modern Archery Optics

The HAT Working Group recommends keeping current archery equipment regulations.

Other Draft Recommendations Considered by the Working Group

The Hunting and Advanced Technology Working Group considered the following draft recommendations but were not able to reach consensus to support them during the final meeting on March 22, 2025. It is important to note this language was not approved by consensus.

Night Vision

The HAT Working Group recommends that it be unlawful to use night vision technology, mounted as well as handheld equipment, for scouting, hunting, or retrieving big game ungulates from July 1 through December 31 or dates as deemed most appropriate by the Commission.

Thermal Imaging Optics

The HAT Working Group recommends that it be unlawful to use thermal imaging technology for scouting, hunting, and retrieving big game ungulates from July 1 through December 31 or dates as determined most appropriate by the Commission.

Transmitting Trail Cameras

For the purposes of hunting and scouting for big game ungulates, the HAT Working Group recommends that it be unlawful to use transmitting trail cameras from July 1 through December 31 or dates as determined most appropriate by the Commission, on public or public access property.

HAT Working Group Public Feedback Form
 Public Feedback Summary
 3/17/2025

Summary Data

- 267 comments received as of 3/17/2025 at 9am
- 257 comments were from Idaho residents
- 10 out of state comments (4 WA, 2 MT, 1 CA, 1 OR, 1 WY, 1 OK)
- In summation of the comments received as of 3/17/2025 at 9am, IDFG has received 267 comments from unique commentors through the Hunting and Technology Public Feedback Form. Multiple comments from the same individual were combined into a single comment. A form letter that opposed thermal imaging, drones, and cellular trail cameras from 8 unique commentors were included as individual comments in the feedback counts. Comments received that were blank were deleted. It is important to note that public feedback comments reflect the opinions of a self-selected group of hunters rather than an unbiased, representative sample of the general hunting population.

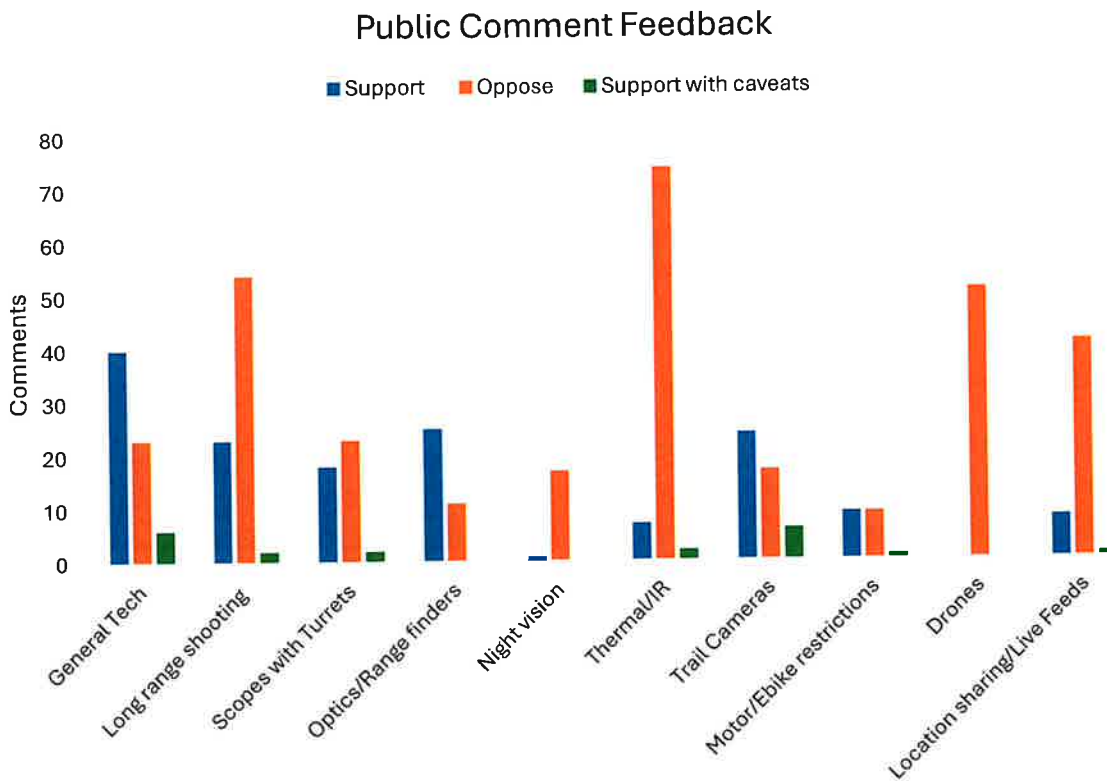


Figure 1. A summation of common feedback topics and their support or opposition.

Some commentators voiced a broad statement of support for hunting technology and less restrictions on hunters (40), while others voiced opposition (23), or support with some caveats (6). It is worth noting that commentators that were opposed advanced technologies often gave more directed responses that included specific restrictions or opposition for a specific technology. Hunter support or opposition widely varies between specific technologies, though some topics have strong support for more restrictions.

Long range shooting and optics

The idea of placing restrictions on long range shooting through limits on scopes and optics is one of the more divisive topics for Idaho hunters. Commentors would often provide multiple remarks on long range shooting and optics, including scopes and range finders, within the same comment. Broader comments about optics and range finders are supportive (25), rather than opposing (11). Technology for long range shooting leans towards opposition (54) rather than support (23) or support with caveats (2). There is a more even split between scopes and scopes with turrets, with 18 comments supporting, 2 comments supporting with caveats, and 23 comments opposing.

Proponents say that long range shooting and optic technology can provide a more ethical hunt and can aid disabled hunters, while opponents say that it does not provide fair chase and can lead to shots that are more likely to injure or lose the animal. Many opponents to long range shooting would like to see some level of distance restriction enforced, limit the range of scopes and remove turrets, and reduce the amount of technology allowed on range finders. Some opponents point out that enforcing an ethical shot or harvest would be difficult, and some hunters will shoot further than an ethical range whether they are allowed advanced technology or not. Both opponents and supporters would like to see more hunter education on ethical shooting, so hunters are less likely to injure and lose the animal.

Thermal/infrared (IR) and night vision

There is strong opposition to using thermal/IR and night vision technologies among hunters. Opponents of night vision specifically (17) often comment that it does not give the animal a chance to rest. Opponents of thermal/IR (74) argue that it does not give fair chase to the animal. Proponents of thermal/IR (7) often provide additional caveats that it should only be used during the day, or specifically for predator management. Others would like to see thermal technology allowed during certain seasons. Comments in support of Thermal/IR imaging are often specific to the recovery of the animal, rather than using it as an aid during hunting, though opponents point out that this would make enforcement more difficult.

Drones

There is strong opposition to drone technology (51). Comments similarly argue that it does not give fair chase, and the current rules are difficult to enforce. There is also some confusion among hunters about drone use, many considering it currently illegal, and further clarification might be needed. There are anecdotes of hunting groups being able to have one party member not actively hunting while running drones and relaying live information to hunters within their party, which is difficult to catch and enforce. Other commentators say that the ability to scout the day beforehand still gives too much advantage to the hunter. Some opponents welcomed any further changes in the rules that would make the restrictions on drones more enforceable. There were no comments in support of drones.

Trail cameras, live feeds, and location sharing

Comments regarding trail cameras were relatively split (24 support, 17 oppose, and 6 support with caveats). Supporters often cite the ability to identify and target species and landowners being able to monitor their property and trespassers. There were also concerns about the ability to identify bear species to ensure a safe hunt. Opponents are often concerned with the ability to “couch hunt,” and suggest modifications to trail camera rules including their removal during active hunting seasons. There is much stronger opposition to live feeds or “cell cams,” that relay live information to hunters, or any social media or tech that might share location data (41 oppose, 8 support, 1 support with caveats). The concern is that it gives an unfair advantage to hunters and allows no fair chase, and a perception that trail cams can indicate that hunters in the area and might deter other hunters from public lands. There were also some concerns that social media was being used to share real time information about hunting locations and animals and incentivize large concentrations of hunters in popular areas. Comments suggest removing live/cell cameras while leaving trail cameras that require active retrieval of the data (e.g. SIM cards).

Motorized Vehicles/Ebike restrictions

Comments were generally split between motorized vehicles and Ebike restrictions (9 support, 1 support with caveats, 9 oppose). Supporters of restrictions cite how Ebikes, ATVs, and UTVs can allow much greater hunter range and access than traditional hunting methods, while opponents say this can provide access for hunters that are disabled or have mobility issues. Some supporters would like to see less access sites for Ebikes and motorized vehicles.

Other Comments

Some commentors would like to see more transparency from the HAT Working Group, including meeting notes/minutes and publishing the meetings online in some format. IDFG has and will continue to post video recordings of the meetings and written minutes to the Hunting and Advanced Technology webpage on the IDFG website.

Comments received that are not germane to the charter of the HAT Working Group included:

- Season setting and rules, including adjusting the length and timing of seasons, adding hunting seasons with different restrictions, or antler point restrictions (43 comments)
- Predator management, particularly wolves (23). Some commentors specified that any technology restrictions should not apply to wolf management. Restricting certain technologies for specific hunts could be a topic of discussion.
- Tag sales, including limiting the number of tags within specific units or for non-resident hunting, or increasing the number of hunts with technology restrictions (27)
- HAT Working Group structure, membership, and selection processes (10)
- Non-resident hunting (7)

*Topline Report
December 2024*

HUNTING & ADVANCED TECHNOLOGY

Topline Report of Statewide
Survey 2024

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Executive Summary

The goal of the 2024 HAT Survey was to provide the Hunting and Advanced Technology (HAT) Working Group with an assessment of how Idaho hunters view fair chase and hunting technology to inform their discussions in these respects. Specifically, the 2024 HAT Survey was designed to answer the following questions:

1. To what extent do Idaho big game hunters consider "fair chase" important and agree with its tenets?
2. To what extent do Idaho big game hunters support the use of advanced modern technology to harvest big game?
3. To what extent do Idaho big game hunters agree that the use of advanced modern technology to harvest big game aligns with fair chase tenets?
4. To what extent do Idaho big game hunters support hypothetical strategies to address emerging management issues associated with the use of advanced modern technology to harvest big game?

To achieve that goal and answer these questions, a standard public opinion sample survey was employed as the most appropriate and optimal research strategy. In general, a sample survey estimates the distribution of characteristics in a defined population with knowable precision. In other words, our goal is to simply ask people questions relevant to the HAT Working Group's mandate by contacting a suitable number of people (>384) from a defined population (Idaho resident big game license/tag holders from the past 3-5 years) to obtain information (related to fair chase, hunting technology, and the relationship between the two) in an empirical, systematic, standard, replicable, and defensible way (via established survey design and questionnaire method) to estimate how that information is distributed with knowable precision in the defined population.

Methods

Participants and Sampling

The target population of the 2024 HAT Survey was Idaho resident big game license/tag holders from the past 3-5 years (deer, elk, moose, pronghorn, bighorn sheep, and mountain goat). Given it is infeasible to gather information from every member of the target population, we draw a sample from that population and generalize the findings back to the population via statistical analysis. Sampling is a process to select a subset of individuals from within a target population to estimate characteristics of the whole population with knowable precision.

For the 2024 HAT Survey, our sample was selected using a probability-based sampling procedure from a sample frame of Idaho resident big game license/tag holders obtained from the IDFG license database. Contact information for all individuals who met the following criteria was used to create the sample frame:

- Purchased any deer, elk, wolf, bear, or lion tag in 2022, 2023, or 2024 or applied for a moose, sheep, goat or pronghorn controlled hunt in 2022, 2023, or 2024.
- Not deceased.
- Idaho residents.
- IDFG region of residence.
- Email address in the database.
- Over 18 at the time of the sample draw.

Next, individuals meeting these criteria were divided into two groups:

1. Ungulate hunters only: Individuals who only purchased or applied for ungulate tags/hunts.
2. Ungulate and/or predator hunters: Individuals that purchased predator tags (regardless of whether they purchased/applied for ungulate tags/hunts).

Duplicate sportsman IDs were removed, leaving a total population of 153,695 individuals. The ungulate-only group included 90,030 individuals (59%) and the ungulate and/or predator group included 63,665 individuals (41%).

To create the sample, a disproportional stratification procedure was used based on region of residence and purchased of predator tags. For each region, 2,200 individuals were randomly selected based on a predetermined 60% ungulate-only hunters (1320) and 40% hunters with predator tags (880) proportion. The table below provides the total population that met the criteria in each region, the sample size, and the proportion of the population that was sampled for each region.

Table 1. Distribution of the target population and sample among regions and tag types.

Strata	N	Population proportion	n	Sample proportion	Sample probability
1_predator	13072	0.09	880	0.06	0.07
1_ungulate only	12164	0.08	1320	0.09	0.11
2_predator	7012	0.05	880	0.06	0.13
2_ungulate only	6739	0.04	1320	0.09	0.2
3_predator	23535	0.15	880	0.06	0.04
3_ungulate only	32857	0.21	1320	0.09	0.04
4_predator	5556	0.04	880	0.06	0.16
4_ungulate only	12963	0.08	1320	0.09	0.1
5_predator	5692	0.04	880	0.06	0.15
5_ungulate only	11906	0.08	1320	0.09	0.11
6_predator	7062	0.05	880	0.06	0.12
6_ungulate only	11725	0.08	1320	0.09	0.11
7_predator	1706	0.01	880	0.06	0.52
7_ungulate only	1531	0.01	1320	0.09	0.86

Materials and Procedure

The questionnaire (survey instrument) is presented in Appendix 1. The questionnaire primarily focused on: (1) general big game hunting practice, (2) opinions on fair chase, (3) opinions on advanced technology, and (4) opinions on hypothetical management responses.

Implementation of the 2024 HAT Survey began on 3 December 2024 and closed on 22 December 2024. Participants were contacted via email to complete the survey via a GovDelivery email sponsored by IDFG on 3 December and reminders were sent to participants with incomplete questionnaires on two subsequent occasions.

Analysis

The results presented in the topline report are standard analyses of frequency and descriptive statistics for each question and associated items within the survey instrument. All analyses were conducted in IBM SPSS Statistics 29.0. Two important considerations when reviewing and interpreting sample survey results are margin of sampling error and sample weights.

Margin of sampling error (MOE) refers to the statistical difference between survey results (the sample) and population estimates. In other words, the MOE is an indicator of how accurately the survey results can be interpreted to reflect the views of the overall population. Low margin of sampling error is one indicator of rigor and confidence (e.g., a $\pm 3\%$ margin of sampling error at a 95% confidence level means that if the HAT survey were administered 100 times, we can expect the results to be within 3% of the true value 95 of those times). An acceptable margin of sampling error by most survey research standards is $<4\text{-}8\%$ at a 95% confidence level.

In addition, data were weighted using iterative proportional fitting (commonly referred to as "raking"), which is the most prevalent method for weighting public opinion surveys, to infer the distribution of characteristics within the target population from the sample of respondents. The demographic variables age and sex were used to weight the sample to better reflect the population.

Findings

A total of 2,170 responses were analyzed, which provides a $\pm 2\%$ margin of sampling error for the 2024 HAT Survey. Please note that the results presented below are weighted results and should be interpreted as statistical estimates that reflect the target population plus/minus the margin of sampling error.

Over 90% of hunters indicate they hunt elk and deer in Idaho and rank these two species as the most frequently targeted big game species in Idaho. Additionally, 75% of hunters consider themselves to be primarily rifle hunters when they big game hunt in Idaho.

To what extent do Idaho big game hunters consider "fair chase" important and agree with its tenets?

Overall, findings indicate a majority Idaho big game hunters consider fair chase to be an important hunting ethic that all hunters adhere to (i.e., 51% of respondents consider it extremely important and 35% very important). Additionally, over 90% of hunters agree or strongly agree with each of the six specific fair chase ethics defined by the Boone and Crockett Club.

To what extent do Idaho big game hunters support the use of advanced modern technology to harvest big game?

In terms of advanced modern technology to harvest big game, Idaho hunters report the least amount of support for transmitting trail cameras, modern muzzleloader technology, smart optics, modern night vision/thermal rifle scopes, thermal imaging optics, artificial intelligence for animal identification, and drones.

To what extent do Idaho big game hunters agree that the use of advanced modern technology to harvest big game aligns with fair chase tenets?

Less than half of hunters agree that the following advanced modern technology aligned with the tenets of fair chase: modern muzzleloader technology, smart optics, modern night vision/thermal rifle scopes, thermal imaging optics, artificial intelligence for animal identification, and drones.

To what extent do Idaho big game hunters support hypothetical strategies to address emerging management issues associated with the use of advanced modern technology to harvest big game?

In general, parity was observed across all response categories (not at all concerned – extremely concerned) in terms of the amount of concern hunters express for advanced hunting technology leading to decreased hunting opportunities in the future due to increased hunter harvest rates.

In terms of support for hypothetical strategies to address emerging management issues associated with the use of advanced modern technology, a majority of hunters support the maintenance of existing (1) season lengths and (2) existing tag numbers with current equipment restrictions in the field.

Results (weighted)

General

	Q1. Which big game species to you hunt in Idaho? (Select all that apply)	
	Percent	Percent (Total)
Deer	28%	96%
Elk	28%	94%
Black bear	13%	43%
Wolf	12%	40%
Pronghorn	11%	36%
Mountain lion	8%	28%

	Q2. Please rank the big game species you selected in order from those you hunt most to least frequently in Idaho.	
	Rank	Rank (Count)
Elk	1	519364
Deer	2	507936
Black bear	3	204116
Pronghorn	4	138318
Wolf	5	128939
Mountain lion	6	88668

	Q3. In terms of big game hunting in Idaho, do you primarily consider yourself an archery, muzzleloader, or rifle hunter?		
	Rifle	Archery	Muzzleloader
Percent	75%	22%	3%

Fair Chase

**The principle of fair chase, as defined by the Boone and Crockett Club, is "the ethical, sportsmanlike, and lawful pursuit and taking of any free-ranging wild game animal in a manner that does not give the hunter an improper or unfair advantage over the game animals."*

Q4. Based on this definition of fair chase, as a big game hunter in Idaho, how important is it to you that hunters adhere to the principle of fair chase?						
	Not at all important	Slightly important	Moderately important	Very important	Extremely important	No opinion
Percent	1%	3%	10%	35%	51%	1%

Note: No opinion analyzed separately.

Q5. To what extent do you disagree or agree with each of these hunter ethics?							
<i>"Hunters should..."</i>	Disagreement Total	Agreement Total	Strongly disagree	Disagree	Agree	Strongly agree	No opinion
Exercise a personal code of behavior that reflects favorably on your abilities and sensibilities as a hunter	4%	96%	4%	0%	24%	72%	1%
Behave in a way that will bring no dishonor to either the hunter, the hunted, or the environment	4%	96%	4%	0%	20%	75%	4%
Attain and maintain the skills necessary to make the kill as certain and quick as possible	5%	95%	5%	0%	14%	81%	1%
Obey all applicable laws and regulations	5%	95%	5%	0%	20%	75%	1%
Recognize that these tenets are intended to enhance the hunter's experience of the relationship between predator and prey, which is one of the most fundamental relationships of humans and their environment	6%	94%	4%	2%	37%	57%	1%
Respect the customs of the locale where the hunting occurs	8%	92%	4%	4%	37%	55%	4%

Note: No opinion analyzed separately.

Advanced Technology

	Q6. To what extent do you disagree or agree that each of the following technologies are in alignment with fair chase ethic?						
	Disagreement Total	Agreement Total	Strongly disagree	Disagree	Agree	Strongly agree	No opinion
Modern mapping technology	6%	94%	4%	3%	36%	57%	3%
Modern optics	7%	93%	3%	4%	49%	44%	3%
Modern bow technology	13%	87%	5%	8%	50%	37%	10%
Modern firearm optics	18%	82%	7%	11%	48%	34%	4%
Rangefinders >1000 yards	27%	73%	13%	14%	41%	32%	7%
Transportation	32%	68%	15%	18%	43%	25%	4%
Modern crossbow technology	32%	68%	16%	17%	47%	20%	15%
Rifle scopes with built-in range finders	36%	64%	16%	20%	42%	23%	6%
Modern rifle cartridges capable of killing game at long range	36%	64%	16%	20%	39%	26%	6%
Modern archery optics	42%	58%	18%	24%	37%	21%	9%
Transmitting trail cameras	46%	54%	22%	24%	36%	18%	6%
Modern muzzleloader technology	49%	51%	24%	26%	31%	20%	10%
Smart optics	59%	41%	32%	27%	26%	14%	6%
Thermal imaging optics	76%	24%	50%	26%	16%	9%	4%
Modern night vision/thermal rifle scopes	76%	24%	50%	26%	15%	9%	4%
Artificial intelligence for animal identification	89%	11%	60%	29%	8%	3%	6%
Drones	90%	10%	68%	22%	7%	3%	2%

Note: No opinion analyzed separately.

	Q7. To what extent do you oppose or support the following available and marketed technologies used to hunt big game?						
	Oppose Total	Support Total	Strongly Oppose	Oppose	Support	Strongly support	No opinion
Modern mapping technology	6%	94%	2%	3%	40%	54%	3%
Modern optics	9%	91%	4%	5%	52%	39%	3%
Modern bow technology	14%	86%	6%	8%	54%	32%	10%
Modern firearm optics	18%	82%	7%	11%	48%	33%	4%
Rangefinders that read distances of greater than 1000 yards	27%	73%	13%	14%	42%	32%	7%
Transportation	31%	69%	15%	16%	43%	26%	4%
Modern rifle cartridges capable of killing game at long range	33%	67%	16%	17%	41%	27%	6%
Modern crossbow technology	35%	65%	16%	19%	49%	17%	17%
Rifle scopes with built-in range finders	40%	60%	18%	22%	41%	18%	6%
Modern archery optics	42%	58%	17%	25%	37%	21%	10%
Transmitting trail cameras	48%	52%	26%	23%	37%	15%	6%
Modern muzzleloader technology	50%	50%	24%	26%	32%	18%	9%
Smart optics	63%	37%	35%	29%	24%	13%	6%
Modern night vision/thermal rifle scopes	77%	23%	52%	25%	14%	9%	4%
Thermal imaging optics	78%	22%	52%	26%	13%	9%	4%
Artificial intelligence for animal identification	91%	9%	64%	27%	6%	3%	5%
Drones	91%	9%	69%	22%	6%	2%	3%

Note: No opinion analyzed separately.

	Q8. To what extent would you oppose or support the following hypothetical scenarios to manage increased hunter success rates associated with use of advanced hunting technology?						
	Oppose Total	Support Total	Strongly Oppose	Oppose	Support	Strongly support	No opinion
Maintain existing season lengths and current equipment restrictions in the field	20%	80%	5%	15%	55%	25%	3%
Maintain existing tag numbers and current equipment restrictions in the field	24%	76%	6%	18%	54%	23%	4%
Maintain existing season lengths and increase equipment restrictions in the field	49%	51%	16%	33%	36%	16%	4%
Maintain existing tag numbers and increase equipment restrictions in the field	52%	48%	17%	36%	33%	15%	4%
Reduce existing tag numbers and allow for more advanced technology in the field	84%	16%	48%	36%	11%	4%	2%
Shorten existing season length and allow for more advanced technology in the field	90%	10%	53%	37%	8%	2%	2%

Note: No opinion analyzed separately.

	Q9. To what extent are you concerned that advanced hunting technology may lead to decreased hunting opportunities in the future due to increased hunter harvest rates?					
	Not at all concerned	Slightly concerned	Moderately concerned	Very concerned	Extremely concerned	No opinion
Percent	13%	26%	22%	21%	19%	1%

Note: No opinion analyzed separately.

Demographics

Age	18-24	25-34	35-44	45-54	55-64	65-74	75+
Percent	12%	19%	20%	17%	15%	12%	5%

Note: Median (44.0), Mean (45.9)

Sex	Female	Male
Percent	23%	77%

Education	<High school	High school	2-yr degree	4-yr degree	Vocational	Graduate
Percent	1%	25%	17%	27%	12%	17%

Income	<\$20k	\$20-\$49k	\$50-\$74k	\$75-\$99k	\$100-\$149k	\$150-\$199k	>\$200k
Percent	1%	12%	19%	15%	29%	12%	10%

Region	Panhandle	Clearwater	Southwest	Magic Valley	Southeast	Upper Snake	Salmon
Percent	15%	14%	14%	13%	16%	15%	14%

Appendices

Appendix 1: Instrument

The goal of the Hunting and Advanced Technology (HAT) Survey is to assess how Idaho hunters view fair chase, hunting technology, and the relationship between the two to help inform discussions and direction of the Hunting and Advanced Technology Working Group.

Nationwide, state agencies are wrestling with balancing technology, hunter success, and wildlife management objectives, and Idaho is no different. If technological advances (both in capability and affordability) result in increased hunter success rates, agencies have few tools to ensure hunters do not overharvest game species and jeopardize their long-term sustainability.

Tools include:

- Equipment restrictions
- Changes to season timing and shortening of season length
- Reduction in number of tags
- Idaho Department of Fish and Game (IDFG) has traditionally managed game species with a focus on providing greater hunter opportunity, including a greater number of available tags and longer seasons. Some members of Idaho's hunting community have begun to express concerns related to advancement of hunting technology and potential erosion of fair chase ethic. IDFG also acknowledges other members of Idaho's outdoor sporting community do not share those same concerns.

Recognizing the varying opinions on the matter amongst Idaho's outdoor sporting community, the Idaho Fish and Game Commission (Commission) directed IDFG to organize and facilitate a working group to delve into the nuance of this complex issue. The purpose of the Hunting and Advanced Technology (HAT) Working Group is to assess public perspectives on what is and is not considered "fair" technology to use in the pursuit of big game and develop recommendations to the Commission that strike an appropriate balance between the use of hunting technology and fair chase ethic. Those recommendations would then be reviewed by the Commission and considered for implementation.

To help inform the HAT Working Group, IDFG will use survey results to better understand how Idaho big game hunters generally view advanced hunting technology, fair chase, and the relationship between the two. By participating in this survey, you can ensure that you have a voice in the process and are part of the discussion of the Hunting and Advanced Technology Working Group.

This survey is the first of several opportunities for individuals to provide input on hunting technology and fair chase. There will be additional opportunities for interested individuals to provide feedback later in the process. For more information, please visit IDFG's website.

**IDFG is not advocating for or against any of the technologies or scenarios described in this survey.*

Q1

Which big game species to you HUNT in Idaho? (Select all that apply).

Black bear

Deer
Elk
Mountain lion
Pronghorn
Wolf

Q2 [carry forward choices Q1]

Please **RANK** the big game species you selected in order from those you hunt most to least frequently in Idaho. Rank the most frequent first (#1) and least frequent last.

Black bear
Deer
Elk
Mountain lion
Pronghorn
Wolf

Q3

In terms of big game hunting in Idaho, do you primarily **CONSIDER** yourself an archery, muzzleloader, or rifle hunter?

Archery
Muzzleloader
Rifle
None

The next set of questions are related to fair chase principles and ethics. As state agencies begin to address hunting technology issues, it is essential the Department begin to assess big game hunters' perspectives on what is and is not considered "fair" and "ethical" technology to use in the pursuit of big game.

Q4

The principle of fair chase, as defined by the Boone and Crockett Club, is "the ethical, sportsmanlike, and lawful pursuit and taking of any free-ranging wild game animal in a manner that does not give the hunter an improper or unfair advantage over the game animals."

Based on this definition of fair chase, as a big game hunter in Idaho, how **IMPORTANT** is it to you that hunters adhere to the principle of fair chase?

Not at all important
Slightly important
Moderately important
Very important
Extremely important
No opinion

Q5

Fair chase is further described by the Boone and Crockett Club as being comprised of six “hunter ethics,” which are listed below.

To what extent do you DISAGREE or AGREE with each of these hunter ethics?

- Hunters should obey all applicable laws and regulations. (1)
- Hunters should respect the customs of the locale where the hunting occurs. (2)
- Hunters should exercise a personal code of behavior that reflects favorably on your abilities and sensibilities as a hunter. (3)
- Hunters should attain and maintain the skills necessary to make the kill as certain and quick as possible. (4)
- Hunters should behave in a way that will bring no dishonor to either the hunter, the hunted, or the environment. (5)
- Hunters should recognize that these tenets are intended to enhance the hunter's experience of the relationship between predator and prey, which is one of the most fundamental relationships of humans and their environment. (6)

- Strongly disagree
- Disagree
- Agree
- Strongly agree
- No opinion

The next set of questions relate to hunting technology. As state agencies wrestle with a balance between technology, hunter success, and wildlife management, it is essential the Department begin to understand Idaho big game hunters' opinions on currently available and marketed hunting technology.

Please note, IDFG is aware that some of the below listed technologies are currently illegal in Idaho; however, IDFG would like to know how hunters view these technologies, regardless of their current legal status.

Q6

To what extent do you DISAGREE or AGREE that each of the following technologies are in alignment with fair chase ethic?

- Smart optics (optics that automatically adjust scope based off data which is received from a smartphone app, smart rangefinder or binoculars) (1)
- Thermal imaging optics (optics that allow an individual to scan an area and single out living warm objects in dense cover, that would otherwise not be seen with the human eye) (2)
- Modern firearm optics (for example, scopes with improved power, clarity, durability, and accuracy that allow hunters to shoot at animals at further distances) (3)
- Rifle scopes with built-in range finders (4)
- Modern archery optics (for example, sights with sight tapes, range finding sights that automatically adjust the electronic sight for the actual target range) (5)
- Modern optics (for example, binoculars and spotting scopes with improved power, clarity, and durability that allow hunters to see animals at further distances, image

stabilizing binoculars that reduce unwanted shaking, and optics that reduce the heat mirage affect) (6)
 Modern bow technology (for example, reduced bow weight, improved cam design, improved cable and limb stops, built in torque-eliminating systems, and increased percent let-off) (7)
 Rangefinders that read distances of greater than 1000 yards (8)
 Modern rifle cartridges capable of killing game at long range (store bought ammunition that can harvest big game at distances of 800 yards or more) (9)
 Transportation (for example, ATV, UTV, side-by-sides, eBikes) (10)
 Drones (used while hunting and/or scouting) (11)
 Transmitting trail cameras (cellular and Wi-Fi) (12)
 Modern mapping technology (for example: IDFG Hunt Planner, onX, and HuntStand) (13)
 Modern muzzleloader technology (for example, advancements that allow muzzleloaders to shoot accurately at 400 yards or more, NitroFire and FireStick system, sabots, pelletized powder, and 209 primers) (14)
 Modern crossbow technology (for example, improvements that have made crossbows, lighter, stronger, and more durable, improved bolt speed with reduced draw weight, and cocking aids to make drawing the heavy string easier and more consistent) (15)
 Modern night vision/thermal rifle scopes (rifle scopes that are readily available to hunters on the market today that amplifies existing light, such as moonlight and starlight or their thermal signature) to create a visible image at night and accurately allow animals to be shot at night) (16)
 Artificial intelligence for animal identification (for example: AI that can identify hidden animals in the field or by sound signature) (17)

Strongly disagree
 Disagree
 Agree
 Strongly agree
 No opinion

Q7

To what extent do you OPPOSE or SUPPORT the following available and marketed technologies used to hunt big game?

Smart optics (optics that automatically adjust scope based off data which is received from a smartphone app, smart rangefinder or binoculars) (1)
 Thermal imaging optics (optics that allow an individual to scan an area and single out living warm objects in dense cover, that would otherwise not be seen with the human eye) (2)
 Modern firearm optics (for example, scopes with improved power, clarity, durability, and accuracy that allow hunters to shoot at animals at further distances) (3)
 Rifle scopes with built-in range finders (4)
 Modern archery optics (for example, sights with sight tapes, range finding sights that automatically adjust the electronic sight for the actual target range) (5)
 Modern optics (for example, binoculars and spotting scopes with improved power, clarity, and durability that allow hunters to see animals at further distances, image stabilizing binoculars that reduce unwanted shaking, and optics that reduce the heat mirage affect) (6)

Modern bow technology (for example, reduced bow weight, improved cam design, improved cable and limb stops, built in torque-eliminating systems, and increased percent let-off) (7)
Rangefinders that read distances of greater than 1000 yards (8)
Modern rifle cartridges capable of killing game at long range (store bought ammunition that can harvest big game at distances of 800 yards or more) (9)
Transportation (for example, ATV, UTV, side-by-sides, eBikes) (10)
Drones (used while hunting and/or scouting) (11)
Transmitting trail cameras (cellular and Wi-Fi) (12)
Modern mapping technology (for example: IDFG Hunt Planner, onX, and HuntStand) (13)
Modern muzzleloader technology (for example, advancements that allow muzzleloaders to shoot accurately at 400 yards or more, NitroFire and FireStick system, sabots, pelletized powder, and 209 primers) (14)
Modern crossbow technology (for example, improvements that have made crossbows, lighter, stronger, and more durable, improved bolt speed with reduced draw weight, and cocking aids to make drawing the heavy string easier and more consistent) (15)
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Artificial intelligence for animal identification (for example: AI that can identify hidden animals in the field or by sound signature) (17)

Strongly oppose
Oppose
Support
Strongly support
No opinion

IDFG's mission is to protect, preserve, perpetuate and manage Idaho's wildlife resources and provide continued supplies of such wildlife for hunting, fishing, and trapping.

If technological advances (both in capability and affordability) result in increased hunter success rates, IDFG will be left with only a few tools to ensure that hunters are not overharvesting game species and jeopardizing the long-term sustainability of game species.

Q8

To what extent would you OPPOSE or SUPPORT the following hypothetical scenarios to manage increased hunter success rates associated with use of advanced hunting technology?

Maintain existing season lengths and current equipment restrictions in the field (1)
Maintain existing tag numbers and current equipment restrictions in the field (2)
Shorten existing season length and allow for more advanced technology in the field (3)
Reduce existing tag numbers and allow for more advanced technology in the field (4)
Maintain existing season lengths and increase equipment restrictions in the field (5)
Maintain existing tag numbers and increase equipment restrictions in the field (6)

Strongly oppose
Oppose
Support
Strongly support
No opinion

Q9

To what extent are you CONCERNED that advanced hunting technology may lead to decreased hunting opportunities in the future due to increased hunter harvest rates?

Not at all concerned
Slightly concerned
Moderately concerned
Very concerned
Extremely concerned
No opinion

D1

What is the highest level of EDUCATION you have completed?

Less than high school
High school graduate
Two-year college degree
Four-year college degree
Vocational/trade school
Graduate/professional degree
Prefer not to answer

D2

What is your annual household INCOME?

Less than \$20,000
\$20,000 - \$49,999
\$50,000 - \$99,999
\$75,000 - \$99,999
\$100,000 - \$149,999
\$150,000 - \$199,999
Greater than \$200,000
Prefer not to answer

IDFG Chapter 8 – Taking of Big Game – Hunting Technology Pending Rules
 Negotiated Rule-Making Public Comment Summary
 03/04/2026

Overall Submission & Comment Totals:						
Total Number of Residents Submissions	2002					
Total Number of Non-Resident Submissions	268					
Total Number of Submissions	2270					
Total Number of Resident Comments	739					
Total Number of Non-Resident Comments	125					
Total Number of Comments	864					
Residents						
Technology:	Support	Support (%)	Oppose	Oppose (%)	No Position	No Position
Cell Camera Ban	459	23%	1508	75%	35	2%
Thermal Restrictions	695	35%	1267	63%	40	2%
Night Vision Restrictions	767	38%	1188	59%	47	2%
Aircraft Restrictions	1016	51%	952	48%	33	2%
Non-Residents						
Technology:	Support	Support (%)	Oppose	Oppose (%)	No Position	No Position
Cell Camera Ban	67	25%	172	64%	29	11%
Thermal Restrictions	92	34%	151	56%	25	9%
Night Vision Restrictions	102	38%	144	54%	22	8%
Aircraft Restrictions	91	34%	171	64%	6	2%



Other Management Influences and Challenges

Technology

Technological advances create unique challenges for wildlife managers, who must consider how those advances increase harvest rates and subsequently impact amounts of biologically sustainable hunting opportunity. For example, in contrast to rifle hunters (14% success), hunters using primitive weapons were historically constrained by limited effective range and greater skill requirements, which resulted in lower success rates (3% for archers and 6% for muzzleloader hunters, 1982 harvest data). Lower success rates for hunters using primitive weapons allow for more liberal seasons, both in terms of tag numbers and season length. More

modern hunting bows and muzzleloaders shoot faster, farther, and with greater accuracy than their predecessors, resulting in success rates nearly equal to rifle hunts in some elk zones of Idaho (Figure 5). This example, as well as other technological advances, raises questions about what constitutes a primitive weapon and how fair chase is defined.

The Commission regularly reviews the use of technology for hunting and collects public input when considering modifications or additions to regulations. The following list is representative of technological improvements managers and the Commission hear about related to elk harvest and overall hunting experience.

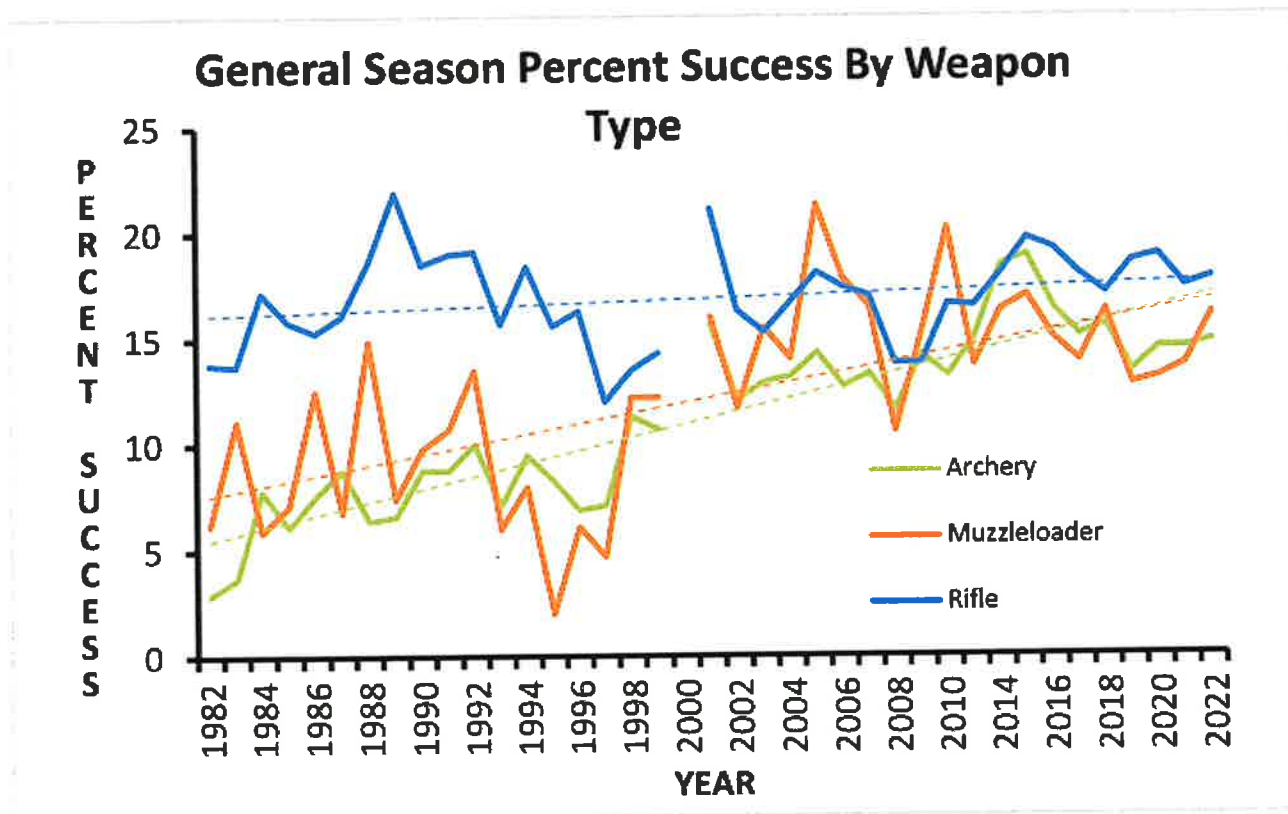


Figure 5. General season elk harvest success rates by weapon type, Idaho, 1982–2022.

- Hunting tools and equipment: range finders; high-tech scopes; ballistic calculators; thermal optics; weather and wind instruments; electronic tools used for mapping, navigation, and scouting; and trail cameras.
- Communication devices: 2-way radios, satellite phones, satellite message devices, and others.
- Improved methods of access: ATVS, UTVS, motorcycles, tracked machines, watercraft, and even aircraft have all undergone dramatic improvements over time, both in reliability and capability.
- Social media and sharing of information: ability to gather and share information has never been easier, and availability of information can potentially influence hunter numbers, harvest, and ultimately, hunter experience.

These advances offer some kind of advantage to hunters, which may impact harvest, hunter density, and ultimately, quality of hunting experiences. All of these factors influence types, length, and timing of seasons offered to elk hunters.

Hunting Access

Varying motorized access, terrain types, and landownership patterns across Idaho provide numerous elk hunting opportunities and experiences. Hunters can choose from front-country options where hunting can be found within easy driving distances from urban areas to more backcountry hunts, which require significant effort and planning to enter remote areas by foot, horseback, aircraft, or other means.

Idaho is fortunate to contain 53.4 million acres of public land, which provide wildlife habitat and hunting opportunity. Private lands throughout the state also provide high-quality habitat and support healthy elk populations. As previously discussed, elk distribution and abundance has

changed over time, with more elk interacting with private lands than ever before. Many landowners embrace public hunting on their property, whereas others allow very little or no hunting. Elk quickly adapt to different levels of hunting pressure on public and private lands, which can be challenging for wildlife managers who attempt to promote harvest opportunity and access for all hunters. The Department, private landowners, and hunters recognize the value of private lands for wildlife and hunting. The Department developed ways to provide meaningful hunting access through the Access YES! Program, the Large Tracts Program, and an agreement on State of Idaho Endowment Lands. Through these programs, approximately 3.6 million acres are accessible to Idaho hunters. The Department will continue to seek out innovative ways to promote public access for elk hunting.

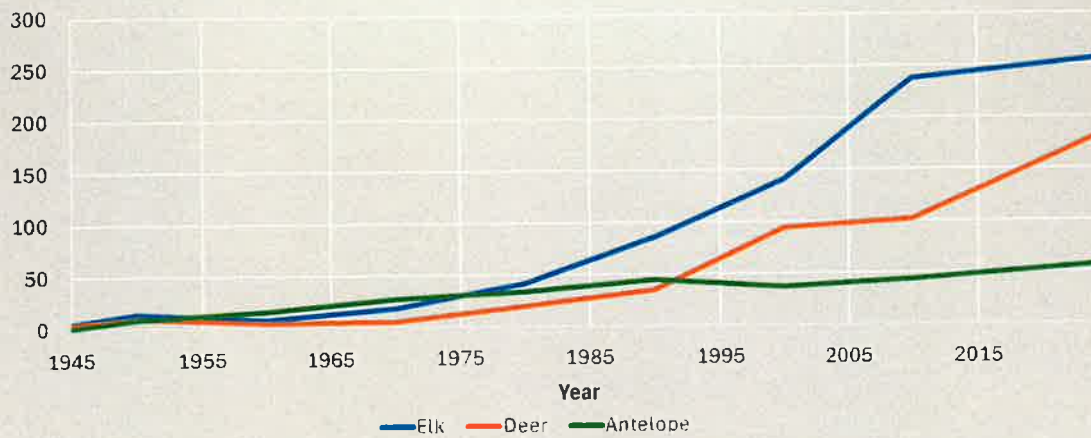
Contact Between Wild and Domestic Elk

The Department generally regulates private possession of wildlife, excluding domestic cervids. In 1999, jurisdiction over domestic Cervidae, defined as elk, reindeer (*Rangifer tarandus*), and fallow deer (*Dama dama*), was transferred to ISDA. At that time, ISDA developed rules for fencing, identification, licensing, fees, and disease testing for importation, all of which were updated or modified over time.

As of 2023, there were 41 domestic cervid producers, primarily in eastern and northern Idaho (Figure 6). Currently, the ISDA State Veterinarian leads investigation and inspection of domestic cervid farms and facilities with regards to presence of wild cervids. Risk assessment includes evaluating number of animals involved, extent and time of contact, record keeping, and previous presence or absence of disease. When necessary, a herd management plan is developed, with cooperation from IDFG, for removal of entrapped wild cervids from existing farms and facilities. In general, wild elk that enter a domestic

NUMBER OF CONTROLLED HUNTS OVER TIME

Number of Controlled Hunts in Idaho 1945-2024



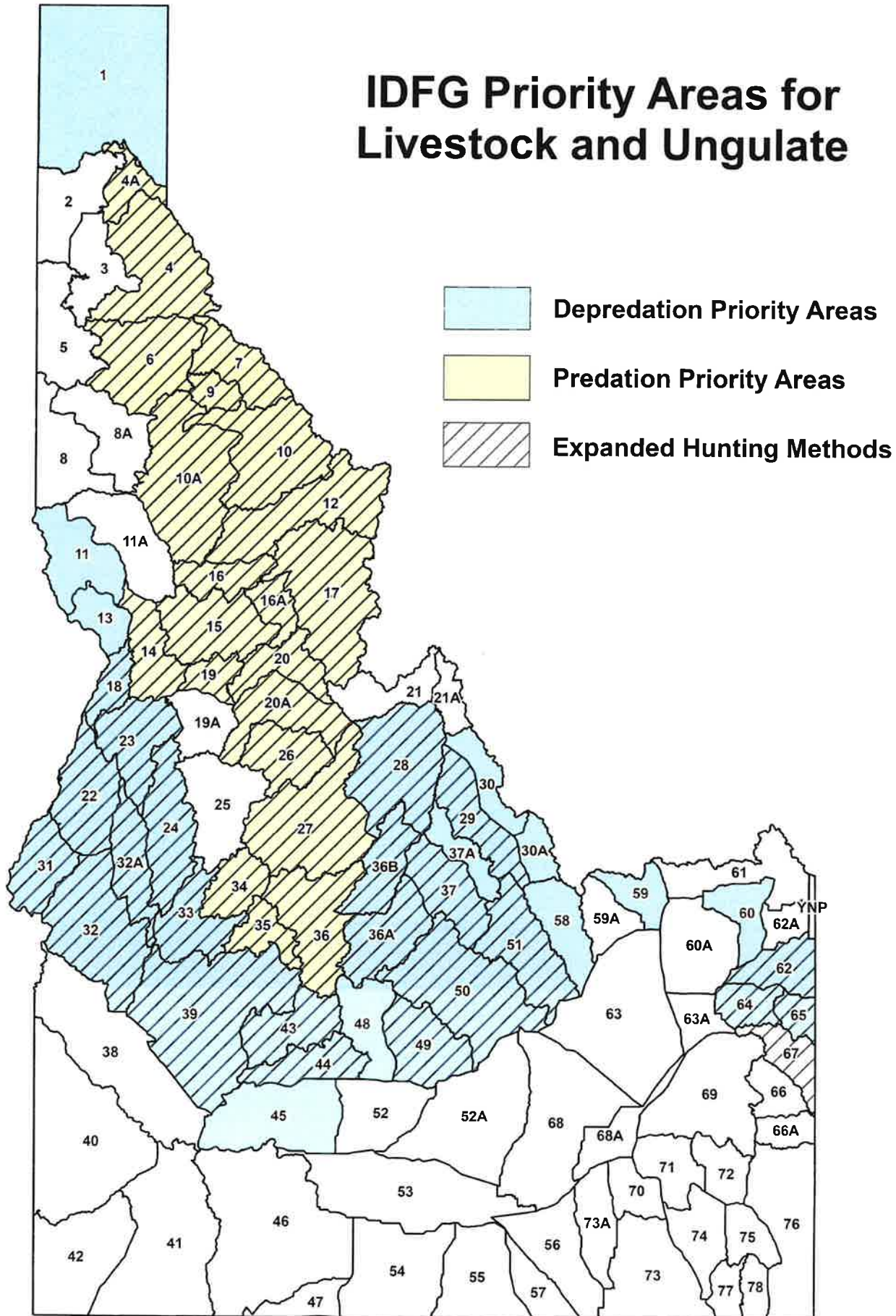
SEASON DATE EVOLUTION

- Sample of Mule Deer Seasons
- 1945 - Oct 5 - Nov 10
- 1950 - Oct 5 - Nov 30
- 1960 - Oct 15 - Nov (6-30)
- 1970 - Oct 17-Dec 13 (Oct 17-19 part of SE region)
- 1980 - Oct 15-Nov 9
- 1990 - Oct 17-Nov 11
- 2000 - Oct 5-31
- 2024 - Oct 10-24

GENERAL ELK TAG EVOLUTION (1945-PRESENT)

- 1945-1998- general tag- Seasons varied, bag limits varied, hunt any general season
- 1999- Present – Pick your zone

IDFG Priority Areas for Livestock and Ungulate



Private Land: Year-Round Expanded Hunting Methods