





Walk-in hunts are everywhere in Alaska, All you have to do is look around.

by Ace Sommerfeld

There's an age-old belief in most Alaska hunting circles which states that walk-in hunts are a waste of time. I've been on too many successful and memorable walk-ins to pass them off.

HUNTING ALASKA By Foot

Walk-ins play an important role in Alaska hunting, and some of the finest Dall sheep and mountain goat trophies taken today are done by bootand blister-travel.

Some of the advantages of walk-ins are obvious. Others are subtle, but no less important. Cost comes first to my frugal mind. If you are considering a sheep or goat hunt for the first time, a carefully planned walk-in may be your best bet. I have run across many novice hunters who should have used a couple of walk-ins as a proving ground before spending close to a grand on a fly-in just to find out they have nothing in common with sheep and goat hunters.

Several times over the years I've used a walkin as a backup to bigger plans. Most of the pilots I hunt with are busy guys who are forced to change plans at the last minute once in a while. Instead of painting the house I went to Plan B and had a great time. My penchant for getting above timberline alone is often reason enough to take off on a Friday afternoon and spend a weekend hunting. It doesn't require a lot of planning, and the desires of a partner don't have to be considered.

Most of the places I use for walk-in hunts are areas where I photograph sheep and goats year round. Keeping close to home allows you to investigate the region throughout spring and

GUNNING FOR GREENHEAD IN THE NEW MILLENNIUM

by Tom Rothe, Waterfowl Coordinator

The 2000 waterfowl season in Alaska holds the usual promise of abundant waterfowl and unique hunting in wild places. Alaska is fortunate to have an abundance of wetlands-from coastal river deltas and tundra to interior river basins-that provide stable habitats for 10-12 million ducks, over 1 million geese and 130,000 swans. In recent years, surveys have shown above-average numbers of ducks and increases in most goose populations. This fall, as always, Alaskans will have no shortage of birds-their success will depend on preparation, weather that concentrates birds before they head south, and being in the right place at the right time. As this article is read in the waning summer, we dedicated waterfowlers are reminded that we SHOULD HAVE been practicing our shooting, training the dog, painting the decoys and squawking on the calls. So let's get focused to make the best of another fall flight.

LOWER KOYUKUK MOOSE HUNT CHANGES

By Randy Rogers, Wildlife Planner

The August 1999 Alaska Hunting Bulletin reported that the Department of Fish and Game had initiated a planning process to consider changes that might be needed in management of moose in the Koyukuk River drainage (see Map 1). After several months of hard work by a citizen's advisory body called the Koyukuk River Moose Hunters' Working Group a draft management plan and several regulatory proposals were produced. Department staff and members of the Working Group presented the draft plan to the Alaska Board of Game at their March 2000 meeting in Fairbanks. The Board of Game adopted the

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Alaska Hunting Bulletin

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Frank Rue

Commissioner of Fish & Game

Dr. Wayne Regelin

Director, Division of Wildlife Conservation

Matt Robus

Deputy Director, Division of Wildlife Conservation

Comments regarding this publication should be directed to:

Editor

Alaska Hunting Bulletin ADF&G/WC P.O. Box 25526 Juneau, AK 99802-5526

Telephone: (907) 465-4190 Fax: (907) 465-6142 e-mail: marthak@fishgame.state.ak.us

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HUNTING RESOURCES, IMPORTANT TO PRESERVE THE SPORT

It seems to happen every year after looking all summer at hunting seasons that appear to be as di stant as if squinted at through the wrong end of a pair of binoculars, suddenly the opening date lo oms just a few short days away.

For hunters, priorities shift andt he pace picks up. Time to organize gear, purchase supplies, and ma ke sure that firearms, bows, and oth er equipment are in working order prior to heading to the field. Successful hunts also depend on the effort spent on planning and research so that you'll have the right permits or harvest tickets and are familiar with the rule s for the areas you will be in. It's also time to reflect on the importance of practicing to improve hunting skills BEFORE attempting to take an animal.

As I reviewed the material contained in this edition of the Hunter Bulletin, I was struck by the similar messages that resonated from articles addressing quite different topics. Whether talking about waterfowling, walk-in hunts, or hunter behavior, the themes of pre-hunt preparation, skill development, and hunter conduct emerged repeatedly. This is a bit different that what you would have seen in a similar publication a decade or two ago. And there are important reasons why.

The field of wildlife management is becoming more challeng-ing all the time. If you follow the issues being debated before the Alaska Board of Game or are aware of the development of a parallel federal subsistence management process in the state it will be obvious that the art and science of managing wildlife is becoming more complicated. Wildlifebiologists are still faced with the problems of understanding how wildlife species relate to their hab-itat and to each other, and how best to monitor animal populations in this vast and remote land. In addition to that, however, we constantly face challenges in determining the best way to manage wildlife populations to meet the varied needs of t he public.

Stated simply, the Division of Wildlife Conservation's mission is to conserve and enhance Alaska's wildlife and to provide for a wide range of uses of wildlife reso urces by people. By tradition in the U.S., and under this state's con stitution, wildlife belongs to 'the people'-all the people. Now that an increasing number of citizens and groups, with a variety of different perspectives regarding wild animals, are willing to speak up ab out their own particular desired wildlife management outcomes, m anagement choices are rarely simple anymore. "The people" have t he right to voice heir views regarding this public resource and

it is clear that agencies can't ignore diverse opinions for long. In recognition that citi-zens' views must be heard and because of the need to find co mmon ground as the foundation f or credible management pro-grams, our agency has invested in a new capability in recent years. We have coordinated, participated, facilitated, and/or sponsored a variety of public involvement processes in order to gather information on wildlife issues, develop recommendations in partnership with various interests and achieve understanding betwe en affected groups of the public. The Koyukuk moose planning project described in this issue is a good example, where the planning group was able to make proposals to the Board of Game that had buy-in from a vari-ety of groups with different inter-ests. The Board takes such efforts seriously, as shown by the passage of virtually the complete proposal package. Other public planning efforts such as the Fortymile caribou plan, the Kenai brown bear plan, and the Game Management Unit 4 bro wn bear plan are good examples of the department working wi th the public to determine how to optimize management of wildlife populations.

Why is this pertinent in a publication for hunters? Well, in my opinion it's because hunters need to go through the same process the Division has, we need to realize that there is a wide variety of public opinions and interests related to Alaska wildlife, and hunters cannot isolate themselves or ignore

these other forces which affect wil management dlife policy. The Division of Wildlife Conservation is committed to providing hunting opportunity and fully recognizes the important role hunters have played in funding wildlife work and supporting professional wildlife management. As we co ntinually work towards the appro-priate mix of wildlife resource programs and regulations it will be ex tremely important to continue to h ave the thoughtful input from hunt ers we've enjoyed in the public pla nning processes mentioned above, and the full participation of hunters in the regulation-making process.

In addition, and this is where I hope to close the loop back to the beginning of this piece, hunters m ust work to gain and maintain the respect of other citizens, because t hose people hold a strong hand of cards in determining the future dir ection of wildlife management pol icy. Most non-hunters do not opp ose the practice of hunting, but if s oured by personal experiences wit h unacceptable hunter behavior th ey could help turn the tide against consumptive uses of wildlife. Wh en I was an area management biol ogist and talked to hunters about waterfowling on Juneau's Menden hall Wetlands State Game Refuge, a tidal marsh surrounded by urban development, I often told them tha t they were "hunting in a goldfish bowl" because they could alw ays be seen and heard by others. That's the image we should al l carry when we're in the field-our behavior should always stand the scrutiny of others. By taking the p rivilege of hunting seriously enough to spend time improv-ing our skills before attempting to take an animal, by researching land status and hunting regulations, and by treating other hunter s, land users and our quarry with respect, we will show that hunters deserve to continue enjoying the a ctivity that means so much to us. The consequences of failing are al most unthinkable.

Have a good time when you're out, be safe, and think about the f uture of hunting.

Matt Robus Deputy Director

STATUS OF UPLAND GAME IN ROAD SYSTEM GMUS

Grouse

Ruffed, spruce and sharp-taile d grouse are all at very low densities throughout most of their range in Interior and Southcentral Alaska. Table 1 shows ruffed grouse dr umming count data in the Anderson/Clear AFS area from 1993 thro ugh 2000. The population was incr easing from 1993 through 1997, be gan to decrease in 1998, and drop ped sharply in 1999 and 2000. The se data are supported by observations around Fairbanks, Delta Junc tion and Tok. Ruffed grouse drumming counts in the Mat-Su Valley area, where ruffed grouse were transplanted in the late 1980's, an d on the northern portion of the K enai Peninsula, transplanted in the mid-1990's, have remained constant at relatively low densities. Spruce grouse, which usually do not cycle as dramatically as r uffed or sharp-tailed grouse, are al so at low densities throughout mo st of the road system. Densities on the Kenai Peninsula appear to be

higher than areas to the north. Har vest data from the Kenai Peninsula based on a sample of 50 to 60 bi rds, indicated a declining trend in t he percent of juveniles from 75% i n 1997, to 65% in 1998, to 50% in 1 999. The extensive mortality on w hite spruce trees in Southcentral d ue to the spruce bark beetle may b e contributing to this decline. Sharp-tailed grouse have also been rapidly declining the last 2 ye ars. This spring very few birds wer e observed on "lek" sites in the Cle ar, Delta, and Tok areas and the w estern portion of GMU 13A and B. Numbers of dancing males at thes e sites had declined by 65 to 80% over peak years.

9 and remained high in 2000. Rock ptarmigan numbers were very low in 1996 and 1997 but began to incr ease in 1998 and appear to be continuing in an upward trend. Whitetailed ptarmigan have smaller clutc hes and never reach the densities t hat are seen with willow or rock pt armigan. However, their numbers also appear to be higher then in previous years.

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Ptarmigan

Ptarmigan numbers are moderately high and stable to increasing. Spring territorial male counts o f willow and rock ptarmigan have been conducted in GMU 13B since 1996. Willow ptarmigan numbers increased steadily through 199

Snowshoe Hares

Hares have been increasing si nce mid-1990 reaching a peak in much of the Interior and the eastern portion of Southcentral in 199 9. In 2000 hare numbers remain h igh, especially in the core areas. Their numbers may still be increa sing in the western Interior and t he southern part of Southcentral. Along with the high numbers of hares are high predator le vels, including great horned owls , northern goshawks, coyotes and lynx, all of which also feed on gr ouse and occasionally ptarmigan.

REGIONAL HUNTING REPORTS

Region I

Black bear- Black bear numbers appear to be healthy throughout Southeast Alaska. A bear research project on Kuiu Island began in June 2000 and shows promise of providing us with the information we need to conduct a population estimate on this heavily hunted population. No changes in bear trends or hunting regulations are anticipated.

Brown bear- The Unit 4 Brown Bear Management Team report is out, and the team's efforts will be a major part of the fall Board of Game meeting in Juneau this November. DWC biologists are working with USFS staff in trying to establish management recommendations for brown bear harvests in the region, especially for nonresident hunters. Fall BOG proposals may include one that would put the Unit 5 hunt on a registration permit (like the remainder of the region), and some form of season restriction on the Unit 1 season.

Elk- The elk population in Unit 3 continues to grow, and for this fall 70 permits have been issued. The target of 20 bulls was not hit last fall (16 bulls were killed), and at the BOG we will recommend an increase up to 120 permits for bulls on Etolin and Zarembo islands and an any elk hunt for Units 1, 2, and the remainder of Unit 3.

Furbearers- Marten research in the region is in the course of being wrapped up, and biologists are in the process of analyzing years of data and preparing final reports. We anticipate no proposals for changes to trapping regulations at the fall BOG.

Mountain goat- Mountain goat populations appear to remain stable, with some question about the effects of helicopter flights in the Juneau area. At the BOG we will suggest a liberalization of the season in the Chilkat Range south of Haines.

Moose- Moose populations seem very stable across the region, with the exception of the apparently growing herd in the Gustavus area. We are considering a proposal to implement a cow season there, and will also likely suggest an increase in the level of the Berners Bay harvest to the BOG. **Wolf-** The Unit 2 (Prince of Wales Island) wolf hunting and trapping seasons were closed 1 month early in winter 2000. Our research continues and biologists are tracking wolves this summer.

Nongame- Goshawk researchers are conducting what may be one of the last field seasons on the years-long research project, and final data analysis and report preparation is underway.

Region II

Black bears- The highest densities probably occur in western and northern Unit 6D and in eastern Unit 6A of the Prince William Sound. Reported harvest during 1997-98 was 221 bears including 178 males, 40 females, and 3 unidentified bears, with 161 bears taken in Unit 6D. This past year's harvest was above the previous 3year average of 177 bears. However, percent males and average male skull size (17 inches) remained unchanged. As in the past, nearly 80% of the harvest occurred during the spring.

Black bears in Units 7 and 15 of the Kenai Pensinula are difficult to count because of the dense habitat in which they live. Black bears are abundant throughout suitable habitat on the peninsula. In Unit 15A, bear densities are estimated at 205 bears per 1,000 square kilometers for areas within the 1947 burn and 265 per 1,000 square kilometers in the 1969 burn. Three thousand black bears were estimated for 15,288 square kilometers of available habitat. The population is stable but probably will decrease slightly over the next decade due to fewer moose in the 1969 burn area and continuing habitat encroachment by humans.

Black bears are numerous in portions of Units 11 and 13, Nelchina Basin within suitable forest habitat. In Unit 13E, Upper Susitna River in 13E bear density is approximately one bear per four square miles. The 1997-98 Unit 13 harvest of 101 black bears was the highest reported. Harvests in GMU 11 are low with only 7 taken in 1997-98 and present no influence on overall bear abundance. It is estimated 250 to 300 bears inhabit Unit 14C in the Anchorage area and the population has increased in recent decades. Only about 17 black bears are harvested annually by hunters, primarily because black bear hunting is not allowed in most of the Subunit and baiting is prohibited. Defense of life and property shootings are increasing, from 1995 to 1998, the Subunit averaged 12 black bears taken per year.

Brown Bears- The population of about 750 bears is probably stable or increasing in the Prince William Sound. The bulk of brown bears (280) are in Unit 6D. Hunter harvest in 1997-98 was 53 bears, including 40 males. The average male skull size was 23 inches. Fifteen bears were taken in Unit 6A and 27 bears taken in Unit 6D.

Brown bears are difficult to count due to the dense cover over most of their range on the Kenai Peninsula. We estimate the 13,848 square kilometers of brown bear habitat support an average density of 20 bears per 1,000 square kilometers, resulting in a population of 277 bears (range 250 to 300) in Units 7 and 15.

The population is stable in the Kodiak Archipelago Unit 8 with an estimated 2,800 animals and an average annual hunter harvest of 160.1 bears between 1990 and 1998. Bear numbers in northeastern Kodiak Island seemed to have increased in the last two decades a result of less intensive conflicts between cattle ranchers and bears. The population estimate for areas open to hunting is 5,680 in the Alaska Peninsula area of Unit 9. This unit produces almost onequarter of the state's brown bear harvest, with guided hunters accounting for 70 percent of the take. Annual harvest has averaged 270 over the past 10 calendar years, with a record of 285 taken during Fall 1997. Harvests have been evenly balanced between fall and spring hunts and have remained within desired limits, resulting in high quality hunting. Since 1991, fall and spring hunts have produced an average of 62 percent and 77 percent males with average skull sizes of 23.4 and 25 inches, respectively.

Unit 13 is considered good

interior habitat, varying in type from tundra to timber with bears numerous throughout the unit. A population estimate obtained in 1996 and 1998 resulted in about 1,500 bears in Unit 13. Brown bears are found throughout GMU 11 but no population estimate has been made. Harvests are extremely low, with only four taken in 1997-98, and have no impact on the population.

Densities are stable or increasing in the Matanuska and Susitna Valley area. While the density in highly settled 14A appears lower than adjacent Subunits, brown bear numbers appear to be increasing. Harvest tracking suggests the large adult male segment in 16B had decreased. During 1992 through 1996 hunters harvested an annual average of 8 female brown bears in 14A and 14B and in Unit 16 they harvested 56 owls.

The estimated population of 55 to 65 appears stable with most of the bears in or near Chugach State Park in Subunit 14C. Very little of the unit is open to brown bear hunting and brown bears are seldom taken by hunters.

Deer- Highest densities are found on Hawkins, Hinchinbrook, Montague and Knight islands in 6D. Numbers increased over the past four years in response to relatively mild winters. The population could be approaching the level reached during the last peak in the mid 1980s. During 1997 to 1998, 1,485 hunters reported taking 2,525 deer. Seventy-one percent of the harvest was males and 66 percent of the hunters were successful. Clear-cut logging of old-growth forest on private land in 6D is a concern. Extensive logging occurred on the mainland in eastern 6D and in Patton Bay/Beach River on Montague Island.

After reaching an historic high in the mid-1980s, the population experienced a major decline fol-

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Sitka black-tailed deer- Deer populations experienced a mild winter in 2000 for the most part. We do not anticipate any staff proposals to the BOG this fall.



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WHATS NEW FOR ALASKA'S WATERFOWL HUNTERS IN 2000

FROM PAGE 1

Gearing Up for Opening Day 2000

This season will be the 10th year Alaskan hunters have shot waterfowl under nontoxic shot rules. Most hunters have gained enough knowledge and experience to feel comfortable with steel shot-it is widely available and prices are now comparable to quality lead loads or less. However, in recent years, the shotshell industry has developed five other alternative nontoxic shot types for those that want high-density metals. Bismuth-tin and tungsten-iron shot have been around for several years. Tungsten polymer, tungsten matrix and tin shot were the newest entries in the field last year.

Although these new shot types use dense metals, they share some disadvantages-high common cost, special shotshell configurations and lack of adequate performance data to evaluate their worth as lethal loads. The dense metals are relatively rare and are extracted as by products of other mining-they will likely remain in short supply and the price will not come down. In addition, bismuth, tungsten and tin all have physical characteristics that require special shot-making processes and new shotshell designs. These factors result in "sticker shock" from the pricetags on bismuth-tin (\$1.50 per shell) and tungsten-iron (\$2.25 per shell). Most hunters are not willing to pay those prices-on up-for "boutique shot" when their serviceable steel loads cost 40 cents a pop.

Perhaps the most important obstacle in judging the currently approved new shot types is the lack of thorough, objective testing in the field. As usual, sports writers and industry advertisers are first out of the chute to rave about new products-but the conclusions offered are almost never based on scientifically designed studies of external ballistics under field conditions. At this stage, the jury is still out on whether most hunters can cleanly kill waterfowl better with these loads than with lead or steel Let's see if buffered loads will prevent the tendency to fracture in large bismuth-tin shot-let's see if the thick wad and small shot capacity of tungsten-iron shells will produce lethal pattern densities downrange-let's see if tungsten polymer and tungsten matrix retain their pellet shape and effective patterning when fired. Ultimately, most of us will be "throwing iron" in the marsh because of its price, availabilityand we have adapted to steel's characteristic velocities and patterning performance. Nevertheless, a brief refresher might provide some valuable pre-season thoughts on ammunition and choke choices, and stimulate practice on the range to improve our skills.

Steel is lighter than lead. To compensate for steel's lighter shot weight than lead and retain more energy beyond 40 yards, the general rule is to use steel shot one or two sizes larger than you would with lead (example: #2 or #3 steel instead of #4 lead).

Steel is harder and deforms less. Because steel shot is rounder, shot strings of steel are only 60-70% the diameter of lead and only 1/2 to 2/3 of the length. More open chokes (IMPROVED CYLIN-DER or MODIFIED) will spread and lengthen steel's smaller strings and improve your ability to intercept birds, but shorter steel shot strings will demand more practice for effective trigger timing.

Steel shotshell configurations are different. Better pattern efficiency and more payload volume in steel shotshells means we can buy lighter steel loads (e.g. 1 ounce vs. 1-1/4 ounce) and get effective charges at less expense.

Unfortunately, the shotshell marketplace is often not in tune with our needs. In particular, the "big box" stores are prone to stocking only large shot sizes, even-size shot (2, 4) and mostly heavy loads. In some areas, it is difficult to find #1 or BB steel for Alaska geese, #3 steel—the optimal duck load, and #6 steel for close ducks, wounded birds, and clay targets. No wonder hunters are dismayed at the high prices and poor selections of shot sizes!

The technology of shotgunning is fascinating and rewarding if you want to devote some time to serious study of ballistics. However, it is important for waterfowl hunters to educate themselves at least about the basics of shotguns, chokes and shotshell effectiveness to ensure better satisfaction in the field and a more efficient harvest of birds. The advent of nontoxic shot has both unfortunately produced misinformation that persists in confusing hunters, but also provides reason to learn how we can use shotshell technology more effectively without toxic lead shot. There is a lot of information and help available, through periodic shotgun clinics, written materials, and trained staff to answer questions. Just call toll-free (800) 478-SHOT.

birds are lost. Any experienced waterfowler will attest to the challenge of cleanly bagging ducks they are fast, hard to target, and seem to enjoy rocketing through the decoys when least expected. Here are some major factors contributing to lost (and missed) birds, and an efficiency checklist for planning your hunt strategy:

Species of Bird - Each kind of game bird behaves differently, requiring the hunter to know and anticipate the prey in order to make an effective shot. Body size, flight behavior, habitat preferences, and social habits are all-important considerations for your choice of gear, location, and techniques. Other than knowing areas where game birds are abundant and their favorite habitats, knowing the body size and typical flushing distance will help you plan your gauge, choke and ammunition selection to meet the challenge of wing shooting. Studying game bird identification will make the hunt more interesting and keep you out of trouble with the restricted bag limits on canvasbacks and some grouse species. Summer duck-watching and leafing through the field guides is a good way to prepare for fall hunting.

Habitat and Local Conditions -Hunting in dense marshes presents substantial risks of losing birds that are downed, compared to the ease of recovering birds on open water. Plan ahead, get to know the hunt area in advance, and select a shooting stand that offers good visibility in your zone of fire and watch every shot bird carefully until it is down. In Alaska, it is not unusual to lose birds on outgoing tides or down-river. Having a boat and dog where they are needed is essential.

Hunt Methods - Pass-shooting can result in bird losses as high as 60%, in contrast to more careful and accurate shooting available at closer ranges over decoys. Passshooting at any distance requires good gun-handling and practice, and it is the most abused technique of unskilled hunters. It may require an initial investment of time, but far more birds can be bagged—more enjoyably-through learning the arts of calling and decoying birds into your effective range, than through all the desperate rapid-fire, sky-busting, magnum-thumping, anti-aircraft tactics used by those who can't shoot well! In some areas, jump-shooting results in satisfying success from skillful stalking. However, the best sneak can be tarnished by birds lost in attempts to shoot beyond effective ranges. Often jump-shooting presents us with a going away bird that is difficult to kill-bones and muscles of the legs and pelvis shield vital organs and the tough gizzards of waterfowl protect the heart and lungs. Careful judgement and perhaps a larger shot size are warranted for this kind of hunting.

ence about gear and hunting strategies, the most important factors in cleanly bagging waterfowl or losing wounded birds are the gun-handling skills and triggerpulling judgement of the individual hunter. The most difficult problems are learning how to swing a shotgun on a moving bird and when to fire the shot-and when to pass up marginal chances. A good wing-shooter needs as much or more athletic ability and coordination as an accomplished golfer or baseball hitter, yet there are a lot of hunters who leave their shotguns in the closet from the season close to the next opening day, or expect to pick up the scatter-gun cold and hit a home run the first time out. Like learning the habits of game birds, off-season study and practice-practice-practice, are the keys to becoming an efficient and skillful shotgunner.

By far, the most common and serious error committed by waterfowlers is underestimating distances to their targets and attempting shots that are too long for their skills and chosen ammunition to guarantee a clean kill. Beyond 35 yards, struck birds are lost at twice the rate of birds that are shot at closer ranges, and the losses increase phenomenally beyond 50 yards. For the sake of personal satisfaction and conservation of migratory game birds, it is critical that waterfowlers learn the effective ranges of their ammunition, how to judge distances in the field, and to shoot only within the limits of their own shooting abilities. Yet again, off-season work is the answer-pattern testing loads, shooting clay targets and accurately visualizing the limits of our skill and technology.

Gun Dogs—the Waterfowler's Best Friend

I often have reason to re-evaluate my choice to live with three active hunting dogs and a spouse who prefers dog training over pure leisure (sleep) on the weekends. But as I scroll through the "dog-day" memories....old Charlie the Labrador's midnight sneak into Bill's bunk after a hard Susitna Flats opening day...Miss Ruffian making a "pop-fly" catch on Ann's first white-fronted goose...and 6-month-old Griz staunchly pointing an eastern Oregon chukar, the pleasures and purposes of living with bird-dogs are reaffirmed. Although many people are not enthused about feeding, training, and living in close quarters with a rather large, rambunctious canine, mankind has developed unusually firm bonds with dogs that transcend mere companionship and household defense. In my view, these bonds are most meaningful in the many uses we have for working dog breeds, and the most artful in a bird hunter's partnership with a trained gun dog.

Hunting Strategies for Waterfowl—Arts and Ethics

Prior to the North American duck crisis of the 1980's, about 5 million people hunted migratory birds annually in the U.S., harvesting 12-15 million ducks and 1.5 million geese each vear. Alaska has averaged about 10,000 waterfowl hunters, taking about 110,000 ducks and geese. Unfortunately, on average, one in every four waterfowl shot by hunters are not rendered to the game bag-they're wounded and lost-they recover, survive as injured birds, or die. Even under ideal circumstances, like a study in Illinois where skilled shooters and guides were involved, 15% of the

Hunter Skills - Besides the necessary knowledge and experi-

SEE, GREENHEADS, PAGE 11

CHANGES MADE IN LOWER KOYUKUK MOOSE HUNT

FROM PAGE 1

recommendations developed by the Koyukuk River Moose Hunters' Working Group with a few minor amendments. The plan was also presented to the Federal Subsistence Board in May 2000 and they took action to align federal subsistence hunting regulations with changes made by the Alaska Board of Game. Involvement and coordination between rural and non-rural Koyukuk moose hunters and state and federal wildlife and land managers was crucial to the success of the project. The draft plan will remain open for public comments through November 1, 2000.

Changes to the lower Koyukuk moose hunts include:

 Moose hunting permits will now be required throughout the entire Koyukuk Controlled Use Area (KCUA). This means permits will be needed from the mouth of the Koyukuk River to Hughes. Previously permits had been required only in the portion of the KCUA downstream from Huslia.

• The general registration hunt has been changed to a drawing hunt. The Board authorized issuing up to 400 permits in one season with 80% of the permits to be awarded to residents and 20% to non-residents. The actual number of permits available each year will be determined by the Galena Area Biologist, based on the moose population status and other biological factors.

• Beginning with the 2001 hunting season, there will be a winter application period and drawing for Koyukuk moose general hunt permits. Applications for the fall 2001 hunt must be submitted between November 1, 2000 and December 6, 2000. Winners will be notified in January 2001. There are two separate 10-day drawing hunts in the early and late portions of the season. Persons who are successful in any Koyukuk moose hunt drawing will not be eligible for any Koyukuk moose drawing permit the following year.

to destroy the trophy value of any bull moose taken by sawing through the palm of one antler at the kill site. The head must be salvaged and remain with all the meat to the final point of processing. During the fall hunt, cow moose may only be taken for a five-day period from August 27-31.

More About The Draft Plan Who Developed The Plan?

The draft Koyukuk River Moose Management Plan was developed through the cooperative efforts of the Koyukuk River Moose Hunters' Working Group, the Alaska Department of Fish and Game, the U.S. Fish and Wildlife Service, and other agencies. The Working Group is a citizen-based advisory body composed primarily of representatives from state fish and game advisory committees. The group also includes representatives from the federal Western Interior Regional Advisory Council and commercial operators. Agency personnel have been involved in the planning process as technical advisors. The recommendations of the Working Group were developed through a decision-making consensus process. Working Group members agreed on the need to be biologically cautious with the moose resource, and to manage for a quality hunting experience. The Working Group recommended that the number of hunters who participated in the hunt in 1998 be used as the baseline for the maximum level of hunting that management should provide for in the lower Koyukuk River area.

Mission Statement

Protect, maintain, and enhance Koyukuk River drainage moose populations and habitats in concert with other components of the ecosystem and provide for fair and equitable human uses of the moose resource.

Management Goals

The draft plan includes eight different goals that address a variety of topics including harvest, habitat protection, predation, commercial operations and enforcement. Objectives and actions needed are listed beneath each goal in the plan. The first three goals in the plan are:

River drainage in order to support existing or, in the case of areas with depressed moose populations, increased population levels.

GOAL 3: Manage predation on moose so that moose abundance can be maintained or increased, human harvest levels can be maintained and populations of predators remain viable.

Moose Population Status

Aerial trend count surveys are the most common moose monitoring surveys used on the Koyukuk River drainage. Trend counts are conducted in the highest density areas because counting the greatest number of moose possible provides for more reliable evaluations of sex and age ratios. Sex and age ratios are the most important aspect of trend count surveys because they can serve as indicators of populations trends.

In general, most trend count survey results in the Koyukuk drainage indicate declining moose densities. The 1999 survey results from the Three-Day Slough Trend Count Area may have been compromised by poor counting conditions; however, if the observed results are real, the density may have dropped considerably. The trend count survey conducted in 1998 resulted in an estimate of 11.9 moose per square mile while the 1999 survey estimate was 6.6 moose per square mile.

Unit 21D: Trend count surveys like those conducted in Three-Day Slough in 1998 and 1999, indicate declining numbers of calves and yearling bulls and a decline in the population because of low recruitment is expected. At this point, with a unit-wide decline of approximately 10% since 1997, there are probably 8500 ± 1000 moose in Unit 21D.

Unit 24: The estimated number of moose from the 1999 population survey for the portion of Unit 24 upstream of Hughes is 4956 ± 1050. The previous estimate was a maximum of 7500 moose, so the decline in that portion of Unit 24 is estimated to be on the order of 25%. Combined with the estimate for Unit 24 downstream from Hughes, revised to be a maximum of 4000 moose, the population estimate for all of Unit 24 is 9000 moose \pm 1500.

Figure 1. Hunters and moose harvest in the KCUA

From 1988 to 1998 numbers of residents non-local Alaska increased 265% (121 vs. 321 hunters). From 1988 to 1998 numbers of nonresident hunters increased 630% (20 vs. 126 hunters). During this time there was a relatively moderate 11% increase in numbers of local resident hunters (158 vs. 179). Success rates have remained constant during this time, as has the age and antler width of the bulls harvested on the lower Koyukuk River. Annual harvest was approaching the general guidelines of sustainability with the 1998 harvest in the range of 6.5%-7% of the estimated population on the lower Koyukuk River. The 1998 harvest for the entire drainage (Unit 24 and northern Unit 21D) was approximately 3.5%-4% of the estimated population.

Division of Subsistence harvest surveys conducted in 1998 and 1999 indicate that 91% of all households in Middle Yukon and Koyukuk River communities used moose. During these years approximately two-thirds of all households went hunting for moose and 47-48% shot a moose. These are high harvest and use rates relative to some other Interior Alaska rural communities, showing the importance of moose as a subsistence resource in this region.

Predation

Moose are the predominant prey species in the Lower Koyukuk Drainage for wolves. For most of the year, moose are the major prey species for wolves in the upper Koyukuk as well, except during winter if migrating caribou become available. An aerial survey completed in 1999 indicated a wolf density 17% higher than was estimated in 1994.

As the need to stabilize moose populations in the Koyukuk became evident and recommendations were made to reduce harvest levels, the Working Group strengthened its recommendations regarding control of predation. Initially the group focused on increasing opportunities to harvest predators. More recently the group agreed to recommend predator control, including aerial wolf hunting, and preparation of an Intensive Management Plan.

• Permit holders will be required to stop at Ella's Cabin check station or Huslia or Hughes to activate the hunt dates on their permit. In addition, all permit holders, unsuccessful as well as successful, must report in person at Ella's Cabin check station or in Huslia or Hughes within 48 hours of the close of the 10-day season for which the permit was issued.

• The subsistence registration hunt season within the KCUA has been shifted 5 days forward to August 27-September 20. All Alaska residents may participate in the subsistence hunt and permits will be available at the Ella's Cabin check station, Huslia and Hughes. The hunter is required

GOAL 1: Manage Koyukuk River drainage moose on a sustained vield basis to provide both hunting and other enjoyment of wildlife in a manner that compliments the wild and remote character of the area and that minimizes disruption of local resident's lifestyles.

GOAL 2: Protect and enhance moose habitat within the Koyukuk

Moose Harvest Trends

Harvest has been increasing within the KCUA of the lower Koyukuk drainage during the past 10 years. At the Ella's Cabin check station in 1999, a total of 731 hunters were checked and they harvested 367 moose. This compares to the 299 hunters that harvested 181 moose in 1988 (Figure 1).

Resident and Nonresident Hunting Opportunities

Separate resident and nonresident drawing hunts will retain opportunity for nonresidents and commercial guides, but at a much lower level than has occurred in recent years. If resident demand continues to increase however,

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ROAD ACCESSIBLE HUNTING OPPORTUNITIES

by Tom Reale

Big game hunting in Alaska is a multidimensional challenge the state is immense, the varied number of species available for hunters is greater than anywhere else in the U.S., and terrain and weather present significant hurdles to the prospective hunter. Although much of the hunting effort is conducted in remote regions, assisted by airplanes, outfitters, and guides, many sportsmen choose to try and find animals near cities and towns where road access is possible.

This strategy has its advantages and its drawbacks. The main advantage to hunting on the road system is cost, or lack thereof. Reaching wilderness areas by chartering an airplane can send hunting costs into the thousands of dollars, and when you add outfitting and guiding costs as well, the final price tag can be formidable, to say the least. Also, flying in for a big game hunt demands a time commitment that many hunters can't afford, especially considering the open-ended nature of such plans, since weather problems can extend your stay in the field by several days.

Finally, hunting in a close-by, familiar area allows you to scout the area before the season opens, and if you do so year after year you acquire an intimate knowledge of the region and of the animals that frequent the place. It's possible to hike and backpack into an area reachable by road during the spring and summer and look for game trails and signs, and evaluate the area's potential for hunting success.

However, the downside of hunting accessible areas is that they aren't accessible just to you.

Although the total number of hunters in the state is small compared to that in other states, when you concentrate them in our relatively few miles of roads it sure can seem like a lot of folks. If you want to experience moose hunter overload, try driving the Hatcher Pass Road near Willow on the opening day of moose seasonyou'd think that word got out that someone had dropped bales of dollar bills out of the sky. And if there's one suggestion that gets the unanimous vote from the Fish and Game people interviewed for this article, it's that your chances of success are in direct proportion to the distance you put between yourself and the thundering herd of hunters who congregate in the most easily accessible areas.

Lots of hunters on the road means less chance of success for any one person. To increase your chances, to try to guarantee that you're that one person, you're going to have to expend significant effort, both mental and physical.

First, the mental part—you must become a student of the hunting regulations book. Each Game Management Unit (GMU) has a number of special areas that demand study if you want to separate yourself from the pack. Controlled use areas, game refuges, management areas, parks, etceteras, all have rules and regulations that affect your ability to access and hunt them.

Next, you should become an amateur cartographer, studying topographic maps in great detail. The Alaska Atlas and Gazetteer is invaluable for getting an overall look at the topography of the area, getting a feel for the steepness of the terrain and an idea of the vegetation cover. Although the maps aren't detailed enough to



serve as your field maps, they show many roads and trails not shown on USGS topo maps. The topo maps haven't been updated in decades, and the atlas can point can show you how to use and read their maps.

Once you've got some ideas on where you'd like to go, your next step ought to be the closest Alaska



out access possibilities that would otherwise go unnoticed. Most of the places on the road system are covered by the 15minute (63,360 to 1) USGS section maps, and some areas have the even more detailed 7minute (25,000 to 1) maps available. You can't have too much detail when scouting or travelling in unfamiliar terrain. Do not attempt to use the maps in the hunting regulations book to determine exactly where you're going to hunt-those maps are rudimentary at best, and intended to serve as rough indicators of areas, not as exact delineations.

Another source of information often overlooked is hiker's trail guides. Gail Volt of the Anchorage office of Fish and Game suggests looking over all the guides for trailhead and access information. "Even the mountain biking books have trailhead information that the other guides don't have," she said. So be creative in your search for information. Check out fishing books, cross-country ski books, mountaineering sources, anything and everything that might lead you to some of the lesser-known trails and access points.

The next step in your quest is to determine who owns the land you want to hunt. Although the vast majority of Alaska is publicly owned, the areas near the roads are checker boards of private, state, federal, and Native corporation lands, and it's your responsibility as a hunter to know where you are at all times and to be sure that your presence is allowed by law. The best sources of information are the Alaska Department of Natural Resources Recorder's Office, and the Bureau of Land Management Lands Office. These offices have detailed land use maps that show who owns the land, and how to get in touch with owners. They also show areas where hunting isn't, allowed such as campgrounds, restricted areas near trailheads, etcetra. The people who work at the offices are knowledgeable and helpful and

Department of Fish and Game office (ADF&G). There they have large, detailed maps of the state marked to indicate hunting units, closed areas, controlled use areas, etcerta. The personnel at Fish and Game offices are helpful in answering questions about hunting areas. However, don't expect to call or walk into an office and ask where you can find a moose. Do your homework first, narrow down your options, and be as specific as possible when posing your questions. You're much more likely to get a positive response if you ask about the relative merits of two or three possible sites, than to expect a wildlife biologist to divulge the location of his favorite hunting spot.

Fish and Game offices also have handouts, copies of topo maps outlining designated hunting areas. These are not meant to be used in the field—they lack detail and merely outline the areas involved. It's up to you to obtain the correct topo maps for the area, and mark the appropriate boundaries on the maps you carry.

When you visit the DNR, BLM, or Fish and Game offices, bring your topo maps with you. You can mark exact locations on the maps you'll be carrying in the field so there's little chance of error or misunderstanding.

When you're investigating your options, of special interest are the controlled use areas-many of these restrict or prohibit access by motorized vehicles. This is a boon for a couple of reasons. The first is that quite a few hunters won't go anywhere they can't get to by truck, boat, airplane, or ATV. (This is where the physical part of your strategy comes into play.) If you're willing to expend some effort, you'll leave most folks behind you at the roadside. There are also places, such as along the Denali Highway in the Clearwater Creek Controlled Use Area, where it's possible to reach hunting areas by canoe. You can paddle and line a canoe upriv-

to provide private resources for the effort of training new hunters and educating the public about the benefits hunting brings to wildlife conservation.

Endorsed by the Alaska Department of Fish and Game, the HHFA has been an active partner in the Alaska Hunting Clinic Series since its beginning in 1995. Long term plans include educational projects promoting hunting's important role in wildlife management and the cultural heritage of Alaskans.

All contributions to the HHFA are tax deductible and will be used entirely for projects that benefit hunting's future. Please send your contribution to:

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SEE, HUNTING, PAGE 10

OPPORTUNITIES FOR HUNTERS IN ALASKA

FROM PAGE 3

lowing three consecutive severe winters beginning in 1987-88. Northern Kodiak and Afognak islands experienced particularly severe mortality. Light to moderate winter mortality has occurred in portions of GMU 8 annually since then, and improved winter conditions have resulted in an increasing population in the southern portions of Kodiak. The population is well below that of the mid 1980s and recovery on northern Kodiak and Afognak islands has been slow. Hunters reported that in 1998 deer were not as prevalent as in previous years and that larger bucks were scarce. The estimated annual harvest during the past seven years has averaged 8,213. The estimated number of hunters afield ranged from a high of 6,157 in 1989-90 to a low of 2,946 hunters in 1993-94.

Goat- The population is about 3,200 in GMU 6 of the Prince William Sound area. Over the past 10 years, numbers have declined dramatically in Units 6A and 6B. The population in 6D (East) declined from 1988 to 95, but increased during the past two years. In 6D(East), the population recovery may be temporary because much of the goat winter range is in private ownership where extensive logging is planned or in progress.

Following a steep decline on the Kenai Peninsula (Unit 7 and 15) beginning in the late 1960s through the early 1970s, the goat population began to grow by the mid 1970s. Growth continued until the early 1990s when the population showed signs of stabilizing. Moderately severe winters in 1992-93 and 1997-98 resulted in a density reduction in several count areas. Upper elevations experienced heavy snows followed by warm periods, causing crusting and icing conditions in 1992-93. In 1997 to 1998 conditions were similar, however, late winter and early spring snows persisted into the summer months

The population was estimated

numbers have been relatively stable in the Nelchina Basin of Units 11 and 13 for the past decade. The most recent population estimate for Unit 11 is 400 animals north of the Chitina River and 300 in the Chugach Range. There is no formal estimate for GMU 13, but surveys, harvest data and anecdotal information suggest the population is stable.

During 1998, in the Chugach Mountains portion of Unit 14A, 115 goats were observed, of which 22 percent were kids. The population appears to have stabilized at approximately 140. In the Talkeetna Mountains it appears numbers have been stable or declining. Observations during sheep surveys in 1995 suggested fewer goats.

The estimated population of 750 goats in Unit 14C is increasing and expanding westward into Chugach State Park. Kids comprise 16 to 22 percent of the population. The harvest has ranged from 25 to 40 with slightly more than 60 percent billies taken in Subunit.

Sheep- Since the late 1970s, sheep have been increasing in the Kenai Mountains of Units 7 and 15. The current population estimated is 1,500-1,775 sheep.

Numbers in the Talkeetna Mountains west of Chickaloon River in Units 14A and 14B declined 61 percent from an estimated 1,000 in 1988 to 390 in 1994. No surveys have been conducted recently, but given recent winter weather and speculated predator abundance we assume the population has been stable at approximately 400 sheep. In the Chugach Mountains portion of 14A, there is an estimated 1,000 sheep with 28 percent legal rams and 18 percent lambs. There are an estimated 1,100 to 1,200 sheep in 16B portion of the Alaska Range between Chakachamna Lake and Dall Glacier and east of the Styx, Tatina and South Fork of the Kuskokwim rivers.

Harvest in Unit 11 for the 1997 fall season was 79 full curl rams, 20 juvenile rams, and 14 ewes. Harvests of full-curl rams in the Chugach and Talkeetna/Chulitbecause hunts in Unit 6B were canceled due to low calf survival. The five-year average is 114 moose taken in Unit 16.

The selective harvest (spike/fork-50 inch) regulation has been in place on the peninsula for 12 years on the Kenai Peninsula. Initially, hunting effort and harvest declined, then increased as hunters became accustomed to the new strategy. Hunter numbers now are similar to previous records and harvest is approaching early 1980s levels. Calf to cow ratios have increased in Unit 15A while bull to cow ratios have increased about 50 percent. In Unit 7, the bull to cow ratio has more than doubled. Increases similar to 15A were seen in Unit 15B West and the non-refuge portions of Unit 15C. Although, selective harvest has improved ratios, kept older bulls in the population, provided large bulls for viewing and allowed longer seasons, illegal harvest remains a problem. Illegal harvest accounts for about 7 percent of the annual harvest. Most illegal bulls are in the 38 to 48-inch category. The number of cows mistakenly shot for bulls decreased from an annual mean of 30 to approximately 10 per year.

The Unit 13 moose population declined by about 20 percent between the late 1980s and early 1990s, based on moose-per-hour figures in fall composition surveys. Trends by subunits were variable with the largest decline observed in 13B and the smallest in 13A. The 1998 calf to cow ratio of 14 to 100 was the lowest in more than 20 years. In some count areas the number of cows counted per hour is down slightly for three of the last four years, suggesting a decline in moose numbers continues in portions of the unit. Harvests under the general spikefork/50inch state hunt, as well as state and subsistence permit hunts for any bull, have averaged 1,011 bulls (range = 904-1,240) between 1993 and 1997. A breakdown of

the 1997 harvest shows 869 moose reported under a general harvest ticket, 25 for Tier II and 43 under federal subsistence for a total take of 937. Both fall composition data for bulls and harvest ticket reports from successful hunters suggest fewer older large bulls remain in the population after hunting season under the current harvest strategy and level of hunting pressure.

The moose population is stable at low density for Unit 11 with a ratio of 111 bulls to 100 cows. The moose density in this unit is only 0.4 moose per square mile. The harvest varies between 30 to 40 bulls a year. Hunting pressure is very light.

The population is estimated at almost 18,000 for Units 14A, B, and Unit 16 in the Matanuska and Susitna Valleys. Population objectives include post-hunt ratios of 20 to 25 bulls compared to 100 cows on the mainland and 15-20 bulls to 100 cows on Kalgin Island. The subpopulation of Unit 14A, under poor counting conditions, was estimated at 4,700 with 17 bulls to 100 cows and the subpopulation for Unit 14B is estimated at 2,000 with 38 bulls to 100 cows. The subpopulation for Unit 16A was 3,600 with 33 bulls to 100 cows during fall 1997. The subunit (excluding Kalgin Island) objective is 6,500 moose. We believe there are now less than 6,500. North of the Skwentna River we estimated 1,900 moose with 38 bulls to 100 cows during 1996. Between the Skwentna and Beluga rivers our 1994 estimate was 3,500 moose with 26 bulls to 100 cows. South of Beluga River we estimated 1,200 moose during 1995-96.

The 23-square-miles of Kalgin Island has moose as the result of an introduction of calves during the 1950s. The most recent survey suggested a high-density population near 6 moose per square mile. An estimated 130 moose with 27 bulls to100 cows.

at 800 animals in 1998, for Unit 8 in the Kodiak Archipelago. Goats occur in nearly every major drainage on Kodiak Island. Occasional goats have been seen on Uganik Island, but a herd has not been established there. Highest densities, approximately two to three goats per square mile, occur in the Ugak Bay, Terror Bay, Uganik Bay and Kiliuda Bay drainages of northcentral Kodiak Island. In the past 10 years the average annual harvest was 45.5 goats, including 61% males. A record number of goats have been harvested in each of the past 4 seasons (48, 59, 62, 69).

Data indicate there have been yearly fluctuations in sex and age composition, but overall goat na/Watana Mountains were slightly lower in 1996 and 1997 than the 1993 through 1995 seasons.

The population of sheep in Subunit 14 doubled from 1980 to 1989. In the 1990s, winters with deep snow or heavy icing have killed an estimated 150 to 500. Lambs comprise about 14% of the population. All hunting is by drawing permit. The annual harvest from 1993 through 1997 averaged 72 sheep.

Moose- The population is about 1,150 in the Prince William Sound area of Unit 16. The trend is stable in all Subunits except 6C, where moose are slowly increasing the population to 400. Harvest during 1997 to 1998 was 53 moose. This was lower than usual



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WALK-IN HUNTS ABOUND IN ALASKA

FROM PAGE 1

summer. This is a bonus to walkins for several reasons: you learn the country, get in shape, and test your limitations. A lot of stalks have been blown because hunters didn't know the terrain well enough.

Planning your walk-in into an area devoid of aircraft access can be a boon to your hunt. Not only do you eliminate the immediate competition of hunters with fresher legs, who probably did a flyaround and know where the game is, but you are likely to be in an area that in general gets less hunting pressure. Walk-ins allow you to hunt where you want to, as opposed to, where someone is willing to take you. The meaning of a "good strip" is often different for a hunter and a pilot who has an airplane to think about.

Walk-ins allow a hunter to take advantage of Alaska's expanding wilderness trail system. Using trails often makes it possible to spend more daylight hours on a mountain. If I know I can hit a trail at the base of a mountain near dark, I don't mind pulling the pin on an animal late in the day. Knowing where the trail comes out insures a safe hike without the worry of getting lost in the dark. Trails usually double my speed in low country. The importance of using trails hits home on late season goat hunts when days are short, and snow makes overland travel slow.

The idea of fly-ins being easier on the body than walk-ins is unfounded. When I think of the miles I put on after landing on a remote strip, I realize many of those trips were as long and tiresome as any walk-in I've experienced. Careful planning is more important than flying out to unexplored territory. Talking to veteran hunters and biologists, and studying harvest reports should help a walk-in turn into a successful hunt.

My walk-in hunts began almost as soon as I moved to Anchorage in 1976. I hooked up with a couple guys who did nearly all their hunting off the road. The Kenai Peninsula was our primary target for goats. Few restrictions existed back then, so roadside billies were hard to come by. We did all right, but long walks were required to get away from heavily hunted herds. Picking a drainage, and pressing a few miles into its headwaters was an effective way to hunt. Most of the time we'd go in without overnight gear, and arrive at the outfit at dusk. With the advent of the Kenai Mountain permit system in 1980, serious goat hunters got a big break. Shooting a mature billy with fresh winter hair from the road became possible. The two-tiered permit system consists of an early

draw hunt and a later registration season in areas where quotas were not filled by drawing hunters. Both hunts present good walk-in opportunities for different reasons.

I like the early season hunt which runs from August 10 to September 30, because it allows a hunter to enter an area where sheep and goats are legal to harvest. If you are holding a goat permit it may be easier to coax a partner along if they realize a ram may be in store for them. A hidden advantage to an early hunt is the possibility of holding out for a billy with exceptional horns, and combining it with a billy that has fresh winter hair.

At the same time, I still hold out until the last few days of the early season to harvest a billy. Late September is a little early for the best hair conditions, but old billies are beginning to look good. The permit system allows billies in all areas of the Kenai to mature, and by late September they are moving below the snow line onto vulnerable mountainsides close to highways.

Upon closure of the draw season on September 30, harvests are tallied and quotas for registration are set. The late season opens October 15. A lot has happened up high in two weeks. Billies' hair has grown to nearly full length. More snow up high has forced them to go as low as they'll get all year. It's perfect opportunity to steal a billy on a very easy hunt. I recall making stalks of less than two hours from the highway. All it takes is studying the mountains you buzz past on the way to the Russian River.

The Kenai Peninsula was also my primary sheep hunting area in the 1970s. My first two rams were harvested there on walk-in hunts. They weren't big rams, and that was the reason most veteran sheep hunters considered the peninsula a curse. Too many eager young hunters like myself harvested the first legal ram that ended up in our sights.

Times have changed on the Kenai since the state went to 4/4, or full curl in 1988. Under the old 3/4- and 7/8-curl system most rams became legal to harvest at four years and six years, respectively. Now most legal rams are eight years old. The new system has put more rams in the mountains, and getting a mature specimen is guaranteed. For decades Kenai sheep were considered inferior. Early biologists unwittingly classed them as a smaller subspecies. Modern studies and the 4/4 regulation prove Kenai rams stand with the best mainland rams. Several 40-inch-plus rams have been taken in recent years on walk-in hunts. Need more proof? Stop at the Cooper Landing Post Office and inspect the ram hanging

above the clerk. I measured the horns at a perfect 42- inches 14inches. That's a lot of ram in any mountain range.

Looking for photographic opportunities when the upper reaches of the mountains get blanketed with snow has helped me realize some interesting things about Kenai rams. Perhaps hunting season also plays a part, but rams show up in strange places in mid-September just before the season closes. Every year I see legal rams in areas accessible from a highway. My brother Greg shot a late-season ram that nearly rolled to his truck a few years back.

Not all Kenai sheep are counting headlights above the highway. In fact, it's possible to get a long way off the road if you want to pack a few extra candy bars and go for a week. Side valleys along the Resurrection system offer chances to harvest a ram. The eastern side of the peninsula has more sheep than many hunters realize. Finding them is mostly a matter of walking and glassing the right mountain at the right time.

Some sheep hunting areas have been set aside for hikers for a long time. My hunting partners Gary McCarthy and Gene Heckler began their 28-year sheep hunting career by walking 26-miles into the heart of the Delta Management area twice. Area 14C, reputed to be the best Dall sheep hunting in the world, must be done by walk-in only.

Holding out for a 14C permit is equivalent to waiting for a middle management position... both could take a lifetime. Luckily, sheep hunters have options. Walkins don't end on the Kenai Peninsula. My early partners hunted both sides of the Glenn Highway. Regions north of Anchorage are primarily better for sheep, but goats also inhabit the western Chugach Mountains.

The land between the rivers has been a walk-in standard for decades. I believe the secret to the area's success begins with limited aircraft access. The narrow valleys and short headwaters don't spread out enough to create favorable forever into jagged headwater glaciers. Sheep on the eastern slopes are numerous and run smaller than on the western slopes where the "few sheep, big rams" theory is in place.

An eastern river breaking the mold is the Chickaloon, a drainage offering perhaps the best walk-in hunt in the Talkeetna's. Limited aircraft access again comes into play. The river originates in the same jumble of peaks as the western rivers—it just takes a different course out of the range. The drainage seems to act as a refuge for rams getting hunted in adjacent drainages, so a late August/early September hunt should be considered.

When hunting the Talkeetna's, take a good look at motorcycle access before you choose a drainage to explore. They create almost the same advantage as airplanes. Thor Prestegaard and I were deep in the Caribou Creek region and had a stalk laid out on a nice ram. Before we could pull it off a couple of motorcycles sped ahead of us and got the ram.

I won't bore you with the cliches about getting in shape and having the best gear money can buy. Actually, I'm proud of the nickname my partners call me. "Moneybags" pertains to my ability to be as comfortable and ready as anybody else with gear costing half the price as the good stuff. Having yourself in reasonable condition will help make the hunt safer and more enjoyable.

Get your pack down to 30 pounds on a long trip. If I can do it, so can you. Bringing a partner whenever possible cuts your inload down. My main diet is freezedried food and lots of water. Highprotein bars are probably a good idea, but I like to kick back and down a good ol' Milky Way after a long day of alpine hunting. I also throw in an ample supply of trail mix, hard candy, and powdered drink to add flavor to the water.

Over the years I've learned to use different packs for sheep and goats. No matter what the mode of transportation, I use an internal frame for goats and an external frame for sheep. The frameless pack is ideal for bucking brush so common on the lower slopes of goat country. The external pack is made for open country, and securing the horns of a big ram to the posts is simple. The exception is when I'm going on a sheep hunt requiring miles of lowland walking-then I'll take the frameless. There will always be secrets in the mountains of Alaska. Sometimes they are right over our noses, and we don't see them. Perhaps your next secret will be discovered on a walk-in everyone else under-looked. Good luck hunting.

landing situations. Chugach rams are known to get hefty, and this area is no different. Every three or four years a book or near-book ram gets harvested.

The eastern Talkeetna's offer several access points for walk-in sheep hunts. Hatcher Pass road allows you to start hiking above timberline to drainages where other access is difficult. In general, you should allow more time compared to Kenai hunts.

The Talkeetna Range is an interesting study in mountain structure. Eastern drainages are short, narrow, and rugged. The western side features sprawling glacial rivers that seem to wind

Two months and 2,500 miles for the Mobile Shooting Sports trailer

On April 20, 2000 the Mobile Shooting Sports trailer began a two-month, 2,500-mile tour journey to deliver more than a dozen Hunter Information and Training Program clinics and workMoran assisted hundreds of youngsters and adults as they participated in simulated hunting scenarios on the laser interactive DART system. The DART system uses

videodiscs



Kirk Lingofelt and Matt Robus, Deputy Director of Wildlife Conservation give instructions during the Shotgun clinic held at the Juneau Gun Club shooting grounds. Students were taught about wounding loss and steel shot.



The mobile shooting sports trailer used the Alaska Ferry System to travel from town to town through the Southeast panhandle.



coordinators, the DART system is an excellent tool to practice basic marksmanship skills and to learn responsible shot placement on game animals. A fully equipped DART system, located in the trailer, is the keystone element of the entire mobile program.



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The trailer and crew took a moment to enjoy the scenery while traveling through Canada to Southeast Alaska.

shops to hunters and shooters of southeast Alaska communities. The Mobile Shooting Sports Program began its maiden tour from its homebase in Anchorage. First stop was the annual Fairbanks outdoor show held at the Carlson Center. At the Fairbanks show, program coordinator Kirk Lingofelt and wildlife technician Matt project footage of hundreds of live, moving game animals on a large screen. Shooters use a special reflective tipped arrow or a firearm equipped with an integral laser to register "hits" on the screen. The DART's computer program then tells the shooter if the hit was in the vital zone of the animal. According to program the Fairbanks show Kirk and

Matt traveled through Alaska and the Yukon headed for Haines. Planning and managing the logistics for such a lengthy trip was no easy task for the Mobile Shooting Sports program coordinator, Kirk Lingofelt. "We had quite a few obstacles to overcome in order to reach southeast Alaska including traveling through Canada and working within the ferry schedule. As any Alaskan carrying firearms and ammunition knows, the Canadian government has their own set of guidelines for transporting

After leaving Participants in the Reloading Clinic held in Juneau at Fairbanks the Juneau Gun Club chronograph their bullets.

> these items through their territory. As you can imagine with the focus of our trip being hunter training, we had quite a large amount of supplies needed to conduct shotgun, reloading and muzzleloader clinics, as well as the interactive DART shooting system." But Kirk did his homework well and reports that Canadian customs were gracious and helpful, permitting passage of the mobile program without a hitch. At Haines the mobile shooting sports crew

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HUNTING FROM THE ROAD IN ALASKA

FROM PAGE 6

er along several different streams, and hunt along the way and on the drift back downstream.

The other advantage of the restriction is that without dozens of ATV's scurrying around the area, the animals will be less spooked and less inclined to vacate the country en masse on opening day. The more distance you put between yourself and the sounds of motorized vehicles, the better. Look over all the listings at the beginning of each GMU's section in the regulations book, and see where you might be able to escape from the crowds.

Permit hunts offer good chances for finding big game along the road system, but if you weren't conscientious enough to get your applications in on time and lucky enough to get drawn, drawing permits aren't an option. And if you don't qualify for a Tier II subsistence tag, a registration hunt is your last resort. Registration permits are issued at Fish and Game offices on a first-come, firstserved basis. Pick up a copy of the **Registration Permit Hunt Supple**ment at ADF&G offices and check out your opportunities. Be advised that these hunts are subject to some special restrictions, and they close when the harvest targets are

THE LOWER KOYUKUK MOOSE

FROM PAGE 5

nonresident opportunity will have to be further reduced or eliminated. Because the plan is based on Alaska subsistence laws in which all Alaska residents are potentially qualified as subsistence hunters, there is potential for subsistence use to increase significantly. If this happens, the general hunts may have to be discontinued and/or a Tier II subsistence allocation system for Alaska residents only may be required.

Thanks to the Koyukuk River Moose Hunters' Working Group

Members of the Koyukuk River Moose Hunters' Working Group were able to achieve consensus on most issues and exercised a great deal of cooperation and compromise. The Working Group has been of great assistance to the Department in recommending goals and objectives for Koyukuk River moose management and proposing actions necessary to protect the moose populations. Several people have noted that Working Group meetings have helped to improve communication between rural and nonrural moose hunters. The recommendations included in the draft Koyukuk River Moose Management Plan are designed to balance the interests of all hunters within sustained yield and the requirements of state and federal law. Members of the Working Group are to be commended for their hard work and dedication to protection of the moose resources of the Koyukuk drainage.

met, some of them in a mere three 2000 hunting season. Following the fall 2000 hunting season and moose survey work, the Department intends to review public comments on the draft plan and conduct an additional public meeting on Koyukuk moose management. The purpose of the meeting will be to evaluate the effects of recent changes to the Koyukuk Controlled Use Area moose hunting regulations, further review the status of the moose population and determine if further changes to the management program are needed.

If you would like to review the entire draft Koyukuk River Moose Management Plan it is available on the Division of Wildlife Conservation web site at: www.state.ak.us/local/akpages /FISH.GAME/wildlife/geninfo/planning/plan.htm

You may also write to one of the addresses below or call (907) 459-7206 to receive a copy through the mail. For further information or to submit comments on the draft plan contact:

Randy Rogers Wildlife Management Planner Alaska Department of Fish and Game Division of Wildlife Conservation 1300 College Road Fairbanks, AK 99701-1599 (907) 459-7335 e-mail: randy_rogers@fishgame.state. ak.us or four days after the hunt opens, so time is often of the essence in registration hunts.

Black bears are numerous in many parts of Southcentral and the Interior, but because of their secretive nature they're often hard to see. A large percentage of the black bears taken every year are taken incidentally while hunters are after other big game. Before hunting an area, make sure you're familiar with all the animals that are present locally, and memorize beforehand which ones are legal for you to take. You don't want to stumble across a potential target and find yourself leafing through the regulations book, trying to find out if the season's open, if you're within the right boundaries, if the animal is legal for you to take, etcerta. Whether or not you were in the Boy or Girl Scouts, Be Prepared!

Another suggestion that's universal among those in the know is that pre-season scouting and preparation are essential. Ask your friends and acquaintances where they've seen animals and had successful hunts. Pick out a couple of areas, and hike into them in the late summer, looking for animals, sign, trails, campsites, glassing areas, etcerta. The more familiar you are with the terrain the better your chances of outwitting an animal and having him spend the winter in your freezer.

Learn to use a GPS unit so you can be sure of your position relative to boundaries. There are many instances of areas within 1/4 mile of a road or other landmark being closed to hunting, so rather than guess, it's a good idea to have a positive fix on your location. This involves practicing with a GPS and a topo map. Prior to the season, and while you're doing your preseason scouting, use the GPS often and learn the idiosyncrasies of the unit you own. They're equally accurate, and the only differences from brand to brand and model to model are bells and whistles. They can also help you find your way back to the trailhead if weather or darkness surprises you in a precarious position. Again, you need to practice with these units if you expect to use them well. Learning to read the directions on the unit and how to find your way home ought to be second nature to you before you embark on your hunting trip. If you plan on walking into a hunting area and shooting a big game animal, be sure you can get it out to your vehicle. Information from ADF&G lists the boned-out carcass weights of a caribou at 55 -to 175-pounds and a moose at 250- to 600-pounds. Sturdy pack frames are an absolute necessity for carting that kind of weight, and if you can convince a friend or two to come along, so much the better. When it comes to learning new places to go, networking isn't just a yuppie buzzword-it can be

invaluable in finding information on hunting opportunities and learning about access chances. Join your local sportsmen's clubs, such as 'Territorial Sportsmen in Juneau, Tanana Valley Sportsmen, Mat-Su Valley Sportsmen, etcerta, and hunting organizations such as the Federation for North American Wild Sheep, the Alaska Outdoor

Common Violations

Road-accessible hunting doesn't necessarily mean road hunting, or at least it shouldn't. Part of the joy of hunting ought to be to get away from mechanical contrivances and use your body and brains to secure food for your family. The regulations that most closely apply to road-accessible hunting areas are that you can't shoot "on, from, or across the drivable surface of any constructed road or highway," you may not "take game from a motorized land or air vehicle if the engine is running or the vehicle is moving," and you may not "drive, herd, or molest game with any motorized vehicle."

An additional problem that surfaces when hunting along the road system is the sense of urgency that's created by too much competition among hunters. According to Trooper Scott Carson, "Violations occur when people get desperate. Hunters get 'buck fever,' and sometimes don't think things through before they act." It's vital in today's sociological climate to observe all game laws scrupulously, to be good sportsmen, and to conduct ourselves responsibly in the field.

Council, etcerta. There you'll meet and talk to like-minded individuals and maybe even land some new hunting partners.

Besides big game hunting, there are plenty of other options to pursue while you're in the field. Small game hunting is available everywhere, and you can hunt birds and bunnies with shotgun, .22 rifle, or handgun. Snowshoe hare populations are just past their 10-year peak, but good numbers are still available in many interior locations. Grouse numbers aren't great, but with some prospecting you can find good shooting. Ptarmigan numbers are quite good, especially in the Denali Highway region, and waterfowl opportunities exist as well. And don't forget to bring your fishing tackle along, as well-late season fishing can be excellent, especially if you find yourself at a lake or stream some distance from the road. In fact, it's not a bad idea to just chuck all of your outdoor equipment into your truck before you leave home, because you never know when a golden opportunity might present itself.

Comments on the draft Koyukuk River Moose Management Plan will be accepted through November 1, 2000.

Comments on the Draft Koyukuk River Moose Management Plan will be accepted through November 1, 2000. This will allow plenty of time for comment and a chance to see how recent revisions to the Koyukuk River moose hunting regulations work out in the fall Glenn Stout Galena Area Biologist Alaska Department of Fish and Game Galena Area Office PO Box 209 Galena, AK 99741-0209 (907) 656-1345 e-mail: glenn_stout@fishgame.state. ak.us

Thank you for your interest in wise management of the Koyukuk River moose resource!

GREENHEADS IN THE NEW MILLENNIUM

FROM PAGE 4

Over the past 4,000 years, hunters have bred and trained a wide variety of bird dogs to search for, attract, point, flush, trail, and retrieve game birds. The common goal of their efforts has been to

If you are interested in raising and training a gundog, a responsibility not unlike parenthood, there is plenty of help available in Alaska. There are three American Kennel Club (AKC) retriever field trial clubs and three North American Hunting Retriever Association

Al	ask	a G	un E)og ()	rgani	zatio	15	
ever Clu	ıb (AKC)		Mid	night S	iun Gun L)og

Alaska Retriever Club (AKC) P.O. Box 100703 Anchorage, AK 99510

Alaska Women's Retriever Club (AKC) P.O. Box 771876 Eagle River, AK 99577

Fairbanks Retriever Club (AKC) P.O. Box 60463 Fairbanks, AK 99706

Interior Alaska Gun Dog Association (NAHRA) P.O. Box 55928 North Pole, AK 99705

ensure an efficient, non-wasteful harvest of wildlife. In our present era of shrinking wildlife habitats, more intensive use of fewer public hunting areas, and the need for more careful conservation of bird resources, hunting with bird dogs not only ensures that we receive the rewards of our efforts in birds for the table, but also adds a satisfying new dimension to our enjoyment in the field.

As I mentioned in the section above on gunning, the unfortunate loss of unretrieved game birds results from the nature of wing-shooting with a shotgun, but most of it is directly related to hunter skills and choices made by hunters. The choice to hunt with or without a dog is an important hunting and conservation decision. The use of trained dogs can reduce the losses of downed waterfowl by up to 70%, depending on hunting conditions. In North America, only 18-20% of waterfowl hunters use dogs, but it is interesting that recorded rates are highest in British Columbia and Alaska.

In a survey of Alaskan hunters, the Department of Fish and Game was surprised to learn that 31% used dogs for waterfowl hunting. The highest level of use was on Kodiak (46%) and the Alaska Peninsula (41%), where sea duck hunting and retrieving in marine waters are common. You can bet that Alaska's duck dogs earn their keep and provide many of the birds for our special winter meals. Even if owning a gun dog is not for your family, most hunters that use dogs welcome the opportunity to work the dog with friends and help others recover birds in the field. A well-trained dog is a joy to watch and is especially appreciated when skim-ice is on the pond, or the tide is running. We should never use retrievers as an excuse for shooting beyond our abilities-we should be grateful for their skills and devotion that enrich our imperfect hunts.

Association (NAHRA) P.O. Box 241291 Anchorage, AK 99524 Peninsula Retriever Association (NAHRA)

Call

To 1

130

Oct

Oct 8

Nov 12

Soldotna, AK 99669 Alaska Bird Dog Association P.O. Box 90701

Anchorage, AK 99509

P.O. Box 443

(NAHRA) clubs located in Anchorage, Fairbanks, and the Kenai Peninsula. AKC has a long history of promoting breeding and training of pure-bred working dogs, and conducting competitive field trials for retrievers. NAHRA focuses on dog work done under simulated hunting conditions, and offers non-competitive testing of dogs against standards of performance. The popularity of training hunting situations for has spawned a major expansion in AKC Hunt Tests and NAHRA events. Alaska's newest hunting dog group, Alaska Bird Dog Association, is providing more opportunities to train and test the flushing, pointing and versatile dogs for upland an waterfowl hunting. Members of all these clubs are avid hunters and can offer a wealth of advice, training opportunities, and hunting friendships.

Throughout this article, I have tried to emphasize the importance of being knowledgeable about waterfowl and the gear used in waterfowl hunting, both for more rewarding hunting experiences and conservation of game bird resources. After all, the responsibility for maintaining waterfowl hunting opportunities and an efficient harvest of migratory birds rests in the minds and trigger fingers of hunters in the field. With

2000 HUNTER EDUCATION COURSE SCHEDULE

Anchorage Area Basic Hunter Education Course Schedle Fall 2000

October 10-21	2 Tues. & 2 Thurs., 2 Saturdays, Location – Rabbit Cree (six sessions total)	6 - 9 p.m., 9 a.m. – 3 p.m. ek Rifle Range
November 7-18	2 Tues. & 2 Thurs., 2 Saturdays, Location – Rabbit Cree (six sessions total)	6 - 9 p.m., 9 a.m. – 3 p.m. ek Rifle Range
December 5-16	2 Tues. & 2 Thurs., 2 Saturdays, Location – Rabbit Cree (six sessions total)	6 - 9 p.m., 9 a.m. – 3 p.m. ek Rifle Range
Hu	For more information nter Information & Traini	call: ng Program

Alaska Department of Fish & Game Anchorage at (907) 267-2373. Or sign up at Hunter Information Center 333 Raspberry Road

Anchorage Area Bow Hunter Education Schedule Fall 2000

Classes held in the Classroom Bldg. at Rabbit Creek Range, Feild shoots are held at the same Location

October	7	Complete course (1:00 pm field shoot) 8:00 am to 5:30 pm
October	14	Complete course (1:00 pm field shoot) 8:00 am to 5:30 pm
October	16 & 18	Classroom ONLY* 6:30 pm - 9:30 pm
October	21	Complete course (11:00 am and 1:00 pm field shoot) 8:00 am to 5:30 pm
Novembe	er 4	Complete course (1:00 pm field shoot) 8:00 am to 5:30 pm
Course Loc	ation: Ral I Ala in	bit Creek Range (Seward Huy near Potter Marsh) For more information call the Iska Department of Fish & Game Anchorage at (907) 267-2373
B 459-7206 seserve yo College	a sic Hunt or 459-73 ur seat, pi Road.	Fairbanks Area er Education Course Schedule Fall 2000 06 to sign up for the following classes. ck up your student packet at the ADF&G office at Cost of class is \$5.00
2-4	Oct 2-3 Oct 4:	:: 6-9 PM 5-8 PM Includes Shoot. Call to sign up for class.

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the level of public scrutiny on hunting and the educational resources that are available to waterfowlers today, there is no room for the excuses that "I can't cleanly kill birds with steel shot", and "I couldn't tell what kind of bird it was when I shot". If you take full advantage of all the opportunities to learn and practice the hunting arts, you can extend your enjoyment of waterfowling throughout the entire year-perhaps to the chagrin of your spouse, employer, and all the relatives that expect you to entertain them. Check out some videos, go to the shooting range, or join a gundog club-it will pay off in green-heads and great memories!

completed at later date if you have completed class work. Next shoot will be spring 2001. Hunter Ed. Bldg. 1501 College Road

Classroom only. Shooting exam must be

9 AM - 6 PM Includes Shoot. Call to sign up for class.

Just show up for shoot at 3 PM if you have completed

Just show up for shoot at 5 pm Oct. 4 if you have

completed class work. Class: Hunter Ed. Bldg.

Shoot: Creamer's Farmhouse

Shoot: Creamer's Farmhouse

class work. Class: Hunter Ed. Bldg.

This schedule is subject to change.

Palmer/Wasilla

Please call the Alaska Dept. of Fish and Game, Palmer office (746-6300) for further information on Basic Hunter and Bow Hunter Education Courses.

Scheduled Basic Hunter Education Course

9 AM - 6 PM

Oct. 3-14 Tuesday/Thursday 6-8:30 pm, Saturday (8am-2pm) Location: (Sign up at the Palmer office)

Juneau/Douglas

For the next available Basic Hunter and Bow Hunter Education courses please contact:

> Alaska Dept. of Fish and Game Douglas office Area Biologist, Neil Barten (907) 465-4267

REGIONAL REPORTS

FROM PAGE 7

The moose population in Unit 14C declined 25-30 percent to an estimated 1,550 by November 1996, due to starvation and vehicle collisions during the harsh winter of 1994-95. Since then the population has rebounded to about 1,900 moose with a ratio of 31 to 37 bulls to 100 cows. In most of the unit, hunting is by drawing permit only. Demand for these permits is high. In 1997 5,939 hunters applied for 220 drawing permits. The number of hunters in the 1990s has ranged from 465-730 with success rates of 21-29 percent. Annual harvests increased steadily during the late 1980s and early 1990s, but began declining in 1992. The average annual harvest from 1993 through 1997 was 124 moose; one-fourth were cows. More moose (about 155) are salvaged after vehicle and train collisions in an average year. Other moose injured by vehicles eventually die but are not salvaged. The winter of 1994 to 1995 was the worst on record, with 239 documented road kills and 22 train kills. Winter habitat appears to be severely over-browsed throughout most of the unit.

In Unit 17 the moose population is stable to increasing because of several consecutive mild winters in the Northern Bristol Bay area. The unit-wide population is estimated at 5,000. Increasing moose numbers coupled with increasing pressure by non-local hunters result in record harvest rates almost every year. Many of the hunters are attracted by liberal caribou seasons. Despite shortened moose seasons and antler restrictions, the harvest keeps going up, especially within the Wood/Tikchik State Park and along the lower Nushagak River. During the past 10 years the reported harvest has increased from 148 to 350.

Caribou- In the spring fall of 1998, the Kenai Mountains in Unit 7 and the Kenai Lowlands in Units 15A and 15B numbered 419 and 124, respectively. These herds, Twin Lakes and Killey River in 15 B East, and the Fox River herd in 15C, numbered 65, 516 and 67 in November of 1998. The Kenai Mountains, Killey River and Fox River herds are open to hunting by drawing permit. Hunting interest is high, however, the caribou are difficult to reach and the annual harvest is low when compared to herds in more accessible areas. The Northern Alaska Peninsula Caribou Herd in Unit 19 remained at about 12,000 during 1995-96, but has continued to decline the past to years to an estimated 9,200 in 1998. The Nelchina Caribou Herd fall population estimate declined from 44,273 animals in 1996 to 31,893 in 1997, then increased to

38,552 in 1998. Part of the decline in 1997 was attributed to poor calf production. In the fall of 1997 the ratio of bulls to cows was 21 bulls to 100 cows and in 1998 it was reported that there were 26 bulls to 100 cows. The total harvest from the Nelchina Caribou Herd for all state and federal hunts in 1996 was 5,601; in 1997 it was 4,027, and the projected take in 1998 was 2,500 to 3,000. Fall hunt conditions have been very difficult the last three years, with caribou spending most of the hunting season in remote parts of the unit, especially the Lake Louise flats where ORV use is limited. Traditional fall ranges such as the Denali Highway were only lightly utilized by caribou in 1996 and 1997, but in 1998 a few more caribou moved north and provided hunting opportunity along the highway. The majority of the caribou harvested along the road system are taken between Sourdough and Paxson on the Richardson Highway. This is the NCH migration corridor between summer and winter range. The last two years the herd has crossed here during late October and early November. Hunt conditions are crowded whenever the herd crosses during the hunting season. This area is also federal land and open to the federal subsistence hunt.

The Mentasta Caribou Herd continues to decline. The spring 1998 census resulted in only 415 caribou observed with only 13 calves to 100 cows surviving to late June. This was typical of the low calf production and/or survival seen in this herd during recent years. The fall 1998 extrapolated population estimate was 535 caribou with 10 calves to 100 cows and 43 bulls to 100 cows.

During 1997 we conducted an aerial survey of a major portion of the Rainy Pass caribou range during sheep surveys of the Alaska Range in Sub units 14A, B, and Unit 16. Observations revealed 1,130 caribou and classified 720 with calves representing 17 percent of the herd. An estimate of the herd is at 1,750 to 2,000.

The Mulchatna Caribou Herd- The Mulchatna Caribou Herd peaked in numbers in 1996 at 200,000 caribou and has declined some since the peak. It has continued to expand its and range, including instances in the fall of 1996 and fall 1998 where groups of Mulchatna caribou travelled as far north as Unit 19D. It appears that the Rainy Pass, Tonzona, and Farewell-Big River Herds are stable to declining at relatively low numbers. The Sunshine Mountain and Beaver Mountains Herds are continuing to decline. The Beaver Mountains Caribou Herd is estimated at a minimum of 129 caribou in 1999. Three recognized herds of caribou are resident in the Kokrines Hills and Ray Mountains. Each herd is associated with and named for a mountain peak within the range of mountains where the caribou calve. The Ray Mountains Herd numbers approximately 1,500 to 1,800 caribou, the Wolf Mountain approximately 600 to 850 caribou, and the Galena Mountain herd 250 to 500 caribou. The Western Arctic Caribou Herd is frequently found in the northern part of GMU 24, and occasionally travels into the western-most portions of GMU 21D and 24. Large numbers of the Western Arctic Caribou Herd have wintered in the Nulato Hills the past several winters. Total annual harvest from the three resident herds seldom exceeds 20..

Elk- The population on the Kodiak Archipelago in Unit 8 has been increasing steadily since 1993 after a moderate decline following severe winters. The 1998 population was estimated at 1,400, including 210 elk on Raspberry Island and 1,190 elk in eight herds on Afognak. Elk have been sighted on Kodiak Island several times during the past decade. The only area where a sustainable population seems to have established itself is on the Kupreanof Peninsula where up to 40 elk have been observed. The Malina Lakes herd is the largest of the Afognak herds, with at least 330 elk. The Tonki Cape herd is the smallest with approximately 35. The density of several herds exceeded two elk per square mile, a level considered near carrying capacity.

Region III

Black Bear- In the Delta Junction area, an accurate estimate of black bear population size and trend is not available in Unit 20D, however, black bears are numerous in the forested portions of the unit. A Unit 20D black bear population estimate was extrapolated from research data in adjacent Unit 20A and resulted in a Unit 20D estimate of 750 black bears. Hunting black bears is popular in Unit 20D and bait stations are commonly used in the spring. Total harvest averages about 20 bears/year.

In the Tok area, black bears are present in all suitable habitats in Units 12 and 20E and population size is estimated from 2,000 to 2,500

ALASKA HUNTING BULLETIN

hunting season. Brown bear mortality in southern Unit 20D, east of the Gerstle River, has not increased despite the tag fee exemption, longer season, and more liberal bag limit.

In the Tok area, Units 12 and 20E population estimates are 350 to 425 (18.0-21.9 bears/1,000 km2) and 475-550 (17.1 - 19.8)bears/1,000 km2), respectively. Population trends are stable but at a reduced level compared to the 1970's due to high harvests during the 1980s and early 1990s. Brown bear numbers were estimated to have declined by 20-30% in portions of Unit 20E where the greatest amount of harvest occurred. In Unit 12 harvest declined in 1989 and has remained consistent allowing the unit population to stabilize. In Unit 20E annual harvests have remained near the 1980s levels but are now more distributed across the unit reducing local population effects.

In the McGrath area, bear populations are apparently moderate throughout the management area, varying in response to habitat quality. Harvest is extremely light in the lowland sub-units where bear densities are lower. In the upland areas (mainly 19B and 19C), harvests appear to be moderate. It appears brown bear populations are slowly increasing.

In the Galena area, the grizzly bear populations of Units 21B, C, D and 24 are believed to have been stable or slowly increasing during the past 10 years based on field observations, nuisance reports, and hunter sightings. Historically, grizzly bears were an important source of food and hides for local residents. Despite liberal seasons, hunting pressure by both local and non-local hunters is low. Annual harvests from Units 21B, C, and D usually total less than 10 bears. Annual harvests from GMU 24 are usually less than 15 bears.

In the Fort Yukon area, an estimated 1430 to 2070 grizzly bears occur in the area, with populations north and south of the Brooks Range estimated to range from 460 to710 and 870 to1360 bears, respectively. The harvest of bears is relatively low compared with estimates of sustained yield, except in Unit 26B, where the estimated harvest quota has been exceeded during the last 2 seasons. Bear populations appear to have increased throughout the area in the last 2 decades and hunting regulations have been gradually liberalized. Drawing permit requirements were eliminated in Units 25A and 26C in 1994 and in 26B in 1996. The number of bears taken changed little in 25A and 26C, but increased harvests in 26B resulted in the reinstatement of permits in 1998. The harvest declined substantially as a result. The bag limit in 25D was changed to 1 bear per year, and the resident tag fee was waived, in 1998. The harvest of grizzly bears continues to be low

in Units 12 and 20E combined.

In the Galena area, bears are numerous in most of Units 21 B, C, D and 24 with suitable forest habitat. Subsistence surveys estimate harvest to be approximately 30 bears in Unit 24, 23 in Unit 21D.

Black bears are common in the Fairbanks area including Units 20A, B, C, F and 25C. There has been an increasing trend in harvest in all units. Spring bear hunting at bait stations is especially popular in Unit 20B. Harvest and hunter effort is high near Fairbanks.

Brown Bear- In the Delta Junction area, brown bear mortality has increased in northern Unit 20D since implementation of the tag fee exemption and longer

Alaska Hunting Bulletin

in this area.

In the Fairbanks area, brown bears are present in all units. Harvest is generally low except for regions of Units 20A and 20B. High harvests resulted in reduced numbers of bears in Unit 20A during the 1980's. Since then the bear population has nearly recovered following a reduction in season length. However, the harvest of female bears still exceeds objectives. Current estimates indicate that the number of adult female grizzly bears in the Unit 20A study area has not reached the prereduction level of 23 bears.

Caribou- The Macomb caribou herd is a small herd ranging primarily in the eastern Alaska Range of southern Unit 20D, however, winter range extends north of the Tanana River and into Unit 12. In the 1980's herd size varied from 700-800 caribou. Herd size decreased in the early 1990's to a low of 458 in 1993 due to severe summer and winter weather and poor calf survival. The Macomb herd was estimated to have 640 caribou in fall 1999. Herd composition was estimated to be a ratio of 22 calves to100 cows and a ratio of 57 bulls to100 cows at that time.

Macomb Plateau Controlled Use Area- The Macomb Plateau Controlled Use Area (MPCUA) was established in southeastern Unit 20D in 1974 to help regulate harvest of the Macomb caribou herd and to protect important habitat on the herd's Macomb Plateau calving grounds from ORV traffic. The Macomb Plateau is the primary calving and rutting area for the Macomb caribou herd and is a relatively small area that would be susceptible to habitat degradation by heavy ORV traffic. Most caribou hunting within the MPCUA boundaries is either walk-in hunting or hunters use horses. A low level of moose hunting occurs along the Alaska Highway, primarily by people hunting from the road or walking a short distance into the MPCUA. The access regulations are not in effect during spring, and a few bear hunters hunt the area during that time.

Fortymile Caribou Herd (FCH)- During the 1900s, Fortymile Caribou Herd size and distribution fluctuated dramatically. During 1920 it was estimated to be 568,000 caribou and was known to range between Whitehorse, Yukon and the White Mountains, north of Fairbanks. Until the late 1960s, the herd was known to range between central Yukon and the White Mountains. The herd's population low occurred in 1973 when only about 6,000 caribou remained. Since the decline in the late 1960s and early 1970s, the Fortymile herd no longer migrates across the Steese Highway and rarely travels into Yukon using < 25% its traditional range. Herd numbers increased during the late 1970s and 1980s at annual rates of 7% - 10% reaching about 23,000 caribou by 1989. Between 1990 and 1995 the herd remained stable due to adverse weather conditions and predation, primarily by wolves. The herd increased by 4% in 1996, 10% in 1997, 20% in 1998, and 7% in 1999. Both optimal environmental conditions and reduced predation contributed to the herd increase. Range size remains < 30% of its traditional size. Harvest has been intentionally held low since 1973 to encourage herd growth. Beginning in 1996, annual harvest has been maintained at 150 bulls.

Chisana Caribou Herd- The Chisana herd is a small, mostly nonmigratory herd. Its primary range encompasses the Nutzotin and northern Wrangell Mountains between the Nabesna (Alaska) and Generc Rivers (Yukon, Canada). During the 1980s the Chisana herd grew from an estimated 1,000 caribou to about 1,900 caribou in 1988. Since 1988 the herd has declined rapidly and currently numbers 350-375 caribou. Calf recruitment since 1988 has ranged from an average ratio of 6 calves to 100 cows per year. In 1994 all harvest of Chisana caribou in Alaska was stopped. Between 5 and 20 are taken annually in Yukon by subsistence users.

Central Arctic Herd (CACH)-The Central Arctic Caribou Herd numbers about 19,500 and ranges primarily in GMU 26B. Herd size has remained relatively stable since 1995. Annual harvest is estimated at between 450 to 550 caribou. Most of the harvest is by nonlocal Alaskan residents.

Porcupine Herd (PCH)- The Porcupine Caribou Herd numbered about 129,000 in 1999. The highest population recorded was 178,000 during 1989. The most likely cause for the decline in numbers since the 1989 census is reduced calf production or survival during 1991 to 1993 due to adverse weather. The herd migrates seasonally between Units 26C, 25A, 25B in summer and the Northwest Territories and Yukon in Canada during fall and winter. The population should be monitored closely during the next 2 to3 years. A continuing decline could eventually lead to proposals to reduce harvest of females. The Porcupine Caribou Herd is lightly hunted, and harvest had little effect on recent population

bou may be taken during a fall season by harvest ticket or during the winter by one of two winter registration permit hunts. Motorized access is permitted in the February registration hunt, but prohibited in the March registration hunt. The herd appears to be increasing and was little affected by the hard winters in the early 1990's that caused some other interior herds to decline.

Moose- Moose are distributed throughout Unit 20D with an estimated 4,900 to 7,200 moose in fall 1999. Approximately 60% of the moose are south of the Tanana River and 40% are north. Southern Unit 20D has an estimated overall winter density of 2.7 moose per square mile and moose calf survival is generally good. An abundance of good habitat has been created in the last 15 years from land clearing and several large wildfires. Access for moose hunters is good with numerous roads and trails. During the 1998 general hunting season, 474 reported killing 139 hunters moose. Northern Unit 20D has an estimated winter density of 0.6 moose per square mile and moose calf survival is generally poor. Access for hunters is good along several major rivers, but poor away from the rivers. During the 1998, hunting season, 274 hunters reported killing 80 moose.

The moose population in Unit 12 has increased slowly from 1982 to 1989 and remained relatively stable during 1989 through1993, and due primarily to increased calf survival, grew slightly between 1994 and 1997. The most substantial increase occurred in the northwest portion of the unit within the area affected by the Tok wildfire. Overall, moose densities ranged from 0.03/mi2 (10/1000 km2) in the Northway Flats to 2.3/mi2 (888/1000 km2) along the north side of the Nutzotin Mountains. Between 1997 and 1999, calf and yearling bull recruitment declined and the population remained stable or declined slightly. The 1999 estimated population range was 3500 to 4000 moose.

Hunter participation and harvest has increased by 20% and 34%, respectively since 1995. Annual reported harvests during the past five years (average=123/year) are the highest reported since 1982. Most of Unit 12 is difficult to access and harvest has little effect on the unit bull population. The unit wide bull:cow ratio exceeds the population objective (40/100 cows). Most moose in Unit 12 are harvested along the Tok, Little Tok and Tanana Rivers in western Unit 12 where access is easiest. In these areas, bull:cow ratios have declined between 20 and 30:100 cows. In response to the declining bull population in the Little Tok River drainage, a spike/fork or 50-inch regulation was enacted in 1993.

increased 5% to 9% annually reaching a density of 0.33 to 0.49 moose/mi2. Between 1988 and 1999, the population growth rate slowed considerably and was 0.48-0.58 estimated at moose/mi2 in fall 1999. Moose numbers are the greatest within two 500,000 acres areas that were burned about 30 years ago but still do not exceed 1 moose/mi2 indicating predation is still limiting but possibly moose numbers can reach the upper levels of this equilibrium in large areas of high habitat quality. Under current predator levels, the moose population is expected to remain at or below current densities.

The hunter participation rate and harvest has increased in Unit 20E. Since 1992 the number of hunters has increased by 67%. Harvest increased substantially in fall 1995 and the 1995-1999 average is 85% higher compared to the previous 5 years.

Because of the vast size and complex habitat and weather patterns of the McGrath area, the status of various moose sub-populations varies considerably from place to place. In sub-unit 19A, moose populations are stable or slightly declining probably because of predation, especially by wolves. Moose populations in 19B are probably declining at relatively low densities, because of predation by wolves and bears. The 19C population appears to be stable or slightly declining at relatively low densities. In subunit 19D, moose estimates indicate further declines even during relatively easy winters of 1996,1997, and 1998. This years heavy snows will exacerbate these declines. In subunit 21A, moose populations are relatively stable at moderate densities, as are populations in Unit 21E.

Moose have been found in Units 21B and 21C throughout historic times, but are relatively new additions to the fauna of Units 21D and 24. Local residents reported first observing moose tracks in Units 21D and 24 during the 1930's. Colonization of moose in those areas was slow until federal predator control efforts in the 1950s allowed rapid expansion of local populations. Moose densities range from the low to moderate over most of the area, with very high densities in localized areas of high quality habitat. Trend Count Area surveys conducted in 1998 and 1999 showed declining calf to cow ratios and yearling bull to cow ratios in 1999 were also down. Densities in most trend count areas were also lower. During the 1998-99 regulatory year 95 hunters harvested 57 moose in Unit 21B, 36 hunters harvested 21 moose in Unit 21C, 747 hunters harvested 402 moose in 21D, and 397 hunters harvested 230 moose in Unit 24. Moose are distributed throughout the Fort Yukon area (Units 25 A, B, and D) and are an important resource for local communities. However, population density is low

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changes. Total harvest in Canada and Alaska is approximately 2,500 animals, with most being taken by local hunters.

Delta Caribou Herd- This herd declined dramatically in the early 1990's prompting closure of a popular hunting season and implementation of a ground-based wolf control program. The herd is currently fluctuating near its recent low levels (about 3500 to 4000 animals) with no clear trend in population size. Harvest ranges between 22 and 50 bulls per year.

White Mountains Caribou Herd- This small herd numbers roughly 1500 and primarily inhabits Unit 25C. It receives little harvest because of poor access. Cari-

Between 1981 and 1988, the moose population in Unit 20E

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MOBILE SPORTS SHOOTING TRAILER TRAVELS SOUTHEAST

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passed a major test and managed to maneuver the 61 foot long trailer and its one-ton tow rig onto the ferry Matanuska for a short ferry ride to Juneau.

Juneau

With the assistance of cooperative ferry personnel, the crew managed to unload the Mobile system the similar by one of two winter registration, pennic hause. Motor

putting a large trailer on and off the ferry, the Mobile Shooting Sports trailer arrived in Ketchikan to present a series of clinics including nontoxic shot and waterfowl shooting skills, bear hunting, and a centerfire rifle reloading clinic. Lee Rogers, south-central regional hunter education coordinator joined Matt Moran, area biologist Boyd Porter, hunter education instructor Michael Lord, and Jon Hayes in



At the Shotgun clinic in Sitka, Ryan Nichols checks patterning performance by counting the number of pellets within a thirty-inch circle.

without a hitch. After living through the experience of maneuvering the trailer on and off the ferry, Kirk Lingofelt and wildlife technician Matt Moran worked with Polly Hessing of the Douglas Fish and Game staff to deliver reloading, nontoxic shot waterfowl, and muzzleloader clinics. Kirk and Matt were indebted to Scott and Mona Yarnell of Rayco Sales and key members of the Juneau Gun Club for their special efforts in getting the word about the clinics out to local sportsmen and women. The Juneau Gun Club hosted and provided essential support for the nontoxic shot and waterfowl shooting skills clinic, which was well attended. Fish and Game's Deputy Director Matt Robus, a long time supporter of waterfowl hunter education, assisted Kirk and Matt with the nontoxic shot clinic. Between clinics the Mobile Shooting Sports team also set up the laser interactive DART system for public participation at the local mall. A sunny and warm April Sunday provided for a great turnout of Juneauites willing to try their hand at big game "hunting" with the laser sensor rifles. "We had over a hundred people see the trailer and show up to try out the interactive D.A.R.T. system and learn about what hunting clinics were available in Juneau," said Kirk Lingofelt.



Students receive instruction on how to properly interrupt chronographing information during the Reloading clinic in Petersburg from Kirk Lingofelt, Mobile Program Coordinator (front).

organizing and conducting the Ketchikan clinics. Lee and Matt praised the members of the Ketchikan Rod and Gun Club for their invaluable assistance and hospitality in promoting and hosting and non-toxic shot and waterfowl shooting skills clinics. The bear hunting clinic was held at the request of biologist Porter who hopes that the information presented will begin to help in decreasing the wounding loss on black bears in Game Management Units 1 and 2. sources beaming of white

who, in addition to being an avid sportsman, serves Wrangell as an EMT and firefighter. Matt reported many favorable comments from those participating in the DART event. Several local sportsmen also attended the two day muzzleloader clinic presented by Matt and earned their muzzleloader hunter certification cards.

Petersburg

Petersburg was the next stop . for the Mobile program. In Petersburg the mobile shooting sports program team of Kirk Lingofelt and Matt Moran conducted centerfire rifle reloading, muzzleloader hunter certification, and nontoxic shot clinics. Members of the Petersburg Rod and Gun Club were generous with their time and provided much needed assistance in preparing for the clinics. In addition to conducting skill clinics, the Mobile Shooting system was involved in Little Norway festivities celebrating Norwegian Day. Nearly one hundred people turned out to try the laser DART

thrower aids throwing a high volume of clay targets needed for such clinics.

Sitka

On the trip to Sitka, engine problems on the ferry Aurora resulted in having to backtrack to Juneau for repairs. However, the delay was short-lived and did not stop the Mobile Shooting trailer from delivering their scheduled courses in Sitka. During their week long visit to an unexpected sunny Sitka, Kirk Lingofelt and Matt Moran worked to deliver reloading, nontoxic shot, and muzzleloader certification clinics. "We couldn't have pulled this off without the support from the community and the Sitka Sportsman's Association," remarked Lingofelt. "I really appreciated Lynn Shipley's help in spreading the word and allowing Fish and Game to use the Sitka's Sportsman's Association facilities," said Lingofelt. The Mobile Shooting Sports program also set up the interactive DART system in town at the Bicentennial Hall for public participation.

Haines

The Mobile Shooting Sports trailer rolled into Haines to conduct a nontoxic shot and waterfowl shooting skills clinic and to display the laser DART system for public use. Kirk Lingofelt and Matt Moran made arrangements with Charles Dewitt to use the facilities at the Haines Sportsman Association. Kirk and Matt commended Charles for his enthusiasm for the



Ketchikan

Continuing to master the art of

Wrangell

According to wildlife technician Matt Moran, it seemed like most of the community of Wrangell came out to experience the laser DART system while it was stationed outside the local grocery store. Matt received lots of local support from Dave McGuire During the Shotgun clinic held in Haines at the Sportman's Association, participants watch as Kirk Lingofelt and Matt Moran instruct on proper shotgun techniques.

system during the festivities of the day. Those who attended the nontoxic shot clinic especially enjoyed the opportunity to improving their wing shooting skills. According to Kirk Lingofelt, mobile program coordinator, the mobile system's Autosporter automatic clay target Mobile Program and his efforts to "get the word out."

The Haines Summer Solstice Festival, held at the Southeast Alaska State Fairgrounds, provided Kirk and Matt the opportunity to display the Mobile Sports Pro-

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WHERE ARE YOU HUNTING THIS YEAR?

FROM PAGE 13

compared to other areas in Interior Alaska, ranging from 1 moose per 3 to 10 square miles in most areas. There is widespread local concern regarding apparent declines in Units 25B and 25D, which include the best habitat. Survey data indicate moose numbers on the eastern Yukon Flats have declined during the last several years, while those in the western part of Unit 25D have been fairly stable. Surveys in 25D, the most heavily hunted subunit, have generally found modest calf/cow and high bull/cow ratios. There are an estimated 3000 to 4000 moose in Unit 25D.

In Unit 26 B and C, moose numbers declined dramatically between 1992 and 1995, when low calf survival and high mortality of adults reduced numbers by about 60%. The population has remained at a low level, and the total number of moose is probably less than 500. Calf survival has improved in the last two years, but total numbers are still low compared to the last 3 decades.

UNITS 20A, B, C, F and 25C (Fairbanks) Moose numbers appear to have stabilized in Unit 20A and in the MFMA in Unit 20B. Hunting opportunity and harvests have correspondingly stabilized at high levels in those areas, as well as, in the Fairbanks Management Area. Approximately 3000 hunters annually hunt in Unit 20B and success rates are low. However, effort, harvest, and success rates have improved modestly in the last few years, suggesting an improving trend in herd status. Moose population levels in most of 20C, 20F, and 25C are low and no trends in population parameters are apparent from harvest data or incidental observations.

Sheep- There are three distinct sheep areas in Units 12 and 20E: 1) northern Wrangell, Mentasta, and Nutzotin Mountains (WMN); 2) Tok Management Area (TMA); and 3) Tanana Hills (TH).

The sheep population in WMN traditionally exists at relatively high densities in typically rugged, glaciated habitats. This area produces rams with horns below average size, compared with other sheep populations in Alaska. This population grew throughout the 1980s, declined during the early 1990s, and since 1994, appears to be stable or growing slowly. This area receives the highest harvest in the state; 170-270 rams per year.

Sheep within the TMA exist at low to moderate densities but produce large-horned rams. This population grew during the 1980s until 1992. Due to adverse weather, the sheep population declined during 1992 and 1993. Weather conditions were mild to average between 1993 to 1998 and based on lamb and yearling survival, the population increased slowly. The 1999/2000 winter was mild in terms of temperature but snow depths were greater than average.

The Tanana Hills sheep population occurs at low density and is disjunct due to the physical geography of the Tanana Hills which is atypical sheep habitat. Most of this area is very difficult to access and due to sheep distribution, very difficult to hunt. The portion of the area accessible from the Taylor Highway was designated a controlled use area, and the most accessible fly-in area is managed under permit.

Dall sheep populations appear to be relatively stable in the Alaska Range west of Denali Park in Units 9, 16, and 19. The Alaska Range West provides habitat for 4,000 to 4,500 Dall sheep. Lamb: ewe ratios in the population average about 30 ewes to 100 rams, and legal ram to ewe ratios average about 15-18 to 100. Hunter harvest is relatively stable, as has success rate and size of harvested rams.

Sheep are widespread in the eastern Brooks Range, with the highest densities occurring in the northern drainages. An estimated 13,000 sheep occupied the area in 1985, but reports indicate numbers declined by approximately 40% during the late 1980s and early 1990s due, in part, to severe weather and poor lamb survival. Sheep harvest has declined from over 250 annually in the late 1980s to less than 150 each year, but the area is still popular among sheep hunters. A small number of sheep are taken in a winter registration hunt in 25A and 26C.

Sheep numbers in the Alaska Range, Unit 20A declined in the early 1990's from 5000 to about 2000 sheep, estimated in an extensive survey in 1994.

PUTTING THE "M" IN MOBILE

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gram trailer to a large number of community residents and to hold an open house featuring the DART system. Kirk and Matt reported that many attending the Festival took time to try their hand at the simulated hunting scenarios.

Tok

Tok was the final community scheduled for the Mobile system before heading back to home base in Anchorage. The Mobile Shooting Sports trailer stopped in Tok to provide local hunters and shooters with a reloading clinic. Those who participated in the clinic learned how to reload and chronograph their "handmade" ammunition. Participants really enjoyed the clinic and appreciated the efforts made by the Alaska Department of Fish and Game to take the time and deliver education to more rural communities.

Tetlin

Carl Lunderstadt, Assistant Refuge Manager of the Tetlin National Wildlife Refuge, partnered with the Dept. of Fish and Game to make arrangements to deliver a nontoxic shotgun with steel shot clinic in the village of Tetlin about 20 miles southeast of Tok. The ongoing partnership between the U.S. Fish and Wildlife Service and the Department of Fish and Game has delivered non-toxic shot clinic to hundreds of rural sportsmen and women at dozens of villages across Alaska.

According to Carl and Kirk Lingofelt, they had a great turnout for the classroom portion of the clinic and many stayed to try their hand shooting clay birds during the waterfowl shooting skills portion of the clinic. Many of the village youth were involved in the clinic and were very successful in shooting clay targets. "I would like to thank the townspeople of Tetlin for the support they showed toward Fish and Game," said Kirk Lingofelt.

The Mobile Shooting Sports trailer returned to Anchorage after nine weeks on the road. All of the scheduled clinics were conducted and lots of people took advantage of this new and exciting program Hunter Information and Training has to offer. "The Mobile Shooting Sports Program would not be possible without the support of many individuals, groups, and organizations. Wayne Regelin, Director of the Division of Wildlife and Matt Robus, Deputy Director have been ardent supporters of the program. Our industry partners including Browning and Winchester, Hodgdon Powders, Nosler Bullets, Redding Reloading, Savage Arms, Swarovski Optics, Knight Muzzleloading Rifles, and Leupold have generously equipped the trailer with top-quality equipment for use by Alaskan recreational shooters and hunters," states Hunter Information and Training Procoordinators John gram Matthews and Tony Monzingo

Be sure and look for the Mobile Shooting Sports trailer again at Alaska State Fair in Palmer, September first through the fourth. The interactive laser DART shooting system will be featured and program staff will be present to answer questions about the full range of activities offered by the Hunter Information and Training Program including upcoming clinics.



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WINTER APPLICATION PERMIT FOR SHEEP AND KOYUKUK MOOSE DRAWING PERMITS

If you hope to win a permit for any of the drawing permit sheep hunts statewide OR Koyukuk moose for the 2001 season, you MUST apply in the winter drawing. For many years, the traditional application period for all drawing permit hunts has been the month of May. The Department of Fish and Game has now established a winter application period for specific drawing hunts. The application period will be Nov. 1-Dec. 6 and winners will be notified in January. The same rules will apply as in the regular May application period.

There will continue to be a May application period for all other species and for other moose drawing permits, but you will not be able to apply for the Koyukuk moose hunts or any sheep hunts during the May 2001 application period. Hunters who fail to apply for those permits in November-December will have no chance of getting a sheep permit for the fall 2001 season.

The change resulted from two main reasons. First, for many years hunters have wondered why they cannot find out sooner if they have won a drawing permit for the upcoming season. That was especially true for sheep hunters. With the season beginning Aug. 10, the traditional mid-July notification date leaves them little time to arrange the logistics essential for a good sheep hunt.

Second, due to the increasing popularity of the moose hunts in the Koyukuk area, a working group was formed to draft proposals to address the problems. (See Lower Koyukuk Moose Hunt article on page 1) These proposals were submitted at the March 2000 Board of Game meeting and the Board established new moose drawing permit hunts for the Koyukuk Controlled Use Area in Unit 21(D) and 24.

One of the recommendations from the group was for a drawing permit hunt with a winter drawing so hunters would know well in advance whether they would have a permit the coming year. Like most sheep hunts, a Koyukuk moose hunt entails significant logistical challenges. The Alaska Department of Fish & Game and the Alaska Board of Game agreed to the winter drawing for the Koyukuk hunts. ADF&G saw it as an opportunity to also address the needs of sheep hunters.

Notification letters will be mailed at the end of January and the drawing results will be posted on the Alaska Department of Fish & Game website as soon as they are available.

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