

Mountain Goat Identification Quiz



Mountain Goat Identification Quiz



Test your skills at telling male (billy) and female (nanny) mountain goats apart by taking the ADF&G Mountain Goat Identification Quiz. This quiz will help you avoid accidentally harvesting nannies. Harvesting nannies can have significant negative effects on mountain goat population productivity, and can result in early hunt closures and more restrictive regulations in future years. A little practice can go a long way towards ensuring a satisfying hunting experience. We also recommend carrying a good spotting scope when mountain goat hunting. **When mountain goat hunting... getting close and being patient are key!**

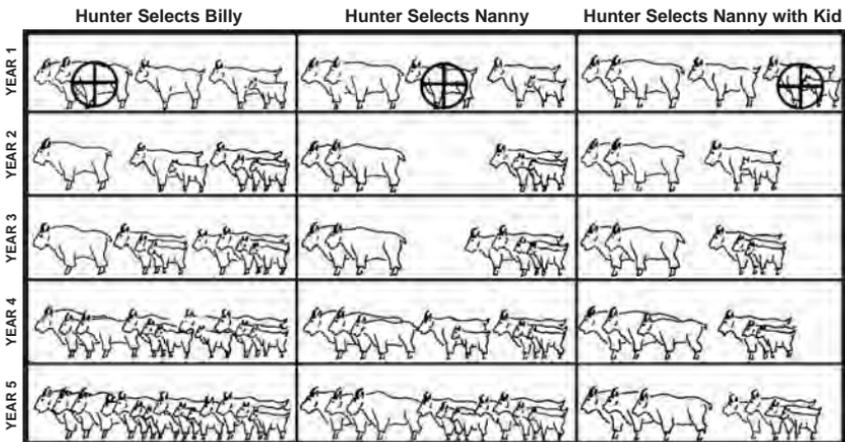
To improve your chances of harvesting a billy, use this quiz and other online resources to study the characteristic differences between nannies and billies. For additional information about mountain goat natural history, judging the sex of goats by horn shape, guide requirements and the online mountain goat quiz, visit the Division of Wildlife Conservation website at www.hunt.alaska.gov.

Once you've reviewed this material and have taken the quiz, please consider sharing this booklet with interested friends and other mountain goat hunters. The center pages of this guide can be removed and taken into the field.

Why Avoid Harvesting Nannies?

Selective harvesting of adult billies makes sense and is a good management practice. High harvest of nannies reduces the productivity of the herd. If you kill a nanny, you also take away offspring she would have produced to replace those animals that die from hunting and all other causes. The goat population may decline to a level that allows very little or no hunting opportunity. If hunters take the time to select billies instead of nannies, more goats will be available for harvest. In fact, by the end of a seven year period a small group of goats could double in size if nannies are not killed and the winter weather is moderate. The chart below illustrates the benefits of harvesting billies and passing up nannies.

BENEFITS OF HUNTER SELECTION



You are part of wildlife management in Alaska. Do your best to select a billy to help provide maximum goat hunting and viewing opportunity for future years.

Management Practices

Management of mountain goats is closely monitored. The following general guidelines are used to help determine appropriate harvest levels. A point system is used where a harvested billy = 1 point, and a harvested nanny = 2 points. In specific hunting units, a total number of harvest points is established allowing roughly 6 harvest points per 100 goats. For example, in an area with an estimated population of 100 goats, no more than 6 billies (6 pts) or 3 nannies (6 pts), or any combination of points not exceeding 6 per 100 goats may be harvested. If a hunter harvests a nanny, it disproportionately reduces the harvest opportunity for another hunter. This system helps ensure a sustainable population of mountain goats and also provides greater hunting opportunities for everyone.



Hunting Tip: Survey the terrain carefully before shooting. Is retrieval safe? Consider avalanche danger, cliffs, rock fall, approaching darkness, and slippery descents. Can I retrieve the goat? Will the fall destroy the goat? Often a goat will roll, slide, or bounce down even the slightest slope.

Mountain Goat Hunting

Mountain goats live in terrain that is steep and difficult to access, which can make hunting quite challenging. Consider the safety of both yourself and your hunting party while hunting goats. Since mountain goats depend upon extremely steep “escape terrain” to survive, you need to be prepared for hunting in typically wet, steep areas that are prone to quickly changing weather conditions. Rain, fog, clouds, snow and darkness can quickly turn a casual alpine hunt into a struggle just to make it back to your starting point safely. Mountain goat hunting is unique and demanding.



Consider the following tips:

- Make the safety of yourself and your hunting party your top priority.
- Let someone know where you are going and when to expect your return.
- Weather can change quickly, be prepared to deal with severe changes such as heavy rain, thick fog or snow.
- Be well versed in survival techniques and navigation skills.
- Study topographic maps beforehand and seek local knowledge.
- Carry a topographic map and compass. Know how to use them.
- If you plan to use a GPS, it is still recommended that you carry a current topographic map and compass. In white-out conditions, a GPS enables you to precisely backtrack your route. Don't forget extra batteries.
- Consider carrying a SAT phone or VHF radio in case of emergencies.
- Plan your hunt. Set a turn-around-time and stick to it.
- Know your physical limits and hunt within your ability.

Mountain Goat Characteristics

Males

Horns:

- * Thicker throughout length
- * Uniform, gradual curvature
- * Larger bases
- Bases closer together
- Enlarged glands behind bases



Group Size and Composition:

- Often solitary or groups of 2-3



Body Size and Shape:

- Stocky body
- Roman bulge to nose
- Pronounced shoulder hump
- Pronounced pantaloons



Sexual Organs:

- Sometimes organs are visible

Urination Posture:

- * Stands stretching



Note: Characteristics marked with a star (*) are the most reliable.



It is important to note that these characteristics are representative of adult male and female goats. When viewed together, the relative difference between body size of yearling males and adult females is often minimal. Yearling males are not yet fully grown and may be confused with adult females.

Mountain Goat Characteristics

Females

Horns:

- * Thin
- * Sharp curve near the tip
- * Small bases
- Wide distance between bases



Group Size and Composition:

- * Kids and large groups

Body Size and Shape:

- Smaller body

Urination Posture:

- * Squats, rump near ground



Consider all of these criteria as a checklist when identifying a goat. Go through each of them to see which ones apply to the animal you are observing. Often this will enable you to differentiate the sex of the animal reliably.



#1

Billy or Nanny?



Answer #1

Nanny and kid

Clues:

Straight, thin horns with wide space between bases.

Take your time to watch the animal and be 100% sure there is no kid. It is illegal to harvest a nanny that has a kid!

Hunting Tip:

Quick shots can result in shooting an animal with offspring. Kids are sometimes bedded down or tucked close behind the nanny. While walking or feeding, a kid can be obscured by vegetation or topography. Patience is vital!



#2

Billy or Nanny?



Answer #2

7-year old billy, August

Clues:

Bases are large and close together, thick through entire length, gradual curve throughout entire length of horns.

Hunting Tip:

Use a weapon that has been carefully sighted in and practice using a rangefinder to increase your distance judging skills.



#3

Billy or Nanny?



Answer #3

Nanny, July

Clues:

Straight, thin horns with wide space between bases.

Hunting Tip:

The *Hunt Alaska* book is an excellent resource and is available by mail, online or at area offices.



#4

Billy or Nanny?



Answer #4

Yearling nanny, July

Clues:

A yearling's horns are similar in length to its ears.

Hunting Tip:

Take the time to consider whether you'll be able to safely retrieve your goat in the terrain you are hunting.



#5

**Which is the billy?
Which is the nanny?**



Answer #5

Top Photo: 11-year old nanny

Bottom Photo: 7-year old billy

Clues:

Both animals are sitting in similar positions, making it appear to be the same animal. Notice the straight, thin horns on the nanny vs. the thick, more gradual curve on the billy's horns. Large scent glands are also visible behind the horns of the billy.



#6

Billy or Nanny?



Answer #6

Yearling and nanny, July

Clues:

Nanny has straight, thin horns with wide space between bases.

Hunting Tip:

It is difficult to distinguish between yearling billies and nannies without viewing the sex organs.



#7

Billy or Nanny?



Answer #7

Late season billy

Clues:

Bases are large and close together, thick through entire length of horns. Longer hair in late season can make it more difficult to see genitalia.

Hunting Tip:

Be aware of avalanche danger. Consider if the goat is retrievable before taking your shot.



#8

Billies or Nannies?



Answer #8

3 nannies and 2 kids, July

Clues:

Straight, thin horns with wide space between bases, pronounced curve towards tips, offspring close by.

Hunting Tip:

Practice shooting the same weapon you will use on your hunt at a rifle range as well as in the field, especially during the weeks leading up to your hunt.

Before you take the shot consider...

<i>Consider</i>		<i>Do NOT shoot if..</i>
Sex ID	Have I watched the animal long enough to ID the sex?	<ul style="list-style-type: none"> • A kid is present. It is illegal to shoot a nanny with kid
Shot Distance	Is the shot too far? Am I close enough to ID the sex of the goat?	<ul style="list-style-type: none"> • Shot is beyond my practiced ability • Too far away to ID the sex of the goat or see any offspring
Unobstructed Shot	Can I clearly see the target and what is beyond?	<ul style="list-style-type: none"> • Goat is obstructed by trees, brush or rocks • Can't see beyond the target or the target is skylined
Shot Placement	Do I have a clear shot at the vital zones?	<ul style="list-style-type: none"> • Goat is running or swiftly moving • No clear shot of vital zones: heart/lung
Retrieval	Are there any dangers that I need to consider? Where will the animal fall or slide?	<ul style="list-style-type: none"> • Avalanche zone or dangerous cliffs • Approaching darkness or severe weather • My decision puts myself and/or my hunting party in danger

Improve your chances of taking a billy

- Get close
- Be patient
- Take the time to study the goat's physical characteristics
- Use good optics

Mountain Goat Characteristics

Males

Horns:

- * Thicker throughout length
- * Uniform, gradual curvature
- * Larger bases
- Bases closer together
- Enlarged glands behind bases



Group Size and Composition:

- Often solitary or groups of 2-3



Body Size and Shape:

- Stocky body
- Roman bulge to nose
- Pronounced shoulder hump
- Pronounced pantaloons



Sexual Organs:

- Sometimes organs are visible

Urination Posture:

- * Stands stretching



Note: Characteristics marked with a star (*) are the most reliable.

It is important to note that these characteristics are representative of adult male and female goats. When viewed together, the relative difference between body size of yearling males and adult females is often minimal. Yearling males are not yet fully grown and may be confused with adult females.

Mountain Goat Characteristics

Females

Horns:

- * Thin
- * Sharp curve near the tip
- * Small bases
- Wide distance between bases



Group Size and Composition:

- * Kids and large groups

Body Size and Shape:

- Smaller body

Urination Posture:

- * Squats, rump near ground



Consider all of these criteria as a checklist when identifying a goat. Go through each of them to see which ones apply to the animal you are observing. Often this will enable you to differentiate the sex of the animal reliably.

Before you take the shot consider...

Darkness or severe weather approaching...

- Can I track the animal if I wound it?
- Can I safely get back to camp with the goat?
- Am I prepared to sleep on the mountain?
- Am I prepared for heavy rain, thick fog or deep snow?

If I leave the animal overnight...

- Can I gut the animal and move the carcass far away to prevent bears from moving in on the meat?
- Meat salvage takes precedence over collecting the hide and skull.
- Can I find my route back to the animal?
- Am I prepared to deal with bears on the carcass in the morning?

Where will goat fall, slide or run when I shoot?

- Are there cliffs directly below the animal?
- Will I need to cross an avalanche zone?
- Do I need to cross swift moving water?



Alaska State Regulations mandate that the horns, hide or antlers may be taken out of the field ONLY after the meat is packed out.



#9

Billy or Nanny?



Answer #9

7-year old billy, March

Clues:

Gradual curve to entire length of horns, horns are thick throughout length, bases are large and close together.

Hunting Tip:

Hair and beard length will vary depending on the time of year and age of the animal, and is not a good indicator of sex.



#10

Billy or Nanny?



Answer #10

Nanny, July

Clues:

Straight, thin horns, pronounced curve towards the tips.

Note:

This photo was taken in mid-summer, notice the difference between the coat of this goat and those in photos #7 and #9, which were both taken in late winter.



#11

**Billy or Nanny?
Would you take this shot?**



Answer #11

Nanny with kid

Note:

This nanny had a kid hidden in the brush and you can't tell if the nanny was spooked by a hunter approaching from the opposite direction.

Hunting Tip:

Do not shoot at running or swiftly moving animals or take a skyline shot. It is important to know your target and what is beyond.



#12

Billy or Nanny?



Answer #12

Young billy

Clues:

Gradual curve to entire length of horns. Pronounced hump on back.



#13

**Billy or Nanny?
Would you take this shot?**



Answer #13

11-year old nanny, August

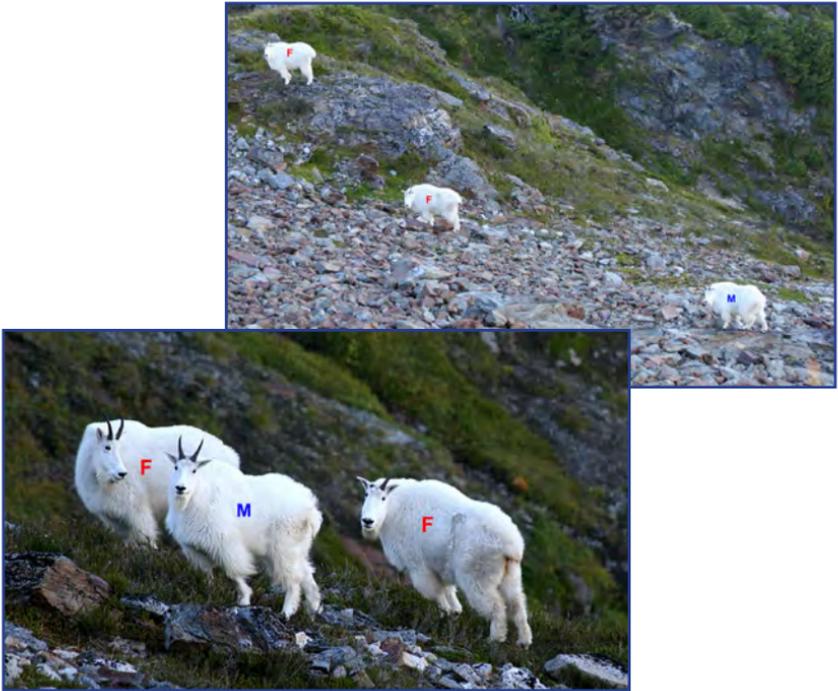
Note:

This nanny is quickly moving away and only presents a skyline shot with limited access to the vital organs. At a different angle, you would also be able to see an ADF&G GPS collar. Although not illegal, the department strongly discourages hunters from shooting collared goats. If a collared goat is taken, please return the collar to an ADF&G office.



#14

Billies or Nannies?



Answer #14

Two nannies and one billy

Note: It is difficult to identify the sex of the goats in the top photo compared to the bottom. The distance and backdrop pose challenges in identifying the sexes. A good scope and taking the time to observe more closely would increase positive identification. These two photos are the same animals, but in different configurations. In the lower photo, shooting at the billy could result in hitting the nanny standing behind it.



#15

Billy or Nanny?



Answer #15

Billy

Clues:

Gradual curve to entire length of horns, thick horn base close together. Scrotum visible.

Hunting Tip:

Study how distance and wind affect your bullet or arrow.



#16

**Billy or Nanny?
Would you take this shot?**



Answer #16

8-year old nanny, October

Clues:

Distance is too great to realistically identify the sex and there is possibility of severe avalanche danger.

Don't take this shot.

Hunting Tip:

Never put yourself or your hunting party in danger by trying to shoot and retrieve animals on steep cliffs or in avalanche zones. Using a good spotting scope would also allow you to see the GPS collar on this goat.



#17

Billies or Nannies?



Answer #17

Two billies, early summer

Clues:

Gradual curve throughout entire length.

Hunting Tip:

The short summer hair allows you to see the scrotum when the goat is positioned at certain angles.



#18

Billy or Nanny?



Answer #18

7-year old billy, March

Clues:

Stocky body, gradual curve to entire length of horns.

Hunting Tip:

Before taking a shot, take time to determine the sex of the animal, and consider whether you will be able to retrieve the animal in steep terrain.



#19

Billy or Nanny?



Answer #19

This distance is too far to identify the sex of the goat. Get CLOSE, be PATIENT and use quality optics.

Hunting Tip:

Wait until the animal stands or turns and exposes a clear heart/lung shot. Head and spine shots are not recommended because they often result in a wounded animal.

Want more?

Visit the online Mt. Goat Identification Quiz to view additional photos and hunting tips.

http://www.adfg.alaska.gov/index.cfm?adfg=quiz.overview&quiz_id=3

Special thanks to all of the photographers who contributed to this publication: Jamie Womble and ADF&G staff, Neil Barten, Dave Crowley, Jeff Jemison, Phil Mooney, Jeff Nichols, Boyd Porter & Kevin White.



ADF&G administers all programs and activities in compliance with state and federal civil rights and equal opportunity laws. Obtain the full ADF&G and Americans with Disabilities Act and Office of Equal Opportunity statement online at www.adfg.state.ak.us or from the Division of Wildlife Conservation at 907-465-4190.

To learn more about hunting and general mountain goat information, go to www.hunt.alaska.gov/. For information about this publication, please contact the Division of Wildlife Conservation Area Office at 907-465-4265.



2013