



Photo by Bob Kyrin – Little Horn Outfitters

**D**esert bighorn sheep are one of the most sought after trophies in the entire world. Some of the best desert bighorn sheep tags have cost upwards of several hundred thousand dollars. They're also some of the hardest tags to draw in the United States. Desert bighorn sheep can be found in the following states: Arizona, California, Utah, Colorado, Nevada, New Mexico, Texas, and the northern states of Mexico. The minimum score to make the Boone and Crockett record book is 168 inches. Mass on record book rams usually is responsible for over 50 percent of the overall score. I've been bitten by the "sheep bug" and really enjoy spending time looking at the rams here in my home state of Arizona. My goal for writing this article was to assemble a group of experts with a ton of experience and get their thoughts on how to field judge big desert rams.

The expert panel includes: Geof Moss of Arizona who is owner of Littlehorn Outfitters ([www.littlehornoutfitters.blogspot.com](http://www.littlehornoutfitters.blogspot.com)),

Victor Trujillo and Victor Clark of Nevada both of whom are sheep fanatics, and Travis Scott of Southwest Hunting Adventures ([www.southwesthuntingadventures.com](http://www.southwesthuntingadventures.com)). I hope some of these tips on field judging can help you when your name is finally pulled for one of the coveted tags.

### What is the first thing to determine when looking at a ram for the first time?

**GM:** The first impression or WOW factor! I am always looking for a ram that blows my mind... usually that comes from big mass. If a ram moves his head and you see very little daylight between the horns and head, you're looking at a very massive ram. Big rams look big. If you have to debate and convince yourself that a ram is big, it probably isn't. Extreme distance can complicate this as some of the biggest rams I've ever seen were first spotted from over a mile. At that distance all I could tell is they were bigger than the

# Field Judging Desert Bighorn Sheep

Tips and tricks  
for field judging  
big rams.

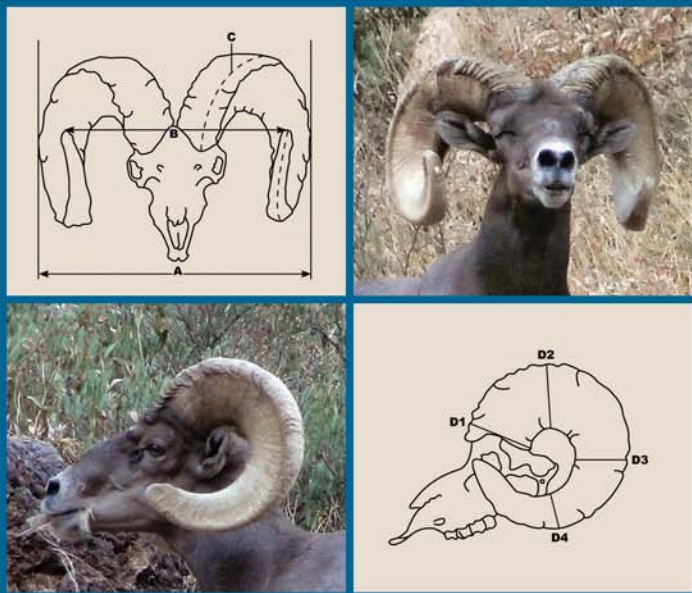
— By Jay Scott, Field Editor —

Scoring Estimates by Geof Moss

Editors Note: A number of photos used for this article have been taken from video captures or through spotting scopes.



Photo by Chris Denham



### BOONE AND CROCKETT CLUB SCORING SYSTEM

**A. Greatest Spread** – Not added into the final score.

**B. Tip to Tip Spread** – Not added into the final score.

**C. Length of Horn** – Measured from the lowest point in front on outer curve to a point in line with tip.

**D-1. Circumference of Base** – Measured at a right angle to axis of horn.

**D-2-3-4.** – Divide measurement C of longer horn by four. Starting at base, mark both horns at these quarters (even though the other horn is shorter) and measure circumferences at these marks, with measurements taken at right angles to horn axis.

rams they were with. If a ram stands out in a group at that distance, get closer! Of course, my answer assumes we're talking about finding BIG rams, which not all areas/units will produce. If you're not in a premium unit, I would recommend looking for mass carried throughout the length of the horn, and age, which is normally evident in brooming and damage to the horns.

**TS:** How does overall size look? How does his body compare to the other rams or ewes around him? Small sheep usually have small horns! Just because the horns look big doesn't really mean they will measure big. When they are alone, which many big rams are, it can be very tricky! Try to stay with a ram until he gives you a look with other sheep. Sometimes, though, there is the OMG ram; you may have to take that gamble!

**VT:** Does he have the blocky appearance of a mature ram?

**VC:** The look. That is the first thing for me. If the ram's appearance grabs you then it usually has what it takes. Look for the one that stands out in the ram group. For some, the look is worth more than the score.

### How do you determine the mass at the bases?

**GM:** You need to know the history of the particular unit that you're hunting and what it can produce. Know the top-end potential as well as what a typical mature ram will measure. Simply looking at the space between the bases can be misleading—I've seen harvest photos of extremely big based rams that had a lot of space between the horns, they just had unusually large heads. You also need to look

at the space between the bottom of the base and the eye. Really large rams will have bases that appear to go down to the eye. In simple terms, you need to start out with a frame of reference for the unit/area you're hunting and move up or down from that.

**TS:** The mass at the bases goes hand-in-hand with the overall size of the sheep. Most of the time, if you are looking at a mature ram a small sheep will have small bases and a large sheep will have big bases. I've heard time and time again, "Look at the space between the bases." This couldn't be further from the truth! Most mature rams will have about a 1/4" gap between their bases, whether they are 13" or 15". The size of the head determines the bases. Once this analysis is done I move to the 2nd quarter measurement. I still haven't figured a measurement for the base. I use the color transition between the white area on the nose and the darker area on the face; that "line" is typically between 11 1/2" and 12" on a ram. I then determine the 2nd quarter and move back to the 1st quarter. Normally a ram will be 1 1/2"-2" bigger on his 1st. The bases will be within a 1/4" of his first. (Example: 2nd quarter = 12 1/2", so 1st = 14" - 14 1/2" and base = 14 1/2" - 14 3/4")

**VT:** Get to know base sizes for the area you are hunting through harvest reports and data from Game & Fish. If average bases are 14" then I would never assume bases to be any bigger.

**VC:** A good place to get a starting point for bases is the Department of Wildlife. They keep records of the bases of the rams killed in the management unit that you will be hunting. Take several years and average the bases. When judging a ram you will have a number to add or subtract from. I look at as many rams as possible at sport shows, friend's trophies, anywhere I can, then after guessing the bases I find out what they are. This will give you a bit of baseline experience to draw from.



### EXAMPLE SCORING ESTIMATE

Base: 14-4/8" 1st Qtr: 14-0/8" 2nd Qtr: 12-6/8" 3rd Qtr: 8-4/8" = 49-6/8"

Mass: 49-6/8" x 2 = 99-4/8" Length: 37-0/8" x 2 = 74-0/8"

Total = 99-4/8" + 74-0/8" = 173-4/8"

### How do you determine the length of horn?

**GM:** Generally speaking a good solid ram will have 33 or 34 inch horns, a big ram will have 35 or 36 inch horns and really big rams will hit 37 or 38. Anything bigger and you won't be debating this question! A mature ram will rarely have horns under 30 inches unless he's broken or severely broomed. Again, know the history of the unit and look at the data provided by Game & Fish. For the past three years, the average horn length of all harvested rams in Arizona has consistently been 32 inches. Look at the horn drop, how far they come off the head (*side-to-side*), how far up and back they come out of the bases, whether the tips turn up, and the degree of brooming. All these things should be taken into consideration when determining whether a ram is longer or shorter than average. But truth be told, I don't spend a lot of time debating this. Gut feel relative to rams taken in the past and experience in the unit usually guide my estimate.

**TS:** The length of a big ram's face from the tip of the eye to the tip of the nose is roughly 8". I use this "ruler" to determine the broadside look. I want the back of the horn from the eye to be at least as long as the nose (8"). A ram's head-on view will give you his spread and drop. You must have the outside of the horn dropping below the jaw line! I also like to see the horns about as wide as the ears to get that extra long length. But be careful, look at the OUTSIDE of the "donut" not the inside.

**VT:** Do the horns come off the head high and make a circle? The larger the hole (*can you fit a baseball, softball, or soccer ball in the inner hole*), the longer the horn. If the horn is egg-shaped then the horn will be shorter. When viewed from the front, do the horns come in close to the head or are they out past the ears and do they tip out? From the side, if the lower edge of the horn comes down



#### EXAMPLE SCORING ESTIMATE

Base: 14-6/8" 1st Qtr: 13-4/8" 2nd Qtr: 12-4/8" 3rd Qtr: 8-0/8" = 48-6/8"  
 Mass: 48-6/8" x 2 = 97-4/8" Length: 35-0/8" x 2 = 70-0/8"  
 Total = 97-4/8" + 70-0/8" = 167-4/8"



#### EXAMPLE SCORING ESTIMATE

Base: 15-4/8" 1st Qtr: 14-4/8" 2nd Qtr: 13-0/8" 3rd Qtr: 8-0/8" = 51-0/8"  
 Mass: 51-0/8" x 2 = 102-0/8" Length: 36-0/8" x 2 = 72-0/8"  
 Total = 102-0/8" + 72-0/8" = 174-0/8"

to the bottom of the jaw and the horn tips come up even with the bridge of the nose, the horns are longer than normal.

**VC:** From the side, if the horn is circular, not egg-shaped, how close the horn comes to making a full circle will give you a basis to form a guess. On average, a full curl will be around 40 inches. The size of the inner circle will make a big difference in horn length i.e. if the inner circle is the size of a grapefruit as compared to a cantaloupe. Also, the mass of the circle will influence the horn length. The more mass a horn carries the longer the horn and it will decrease the size of the inner circle. Generally, the bottom of the drop (*drop referring to the lowest point the horn reaches in relation to the jaw line*) is between 31 and 33 inches.

### If you only had one look at a ram, which would you prefer?

**GM:** A good frontal view that is on the same level/plane as the ram. A severe downward angle would be my least preferred! The frontal view will show you most of the things I referred to in the previous questions: horn drop, spacing between the base and eye, if the horns tip up, how far the horns come off the head laterally, and how well the mass is carried through the quarter measurements.

**TS:** ALL or NONE. We will not take a ram without looking at every single aspect of him! This is the last time the hunter will have this tag in his pocket!

**VT:** Head on, looking for some of the same things discussed above.



#### EXAMPLE SCORING ESTIMATE

Base: 15-4/8" 1st Qtr: 14-4/8" 2nd Qtr: 13-4/8" 3rd Qtr: 9-2/8" = 52-6/8"  
 Mass: 52-6/8" x 2 = 105-4/8" Length: 32-4/8" x 2 = 65-0/8"  
 Total = 105-4/8" + 65-0/8" = 170-4/8"

**VC:** From the side/front. The one visual indicator that will identify an exceptional ram is HORN DROP. I have found if the whole horn drops below the jaw line you have an exceptional ram.



**EXAMPLE SCORING ESTIMATE**

Base: 16-0/8" 1st Qtr: 15-0/8" 2nd Qtr: 14-0/8" 3rd Qtr: 9-0/8" = 54-0/8"  
 Mass: 54-0/8" x 2 = 108-0/8" Length: 35-4/8" = 71-0/8"  
 Total = 108-0/8" + 71-0/8" = 179-0/8"

**Are there any "rule of thumb" field judging tricks that you use?**

**GM:** Mass will make up approximately 60% of the total score on a mature desert bighorn ram in Arizona. If you study the harvest data provided by the AZGFD, most of the rams that hit the high 160s will have approximately 100 inches of mass. In the units where I spend my time, that represents roughly a 15 inch base. When you get into the 15 1/2 to 16 inch bases, you can get up to 105 or 106 inches in mass depending on second and third quarter measurements. Mass beyond that is rare. Simply adding a rough mass estimate with the horn lengths will get you a representative score much simpler and faster than trying to guess every measurement. For example, a mature ram in southwest Arizona that has some age and good bases is going to have that 100 inches of mass; average horn lengths of 33 or 34 inches will put him in the 166 to 168 range. Come down from that if he has smallish bases or thin third quarters, up if he has extreme mass on the third quarter or extra long horns, etc.

**TS:** One rule of thumb I use is: look at as many rams as you can and kill the biggest one! It sounds simple, but it's very true. You can only kill what is in a unit! Big in one unit may not exist in another. You will know when you find the OMG rams as well. Plain and simple... if you don't know, let him go. Do not talk yourself into a ram!

**VT & VC:** Minus ONE, TWO, and FIVE. For example, if we determine the base is 15 inches, then the second quarter would be 15-1=14, the second quarter 15-2=13, and the third quarter 15-5=10. We then add up all the quarter measurements and double them.



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15+14+13+10=52, 52x2=104, so mass would be 104". If we guess the horn lengths at 33 inches each, giving us 66 for horn length, we add that to the mass: 104+66=170. You can make up a cheat card starting with a 13 inch base, increasing in 1/2" increments up to 16 inches for quick reference. If you want to get fancy, you can cross reference a column of base measurements with a column of length measurements that will give the score.

**What is your biggest fear when field judging a ram?**

**GM:** Over judging and inflating a score! I never want that reputation or to have a disappointed hunter that is deflated by the reality of the ram on the ground. One thing that could fool an experienced guide/hunter is the so-called "dwarf" sheep that has an unusually small body. If possible, it's always nice to have other rams to compare body size with. This can work both ways as some of Arizona's premium units produce larger bodied rams with larger bases on average, which makes it easy to under judge them. It is hard to overstate the value of experience in the unit you are hunting.

**TS:** Some unseen chunk missing. This can really drop the score. Don't shoot a ram because of what you think he scores; take him because he is the one you want to look at for the rest of your life!

**VT:** That you have guessed the bases right. If you are off by 1/2", that's a total of 4" off your mass measurements (1/2" x 4 quarter measurements x 2 horns = 4").

**VC:** Misjudging the bases.

**When trying to determine age and body size on a ram what do you look for?**

**GM:** As an indication of an older/mature ram, I look for weathering and brooming of the horns, mass near the tips, and depending on the distance, try to see age rings that are closely spaced near the bases. Old rams will sometimes develop what I jokingly call a "donkey nose" and will often have beat up, scarred noses and faces from fighting. Body size is relative, and unless there are other sheep and preferably rams in the same group, not necessarily that meaningful. Body size can also vary based on habitat conditions, time of year, and especially the management unit they live in. I have found that sheep in Arizona's Units 22 and 24B tend to be larger bodied than sheep living in drier habitat in southwest Arizona. I have seen life-size mounts of sheep from old Mexico that are even smaller yet.

**TS:** Age is easy! Look at the growth rings; the position of the 4-year mark should be parallel with the ear. An old ram will have a "hippy" look. Not the tie-died clothes, but his hips will be very prominent. Also, look at the way he moves. Does he look like an old warrior? Size is different! As stated earlier, you have to look at sheep with other sheep. In body size most animals will have a constant, a bull elk is a bull elk, a mule deer buck is a mule deer buck, but sheep are not this way. Judge them to their surroundings. Barrel cactus are great for this; most barrels are about 32" high. The ram's belly better be higher and bigger than the average barrel cactus, otherwise he will surprise you!

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**EXAMPLE SCORING ESTIMATE**

Base: 15-2/8" 1st Qtr: 14-4/8" 2nd Qtr: 13-2/8" 3rd Qtr: 9-2/8" = 52-2/8"  
 Mass: 52-2/8" x 2 = 104-4/8 Length: 35-4/8" x 2 = 71-0/8"  
 Total = 104-4/8 + 71-0/8" = 175-4/8"

**VT:** You can't always go by age. I have seen five-year-old rams that score big. Some rams may display all of the good qualities in horn conformation except for overall size. These small-horned rams are often referred to as "mini heads." Mini heads are often very difficult to score without making some comparison with other sheep.

Don't get all caught up in the score of a ram. Bottom line: are you going to be happy with the looks of the ram regardless of what it scores? I've seen high scoring rams that don't have the look I like, and lower scoring rams that have the look I like.

**VC:** If possible, counting the rings on the horn will give you the age. I need several rams together to get a good perspective of body size. I find the most helpful component for judging a ram is having several rams together, which provides something to compare body size, horn size, etc. There are several different types of horn configuration, i.e. tight circles versus large circles or long horns with average bases versus short horns with very large bases. My point is each ram will present its own unique set of scoring elements and you must identify and account for these individual characteristics.

**Anatomical Measurements**

*(Courtesy of Clay Goldman, Mogollon Taxidermy)*

- Ear to ear average length: 13"
- Front of eye to front of eye: 5 1/2-5 3/4"
- Base of horn to nose: 8-8 1/2"
- Shoulder to shoulder: 11-12" *(Can vary quite a bit.)*
- Top of shoulder to hoof: 35-36"
- Front of eye to tip of nose: 7 1/2-7 3/4"

**Editor's Note:**

For more on Jay's outdoor adventures, log on to his website at [www.jayscottoutdoors.com](http://www.jayscottoutdoors.com).



**OFFICIAL BOONE AND CROCKETT GROSS SCORE**

Right Horn Mass: 15-0/8" + 14-5/8" + 13-3/8" + 10-4/8" = 53-4/8"  
 Left Horn Mass: 15-1/8" + 14-5/8" + 13-1/8" + 10-5/8" = 53-4/8"  
 Total Mass: 53-4/8" + 53-4/8" = 107-0/8"  
 Total Mass: 107-0/8" + Right Length: 34-7/8" + Left Length: 35-1/8" = 177-0/8"



Glenn Hall (left) took this massive ram with guide and author Jay Scott.



**OFFICIAL BOONE AND CROCKETT GROSS SCORE**

Right Horn Mass: 15-1/8" + 14-5/8" + 12-0/8" + 7-7/8" = 49-5/8"  
 Left Horn Mass: 15-3/8" + 14-7/8" + 12-6/8" + 8-4/8" = 51-4/8"  
 Total Mass: 49-5/8" + 51-4/8" = 101-1/8"  
 Total Mass: 101-1/8" + Right Length: 34-3/8" + Left Length: 34-4/8" = 170-0/8"



Geoff Moss (left) guided Jim Hamberlin Jr. to this ram in 2009.