

SPORT HUNTING

A Model of Bighorn Success

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The popular press is filled with bad news lately. Bighorn hunters, it is stated, are destroying the very rams they covet. By killing large, older males, we are selecting for survival of small-horned bighorns, it is said. Someone, however, has failed to inform North America's bighorns – they just seem to be getting bigger and bigger instead of going the way of 'tuskless' elephants. So before you hang your head in shame, and your favorite sheep rifle over the mantle for good, consider some observable, irrefutable facts.

Hit the Books

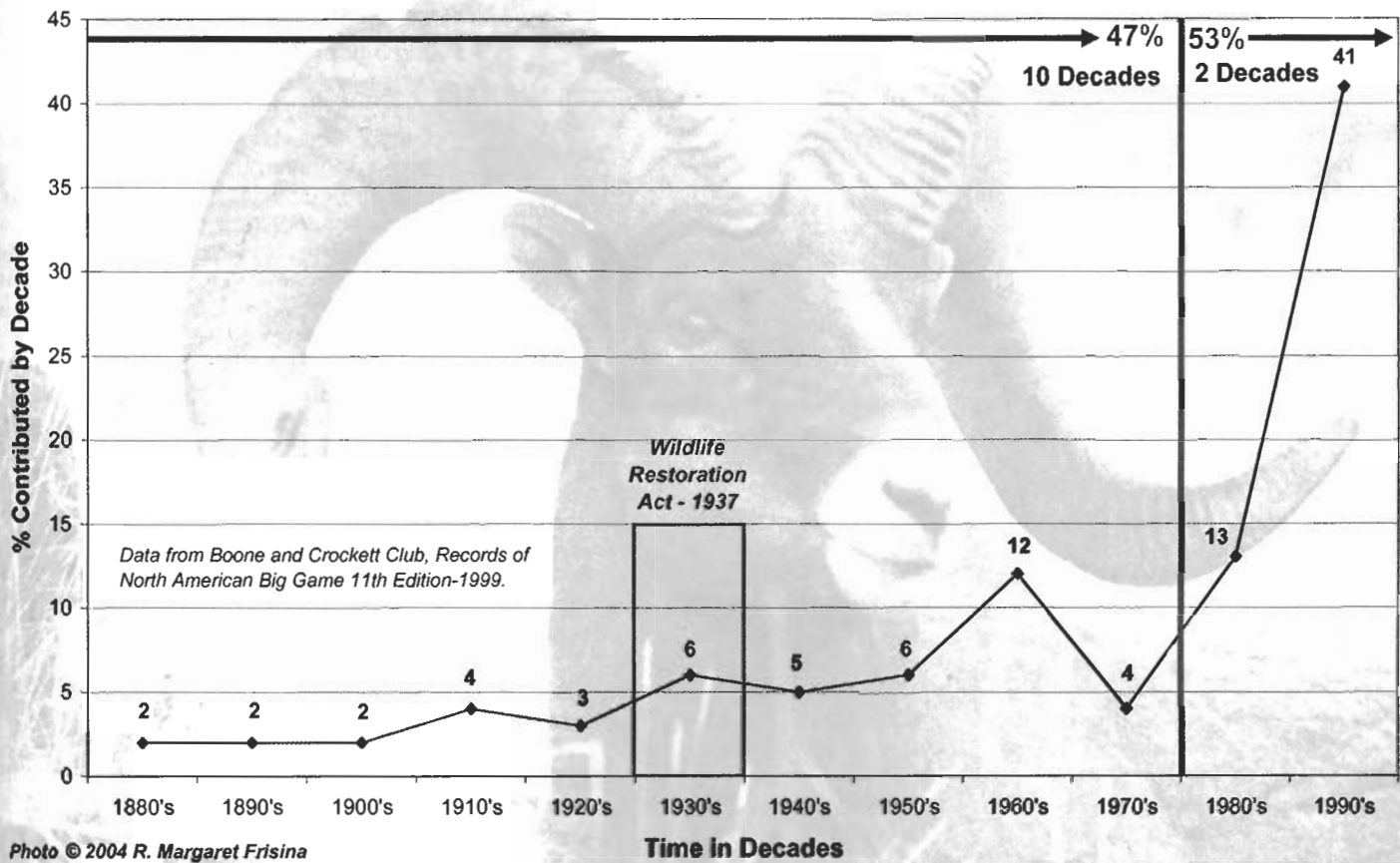
To get to the truth, take a look at bighorn trophies – the biggest of the big.

While any legally taken, free-ranging bighorn is a trophy to be proud of, we chose the top 100, as it address the criticisms leveled against hunters by some scientists. If hunters are selecting for small-horned sheep genes, one would expect trophies to be getting progressively smaller over time. The obvious place to start is the Boone and Crockett Club record book. We chose the 11th Edition, the latest, as a reference to compare the top 100 Rocky Mountain bighorn trophies over a timeline. B&C is a good source, because the trophy scores take into account horn length and mass; thus, the higher the score, the bigger and weightier the horns. The number of rams with

Photo by Brian martin. This photo took 3rd place in the Live Sheep category as well as the Peoples Choice Award during the 2004 Annual Convention.



TOP 100 B&C ROCKY MOUNTAIN BIGHORN TROPHIES BY DECADE
(Entries through 1997)



really big horns has dramatically increased over the past two decades. For example, there are only 19 rams reported in the B&C records that have scored 200 points or more; 9 rams (47%) were taken between 1883 and 1955 (72 years); 0 were reported from 1956 to 1986, and 10 (53%) were taken between 1987 and 1997 (10 years). So 53% of the very biggest bighorn rams ever reported were taken over a 20-year period. So much for selecting for small horns in bighorns!

Keep in mind as we go along, that the 11th Edition only covers trophies recorded through 1997 – there are other big boys not accounted for yet, not to mention that the world's record bighorn, which stood since 1911, has been broken since the latest edition of the B&C record book, published in 1999. Avid hunter, Guinn Crousen, took an Alberta bighorn scoring 208 3/8 in 2000, a new world's record. It is interesting that Alberta is the place where studies of a very small population of sheep were conducted, leading to the small horn gene selection farce.

Now compare the top 100 trophy

rams of all time reported in the same B&C record book, and the story gets even more interesting. It took 10 decades (1880s-1970s) to achieve 47% of the top 100 trophies; it only took 2 decades (1980s-1990s) to achieve 53% of the top 100 trophies! Keep in mind that, due to the timing of the 11th Edition, the final 3 years of the 1990s are not included. Again, big-horned bighorn rams are becoming more numerous, not less so, and they are definitely not going bald!

These are real data; no computer modeling, no assumed factors and complicated statistical analyses; just the facts and nothing but the facts. Good data stands alone without excessive massaging. That belongs to the realm of marginal data. The information we present here represents hunters pursuing Rocky Mountain bighorns across their entire range, not one small area.

What Makes for Big Horns in Bighorns?

It is obvious that genetics plays a role; if male, you will end up with the hair-

line of your mother's father. It is often forgotten how much genetic diversity there is within a specific animal population. Remember the forgotten 50%! Ewes contribute half of the genes determining male characteristics. It is also true that it isn't only the biggest rams that do the breeding. A recent study of Rocky Mountain bighorn sheep found that although a few large-horned rams (age 8+ years) had very high reproductive success, younger rams sired about 50% of the lambs! Mating success was not restricted to a few top ranking rams each year. When it is all said and done, the ultimate potential for horn size may be set by genes, as are other horn characters such as curl tightness and overall shape, again from two parents, but achieving that potential is overridden in wild animal populations by the environment they inhabit.

A good way to understand it is by analogy to a truck engine. You might have a dandy, beefy Dodge Hemi, but if there is a governor on that engine to keep it from

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achieving more than 50 miles an hour, you're not going to achieve that Hemi's power potential. In the real world of wild sheep, habitat is the governor on horn size; it overrides genetic potential. Many years of research on North American deer say this is so in antlered game. In a nutshell, one can make a yearling buck (18 months) anything from a spike to a 4-point, depending upon the quality of nutrition available. It works exactly the same for bighorn sheep.

The Montana Case

Montana is a good case for graphically demonstrating how habitat quality determines horn size in bighorn sheep. As we all know, Montana is known as the "Land of Giant Rams"; the Big Sky has produced 42 of the top 100 rams listed in B&C's 11th Edition record book. As mentioned earlier, many of these rams were taken by hunters during the 1980s and 1990s from herds created through a series of transplants over the past 30+ years. Many of the top 100 rams reported from Montana were taken from those transplanted herds. Many bighorns were transplanted from the Sun River population, which hasn't produced much in the way of B&C-qualifying trophies for many years. Yet these same bighorns, when introduced to a new area where population density is low and thus competition for forage is low, produce the biggest of

bighorn rams in North America. Obviously, there is a lot more going on here than genetics.

Sport Hunting: Sin or Savior?

To the sport hunter, or general bighorn enthusiast, the good old days are now! Why? Because the alliance between sportsmen and women, wildlife managers, and conservation organizations such as FNAWS are realizing the results of their investment and efforts on behalf of bighorns.

A key time in the history of North American wildlife conservation is noted on the graph – 1937 – the year the Federal Wildlife Restoration Act or Pittman-Robertson Act was passed by Congress. The PR Act set the foundation upon which hunters are able to target tax dollars from sales of ammo and firearms toward management of wildlife and their habitats. The law is very specific; the money must be used for meaningful wildlife conservation. Federal tax dollars are matched with state hunting license dollars to fund most of the meaningful wildlife conservation in the U.S.

An important use of PR funds, along with other hunter dollars generated by organizations such as FNAWS, is the creation of new herds of bighorns through transplanting and habitat conservation through land acquisition, easements, and other creative strategies. As a result,

many herds have been established within historic sheep range. **Thus, it is sport hunting that has provided the means for the return of the bighorn and a steadily increasing number of really big bighorn rams.** These are observable facts – just the opposite of the voodoo science you may recently have read in newspapers from London to New York and across the Internet.

The moral of the story? Don't hang your head; don't be swayed by assumptions and theoretical conjecture disguised as truth under the smoke screen of complex statistical analyses and computer models. Reality is we need more sport hunting of bighorn sheep if we want to keep producing the biggest of the big. And there is no need to apologize for that, despite the assumed moral superiority by some who find it personally objectionable.

As so often happens, subjecting a small amount of data to assumptions and complex mathematical analyses has accomplished little on behalf of North America's wild sheep. Hunting, however, has enabled the comeback of our beloved bighorns and continues to guarantee a future for the biggest of the big and the average, too.

Suggested Reading:

Voodoo Science: The Road from Foolishness to Fraud by Robert Park. A clear explanation of this insidious phenomenon and its variants. Available online from Amazon.com.

Records of North American Big Game, 11th Edition by Boone and Crockett Club, 1999. Available from Boone and Crockett Club, Missoula, Montana.

Restoring America's Wildlife by United States Fish and Wildlife Service, 1987. Out of print. Available through libraries.

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