

MIXED BAG

Ages of Pronghorn Trophies



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IN THE SUMMER 1994 ISSUE OF THIS MAGAZINE, WE DISCUSSED THE AGING OF BEARS FROM TOOTH SECTIONS AND CONCLUDED THAT TROPHY GRIZZLY AND ALASKAN BROWN BEARS WERE THE OLDEST BIG GAME ANIMALS WE HUNT. AT THE OPPOSITE END OF THE SPECTRUM THE YOUNGEST TROPHY ANIMALS ARE THE PRONGHORNS. IT WAS IN 1951 AT THE UNIVERSITY OF MONTANA THAT WE EMBARKED ON INITIAL STUDIES OF AGE DETERMINATION IN PRONGHORNS BY ARRANGING TO TRANSPLANT ANIMALS TO THE NATIONAL BISON RANGE AT MOIESE, MONTANA.

There, my now deceased graduate student, Sumner Dow, marked new-born fawns for later sacrifice and we had a nucleus of animals brought from the wild which eventually provided us with a series of known-age animals. These animals were sacrificed at appropriate intervals until the oldest was 6 years old. In 1962, Dow and I published the first paper on aging this species based upon these animals and a series of over 1,200 jaws obtained from Montana hunters. At that time, aging by sectioning teeth had not been fully explored, but later another graduate student, Henry McCutcheon, sectioned incisor teeth and further refined the accuracy of aging. Parenthetically, many later studies on the Bison Range by a succession of students of behavior have been conducted. Much of the current information

on the social and rutting behavior of pronghorns has resulted from studies conducted there.

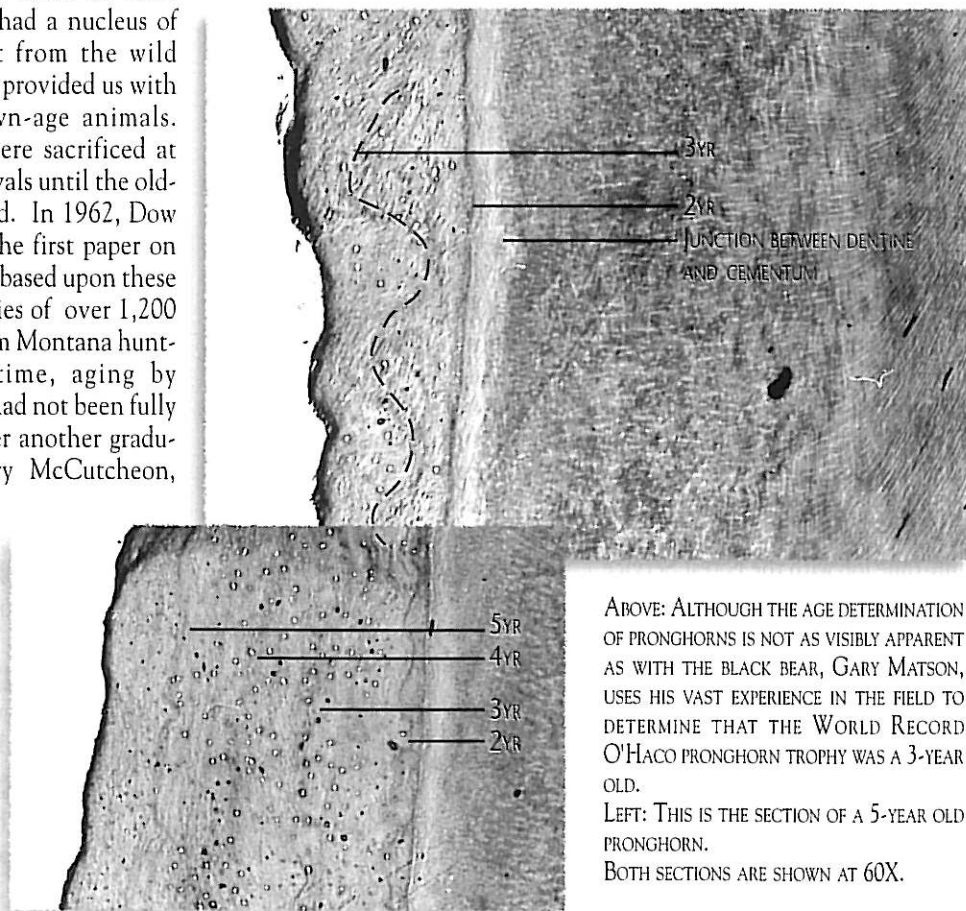
Although we ask for a tooth from each trophy animal entered in our records program, we have

had only 6 pronghorn teeth to submit to Gary Matson for sectioning and study by the most refined techniques. Three of these were determined to be 3 years old, one 4, one 5 and one 7. One of the 3-year olds turns out to be the current world's record taken by Mike O'Haco in Arizona in 1985. Matson is quite certain of his age determination in the 3-year old animals. We urgently need more teeth from entered pronghorn trophies at above the 82 score to get a clearer picture of the ages of trophy animals.

It may seem incredible that the O'Haco trophy could be that

4,5 or 6 year olds. We also have known for many years that pronghorns grow rapidly and that yearling bucks may weigh over 100 lbs. and fully mature adults at the same time after the rut about 120 lbs. Thus the 16 month old male may have reached over 80% of its adult weight. By comparison a yearling bull elk, for which we have a number of weights also from animals taken on the Bison Range, weighs only about 50% of its potential adult weight.

Apparently none of the states with large pronghorn populations have done very complete or thorough sampling of the ages of their



ABOVE: ALTHOUGH THE AGE DETERMINATION OF PRONGHORNS IS NOT AS VISIBLY APPARENT AS WITH THE BLACK BEAR, GARY MATSON, USES HIS VAST EXPERIENCE IN THE FIELD TO DETERMINE THAT THE WORLD RECORD O'HACO PRONGHORN TROPHY WAS A 3-YEAR OLD.

LEFT: THIS IS THE SECTION OF A 5-YEAR OLD PRONGHORN.

BOTH SECTIONS ARE SHOWN AT 60X.

young, but these results do not surprise me because when we were sacrificing the bucks on the Bison Range in the mid-50's, the largest horns, although not of record size, were on the 3 year olds, not the

animals. Keith Sexson of the Kansas Game Department which state has only relatively few pronghorns, has sent incisor teeth of over 50 bucks taken during the 1992 and 1993 seasons to the Matson Lab for

RIGHT: THESE SPECIMENS WERE TAKEN IN POWDER RIVER COUNTY, MONTANA, JUST THIS FALL. BOTH HEADS ARE KNOWN TO BE 2-YEAR OLDS, YET THEY BOTH WERE GREEN SCORED AT OVER 75 POINTS.



sectioning. Three year old bucks there have grown horns that are 14 or 15 inches long and the number of horns of that size don't appear to be better represented in 4-year olds or older bucks.

In our search for appropriate material for this column, we located at Dale Manning's local taxidermy shop, the illustrated heads. Both are only two years old, shot in Powder River County, Montana in October 1994. These bucks are known to be two year olds since they have several baby or deciduous teeth and all other dental characteristics of that age class, have 14 inch horns with 5 inch prongs and green scores of 75+ points. Although the usual two year old buck has horns that are not fully developed, this kind of horn growth is not unusual. Matson also sectioned teeth of a series of

6 bucks, all with horns over 14 inches in length that were taken during the hunting season in Montana in October 1994. Four of these were 4 year olds and 2 were 3 year olds.

Another aspect of horn growth in pronghorns is that the outer horn sheaths are shed after the rut each year in late October or November and the new soft sheaths underlying them are ready to start growing at once. The horns, then, are growing all winter and spring. We be-

lieve, although we don't have the matter fully documented, that horns developing after a mild winter will be larger than after a

severe one.

Remember that the horns of a bighorn or other bovids are retained throughout the animal's life and thus the horns, except for the broomed tips of older animals, represents the entire growth history of the individual. In the antlered deer, elk, moose or caribou, on the other hand, the entire antler is grown from scratch each year. We urgently need sample teeth of all trophy animals submitted for entry. For the hooved animals one of the middle lower incisors is required. For bears and cougars we need one of the small premolar teeth.

BELOW: THE WORLD RECORD PRONGHORN WAS TAKEN BY MICHAEL J. O'HACO, JR. IN 1985, IN COCONINO CO., ARIZONA. IT SCORES 93-4/8 POINTS.

