

TROPHY CARE

Avoiding Shrinkage in Trophy Horns



John O. Cook III

MEMBER

*Records of North American
Big Game Committee*

MANY TROPHY OWNERS ARE CONCERNED ABOUT THE SHRINKAGE OF HORNED TROPHIES, PARTICULARLY PRONGHORNS AND MOUNTAIN GOATS DURING THE REQUIRED 60-DAY DRYING PERIOD FOR BOOK ENTRIES. IN FACT, THIS SUBJECT HAS BEEN THE TARGET OF MANY TELEPHONE CALLS SINCE WRITING THE "HOW TO" TYPE ARTICLES FOR *FAIR CHASE*.

Both species maintain horn growth from inside the horn sheath due to a membrane that continually grows. One major difference between the two is that the pronghorn sheds its horns yearly, around the end of October, and immediately begins new growth from this membrane, while the mountain goat's horns are permanent and continually grow from the base. If you have the chance to examine a set of mountain goat horns, you can determine age by counting the annual growth rings, these growth rings are also found on sheep species.

Pronghorns present the biggest shrinkage problem due to the large mass of membrane between the horn sheath and the horn core. If left to dry naturally, you will see shrinkage to the basal circumference, as well as the horn lengths. The lengths are particularly affected as the front and back edges tend to curl inward when drying. Over the years, I've developed a cleaning process for the skull and the horns that tends to hold shrinkage to a minimum. Take the prong to prong measurement (A) and also the tip to tip measurement (B) for reference at a later date. After skinning the cape off of the antelope skull, I cut the skull cap down through the middle of the eye sockets, then cut forward on a level plane from the rear of the cranium to meet this first cut. Clean as much of the muscle tissue and membrane from the skull as possible. After soaking the entire set of horns and skull cap overnight in a bucket of water (approximately twelve hours), drain and place in a plastic bag and seal tightly. It is important that the bag have no holes, and contain as little air as pos-

sible. I usually seal the horns with two to three individual bags to insure no exposure to the outside air. What you will accomplish with this contained and controlled rotting process is removal of the horns from the cores and membrane without boiling and shrinking the horn mass, thus alleviating shrinkage. After three or four days in the plastic bags a rotting process will occur and the horns will twist off the skull cores easily. Using a small scrub brush clean the horn sheaths, inside and out, with soap and water. Place the horn sheaths in a plastic bag and freeze the horns.

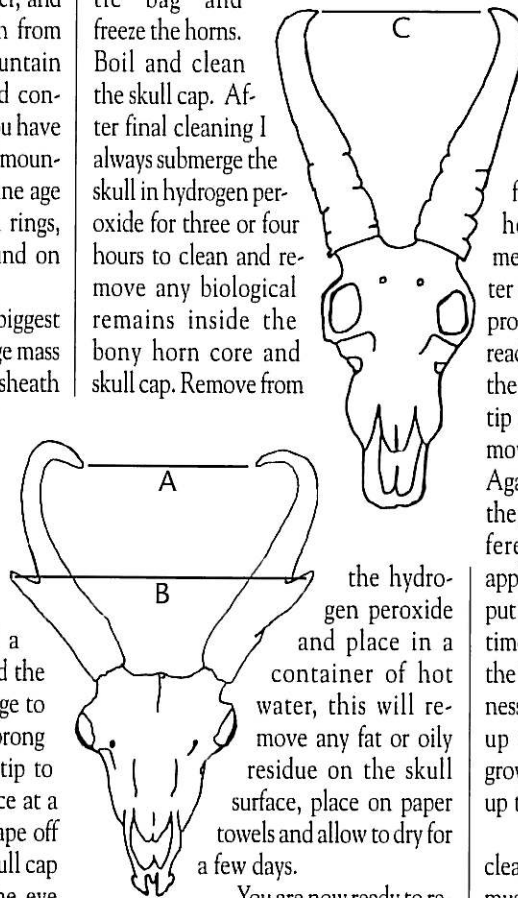
Boil and clean the skull cap. After final cleaning I always submerge the skull in hydrogen peroxide for three or four hours to clean and remove any biological remains inside the bony horn core and skull cap. Remove from

ence make sure the prong to prong and tip to tip measurements match the original taken. When placing the horns back on the cores the excess plaster will be forced out the bottom and protrude down from the base of the horns. Do not remove this excess plaster until it has hardened. By using the plaster of Paris you will be able to adjust the tip to tip measurements, and also maintain the basal circumferences without too much shrinkage. Some people use a bondo mixture, but we have found that plaster is the ideal compound, it cleans

up easily and can be removed in cases of mistakes, as in the case of bondo you only get one chance at completing this process correctly.

Mountain goats present a different problem, in that the inside horn core doesn't have the thick membrane that a pronghorn has. After using the same cleaning and drying process as discussed above, you are now ready to reattach the horn sheaths to the skull cores. Remember to take the tip to tip measurements (C) before removing the horns from the skull cores. Again coat the inside of the horns with the plaster of Paris mixture, the only difference being the thickness of the application layer. You might have to put the horn sheaths on one or more times to get the right thickness between the horn and the core, the right thickness will be correct when the horn lines up with the basal edge of the core growth. Let the mixture dry and clean up the horns and skull with water.

When using the above process for cleaning and re-attaching the horns you must also remember to wait for the required 60-day drying period before official measuring. The 60-day drying period countdown will begin the day the horns have been re-attached to the skull and horn cores. NOTE: when using hydrogen peroxide for cleaning and bleaching of the skull, wear protective eye wear and gloves. If skin or eye contact does occur flush the contaminated area with clean water for several minutes and consult with a physician.



the hydrogen peroxide and place in a container of hot water, this will remove any fat or oily residue on the skull surface, place on paper towels and allow to dry for a few days.

You are now ready to reattach the horns to the skull and will need about one-and-a-half cups of plaster of Paris, a mixing cup and butter knife or spatula. Mix the plaster to a thick muffin type consistency. Using the spatula coat the inside of each horn sheath with a layer of this mixture, more than the actual thickness of the membrane you removed from the cores after boiling. Push the horns on the cores, one at a time, and by using your refer-