



# PRONGHORN

*1<sup>st</sup> Quarter 2013*  
*Volume 19 Number 1*



# ARIZONA ANTELOPE FOUNDATION, INC.

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INFO@AZANTELOPE.ORG  
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## IN THIS ISSUE

Page 3	President's Message
Page 3	A Matter of Necessity
Page 4	Southeastern Arizona Grasslands Workgroup Meeting
Page 6	Annual Hunter Clinic
Page 6	Pronghorn Evolution and Management
Page 8	Social Behavior and the Pronghorn Year
Page 10	25th Biennial Pronghorn Workshop
Page 11	Sonoran Pronghorn Update
Page 15	Bringing Back the Game
Page 16	Harry Hussey Memorial Fund
Page 16	AAF at the Diamondbacks
Page 16	2013 Work Project Schedule
Page 16	SB1223 License Simplification Bill
Page 17	Membership
Page 18	Arizona Big Game Super Raffle

### AAF Mission Statement:

The Arizona Antelope Foundation is an organization dedicated to the welfare of pronghorn antelope. The Foundation's Mission is to actively seek to increase pronghorn populations in Arizona through habitat improvements, habitat acquisition, the translocation of animals to historic range, and public comment on activities affecting pronghorn and their habitat.



### ON OUR COVER

Richard Ockenfels was fortunate to capture this photo of a doe and her fawn while working on a habitat project in 2007 on the Yavapai Ranch.

*Pronghorn is a quarterly newsletter for the members of AAF. Letters, comments, news items, articles, pictures and stories are all welcome and will be considered for publication. Address all such items to:*

Tracy Unmacht, Pronghorn Editor, PO Box 12590, Glendale, AZ 85318, or by email at [info@azantelope.org](mailto:info@azantelope.org).

## PRESIDENT'S MESSAGE

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**Sometimes** in order to move forward we must look back to what our predecessors have laid out before us, or examine the hurdles they faced. For this Presidents message, I would like to share a letter that Past President (1996) & Life Member Nancy Lewis wrote. I believe its contents are as relevant now as they were back when it was originally drafted. I wanted to share this article to emphasize that the issues faced back then are still prevalent today, and this is why we are still here day after day as the united voice for a species that needs us as much today as they ever have.

Shane Stewart  
President & Proud Life member

### **A MATTER OF NECESSITY, THE FORMATION OF THE ARIZONA ANTELOPE FOUNDATION** by Nancy L. Lewis

It has been estimated that when Europeans first arrived in the New World in excess of thirty million pronghorns roamed the vast grasslands that extended from Canada to central Mexico. Arizona's share in this wealth of wildlife has been attested to in numerous diary accounts and reports of early settlers, trappers, and military personnel, as well as in newspaper articles published in the second half of the 19th century.

Before 1890, the pronghorn, *Antilocapra Americana*, was probably Arizona's most common game animal, but settlement took a tremendous toll on that extensive population. Pronghorn numbers began to decline noticeably and in direct proportion to the increase in human habitation with its associated developments and livestock, particularly the large herds of cattle and flocks of sheep introduced in the 1880s and 1890s. Arizona's rapidly growing population, a result of the building of railroads, the staking of mining claims, and the settlement of towns created a burgeoning market-hunting industry to supply the demand for fresh meat. Being plentiful, conspicuous, and more available than other wild game, pronghorns became a principal meat source.

The damage to the pronghorn population would not have been so extreme if hunters had killed them merely to supply the market demand. But it didn't stop there. Not only were they shot for food, but also, because they were so numerous, they were used for target practice. Pronghorns were shot at every opportunity, with no restrictions as to bag limit, season, or sex. Moreover, their movements were drastically curtailed by cattle and sheep fences, which crisscrossed their



range and created traps that hampered their escape from danger. They were living under siege and carried a price on their heads. Even when the animals were not being pursued, the fences made impassable barriers, which spelled the end of the open range. Many pronghorns succumbed to lack of forage, deep snow, and drought, caught in a maze of barbed wire as they followed fence lines for untold miles to oblivion and probably death.

The late 1800s saw various attempts to change the Territorial Game Code in order to rescue what remained of the pronghorn herds. Although the pronghorn received legal protection in the early 1900s, the law was rarely enforced and largely ignored. Hunting pronghorns for fun and profit remained a major pastime. With statehood in 1912 came the new Arizona Game Code, which continued the moratorium on pronghorn hunting, but this law, too, was rarely enforced. To add to the plight of the pronghorn, people were now using new-fangled machines (motorcycles and automobiles) to harass and hunt them.

During this period, another critical factor influenced the decline of Arizona's pronghorn herds. The Great War in Europe provided a ready market for as much beef, sheep, and goat meat as producers could

*(Continued on page 14)*

# SEAGRASS WORKGROUP MEETING

FEBRUARY 26-27, 2013

BY GLEN DICKENS & TICE SUPPLEE

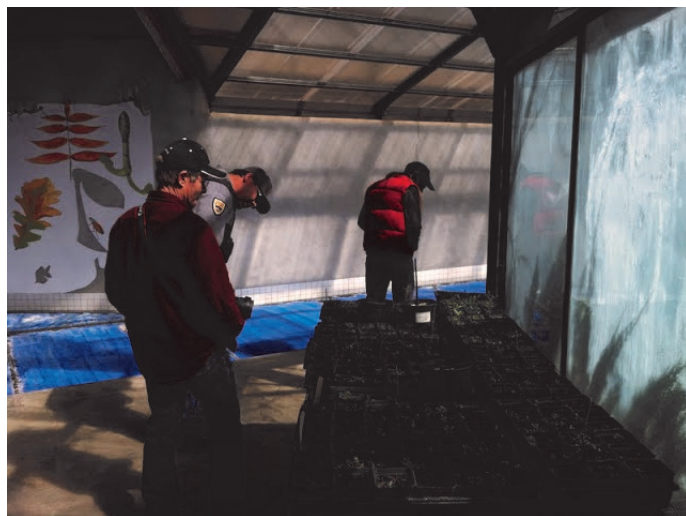
On February 26 and 27 four board members and staff of the Arizona Antelope Foundation attended along with 35 other participants the most recent Southeast Arizona Grasslands Collaborative Workgroup (SEAGrass) meeting held at the El Coronado Ranch near Pearce owned by Valer and AAF Life Member Josiah Austin, local conservationists.

SEAGrass formed in 2010 by the Tucson Regional Office of the Arizona Game and Fish Department has as its overall goal to bring together all the government agencies and non-government organizations for structured approaches to grassland conservation and management of the Sky Island Grasslands zone of southeastern Arizona. A principle focus has been to pursue all available sources of project funding with an emphasis on multifunded/leveraged on-the-ground project proposals. SEAGrass played a major role in assisting in the preparation of the AAF's successful National Fish and Wildlife Foundation's \$230K 3-year grant award for work on Pronghorn in Southeastern Arizona.

Tuesday was spent conducting introductions and various partner updates as well as formal presentations on Restoration and Wildlife Projects on the Austin Ranches in Southeastern Arizona and northern Mexico by our hosts Valer and Josiah Austin and an overview by Mike Patrick of The Trust for Public Land on an Initiative to protect the Austin Ranches and an overview by Ron Pulliam of the Borderland Restoration L3C initiative to reconnect wildlife, land and people in the borderland region.

Both Tuesday and Wednesday included field trips on the El Coronado Ranch near the headwaters of Turkey Creek on the northwest part of the Chirichuas and the Bar Boot Ranch at the mouth of Rucker Canyon.

*(Continued on page 5)*





*(SEAGrass Workgroup Meeting continued from page 4)*

The El Coronado, acquired in 1981 has been the focus of a complete watershed restoration by the Austin's. This effort was begun when Josiah was looking for a way to keep the water from pouring across a section of the road at El Coronado, so he decided to build a couple of small rock dams, called trincheras. It didn't take long before he noticed that silt was building up at the backside of each trincherera. A while later, grasses were growing there. And then there were puddles that stayed.

So the Austin's began their watershed experiment in earnest. They found a group of men from a village in Central Mexico whose forefathers had been building rock dams for hundreds of years. This crew taught the Austin's how it was done. Then they began way up in the Chiricahua Mountains in their drainage, working their way down. They also built bigger dams called gabions, which involved putting the rocks in wire cages first and then attaching the cages to each other. They did thousands of these dams and stopped counting at 20,000 Valer said on our walk around field trip and the real number is likely around 30,000.

Today, in spite of the ongoing drought across the Southwest, West Turkey Creek is flowing and scientists come from all over to study the flora and fauna on El Coronado.

On Wednesday the Bar Boot ranch was reviewed and in addition to watershed stabilization the conservation focus is on Grassland Restoration and Maintenance using a variety of techniques, the most recent being use of a hand sprayed herbicide to remove small mesquites and junipers in the existing grasslands.

We would like to thank the Austin's for their very gracious hospitality both providing rooms for all the attendees and a wonderful dinner and breakfast. We'd also like to thank John Windes, Tucson AGFD Habitat Specialist for setting up the learning opportunity. We also acknowledge the attendance of AAF Board members Tice Supplee and Glen Dickens and our NFWF grant employees John Millican SE AZ Field Manager and Caroline Patrick our SE AZ GIS Specialist.

*Photos courtesy of John Millican and Tice Supplee*



# 21ST ANNUAL AAF HUNTER CLINIC

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Draw results are out, and hopefully you are one of the lucky antelope tag holders, but whether you have a tag or not, you are welcome to join us at our annual clinic to increase your knowledge of pronghorn and pronghorn hunting!

**JUNE 8<sup>TH</sup>**  
**ARIZONA GAME & FISH**  
**5000 W. CAREFREE HIGHWAY PHOENIX**

We plan on having another great slate of speakers to give you pointers on what to do, and why! And Game & Fish Wildlife Managers from various units will be on hand to share information on your particular game unit.

If you're an AAF member, come out and visit your fellow AAF members, it won't cost you anything. Non-members will be asked to contribute a nominal donation which can be applied toward AAF membership through 2013.

Antelope hunting can be immensely enjoyable if you know what you're doing, otherwise it can be immensely frustrating! This clinic will provide excellent up-to-date information about everything you need to know for a successful hunt. We'll cover the following subjects:

- Arizona Pronghorn History
- State of Arizona's Pronghorn
- Optics & Photography
- Taxidermy
- Practical Field Care
- Hunting Tactics for Firearms and Archery
- Question and Answer Session
- Discussions with Game & Fish Wildlife Managers for your Unit

Watch your mail and our website for more details.

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## **PRONGHORN EVOLUTION AND MANAGEMENT**

**BY DAVID HEWITT - BOONE AND CROCKETT CLUB PROFESSIONAL MEMBER**

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Reprinted with permission from Boone & Crockett  
TROPHY POINTS: Big Game Research Online -- Part  
7 Monday January 24, 2011



It is an axiom that management for trophy deer, sheep, and goats requires management for older males because antler and horn size increase with age. For example, antlers continue to increase in size each year until white-tailed deer bucks reach at least 5 years of age, bull elk 7 years of age, and bull moose 10 years of age. For this reason, wildlife management programs that seek to produce trophy animals emphasize a low harvest rate of males, or a selective harvest that enables males with the most potential for large horns/antlers to mature.

Pronghorn are an exception to this pattern. In fact, pronghorn are exceptional in many ways. Pronghorn are the only species with a horn (keratinous head ornamentation) that has a prong and is shed annually. Pronghorn are found only in North America,

*(Continued on page 7)*

*(Pronghorn Evolution and Management continued from page 6)*

whereas deer, sheep, and goat species are found throughout much of the world. Pronghorn are the only member of their family (*Antilocapridae*); compared to the 50 species of deer and 35 species of sheep and goats, pronghorn are indeed a North American original.

Another unique aspect of pronghorns compared to other game animals is that their horns reach a maximum size at a relatively early age. Studies of pronghorn from Colorado north to Montana and Alberta consistently show pronghorn achieving a plateau in horn size by 2 – 3 years of age. Pronghorn in New Mexico and Arizona may have peak horn size later, perhaps 4-5 years of age. Furthermore, young bucks (less than four years of age) are often half of the top 10 largest pronghorn harvested in a region. The highest scoring Boone and Crockett pronghorn trophies, in which the animals' ages are known, are three years old or younger!

Why do pronghorn have this unique pattern in horn growth? One explanation suggests the horn growth pattern is part of a suite of traits that have enabled pronghorn to thrive in variable environments. Southern pronghorn range has periodic drought and northern ranges have periodic blizzards that can, and do, occasionally kill large numbers of animals. Any pronghorn that mature slowly risk not breeding at all before a particularly bad drought or winter killed them. Conversely, pronghorn that matured quickly and bred at an early age had a better opportunity of leaving offspring.

Thus, the pronghorn we see today have been shaped through evolution to mature and breed at an early age. Pronghorn reach adult body size by 1.5 to 2 years of age. Females usually breed as yearlings; males are capable of breeding as yearlings but may not have many opportunities if older, more dominant males are around. And the horns of males reach maximum size at an early age.

Because the horn sheaths are grown anew each year, factors like precipitation and forage quality appear to affect annual sheath growth rates. The roles of maternal condition during gestation, population density, and genetics in modulating horn growth potential need further study.

#### **Management consequences of large horns being possible on young pronghorn:**

- An exceedingly low harvest of male pronghorn is not necessary for production of trophy pronghorn.
- Instead, pronghorn managers may allow moderate harvest of bucks, and given good range conditions, reasonably expect most pronghorn to achieve their potential in horn growth.

- More people can be given an opportunity to hunt pronghorn, and possible harvest a trophy, than would be possible if pronghorn horns continued to increase in size until males were much older.

Thanks to Carl Mitchell and David Brown for sharing ideas and literature on pronghorn horn growth.

#### **For more information on pronghorn growth patterns see:**

C. D. Mitchell and C. R. Maher. 2001. Are Horn Characteristics Related to Age in Male Pronghorns? *Wildlife Society Bulletin* 29:908–916.

C. D. Mitchell and C. R. Maher. 2006. Horn Growth in Male Pronghorns (*Antilocapra americana*): Selection for Precocial Maturation in Stochastic Environments. *Acta Theriologica* 51:405–409.

K. Morton, P. F. Jones, and M. Grue. 2008. Comparison between Pronghorn Age and Horn Size in Southern Alberta. *Proceedings Pronghorn Workshop* 23:104–114.

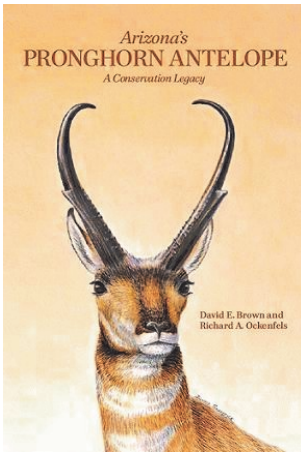
D. E. Brown, W. C. Keebler, C. D. Mitchell. 2010. Hunting and trophy horn size in male pronghorn. *Proceedings Pronghorn Workshop* 24:In press.

Trophy Points: Big Game Research On Line is compiled and edited by David G. Hewitt, a Professional Member of the Boone and Crockett Club and the Stuart W. Stedman Chair for White-tailed Deer Research at the Caesar Kleberg Wildlife Research Institute.



# SOCIAL BEHAVIOR AND THE PRONGHORN YEAR

## EXCERPT FROM "ARIZONA'S PRONGHORN ANTELOPE: A CONSERVATION LEGACY"



*This is part one of a continuing series, where we follow a hypothetical antelope herd through their yearly cycle.*

Buck pronghorn strive to defend prime territories during the summer and early fall when they maintain harems of from two to 15 or more does. Most of the mating, however, takes place within only a matter of weeks, usually in late summer (from

Late August to early September in northern Arizona and from mid-June to August in southern Arizona). After a lengthy gestation of from 240 to 250 days or 8 1/3 months, one or two fawns are born, usually between mid-April and early May. Although twins are often seen in some of the more northern states, siblings are uncommon in Arizona as fewer fawns survive to parturition or through the first few days of life.

The newly born fawns or neonates are highly developed despite weighing less than eight pounds. Those weighing less than five pounds usually succumb to inclement weather and malnutrition. A fawn lies mostly inert for the first week of life, the doe returning periodically from her feeding forays to nurse her offspring. The doe's milk is highly nutritious and the fawn develops rapidly. At only five days of age, a fawn can outrun a man, and is eating vegetation when only three weeks old. Adult pelage is attained at three months of age, and a few fawns have even been known to breed during their first year of life. This is highly unusual, however, and the vast majority of female pronghorn breed as yearlings when they are 15 or 16 months of age.

**Spring:** With the lengthening days of spring, solar radiation warms the soil and combined with the previous winter's moisture, germinates new plant growth. The annual crop of forbs and grasses send shoots through last year's brown stalks, and buds on the branches of deciduous plants open into leaves. Malnutrition did not substantially reduce the herd's numbers during the months of hardship, and now, with green-up, the health of the pronghorn begins to improve. Some old bucks died, as did some late-born fawns as evidenced by their rapidly disintegrating carcasses, but more than 90% of

the herd has lived to see another year.

The fetuses from last autumn's breeding have grown slowly in the wombs of he does. Now that parturition is near, their growth rate increases. Emerging forage allows does to regain lost weight and supply their progeny with the nutrients needed for final development. As a two-year-old, a doe will usually carry only one fawn to term. At three years, she is more likely to produce twins, and in an exceptional year, even triplets. Whether all or any of the fawns survive is problematic, however, and in drought years, she may not even breed. Otherwise, a doe will usually breed every year until she dies, aborting her fetuses in bad years or producing fawns so poorly developed that they die within a few hours after birth.

As spring progresses, the large winter herds of both sexes break up into increasingly smaller groups.. The bucks segregate themselves first, gathering into small bachelor bands; the does and soon-to-be yearlings retain their bonds a while longer. Like the does, bucks are regaining their weight and vigor. Their energy restored, the bucks again reassert their order of dominance. The smaller horned bucks are already sparring more each day, each assuming his position in the social hierarchy. The mature bucks, more confident of their status, now reestablish their territories - selected sites within areas of less than 20 to more than 100 square miles that fluctuate with the home ranges of the does. Proprietary bucks will defend these areas against all other males for the sole purpose of attracting, holding, and breeding the does contained within. The most vigorous bucks will dominate the best habitats and the opportunity to breed the larger numbers of does that reside there. Unlike elk, pronghorn do not corral and defend a harem of females; rather, the buck's strategy is to control access to and from the area chosen by the herd's dominant doe. The number of does in a herd generally reflects the quality of the habitat. Prime areas may support up to 20 or more; poorer areas have only one or two animals. Although the actual breeding season, or rut, is still months away, the bucks are already approaching breeding condition, accompanying and evaluating every doe they approach.

As their pregnancies come to term, the does segregate themselves into ones and twos in search of solitude. For months they have patrolled a home range in quest of the most succulent forage; now each must find a birth site that meets both her needs and those of

*(Continued on page 9)*





*Photo courtesy Arizona Game & Fish Department*

her newborn fawns. Food and water must be at optimum levels if she is to produce sufficient milk for the fawns to survive. Each day she scans the horizon for potential trouble, checking out potential birth sites while noting the presence of any predators. Adequate hiding cover for her fawns is another consideration, as the motionless newborns rely almost entirely on their natural camouflage to survive the first days of life. Left to their instincts, the mothers will choose open, undulating terrain populated with herbaceous vegetation between 11 and 24 inches tall.

By March, fawns are being born in some of the southern populations - even earlier in the desert of southwestern Arizona. Farther north, the fawning peak is sometime between May and June, with peaks around May 8 in Chino Valley, May 18-26 on Anderson Mesa, and June 2-7 in the Springerville area. Although the fawning season in the south is often protracted, some fawns not being dropped until June, the fawn drop in northern Arizona is concentrated within a two- to three-week period as befits populations subject to late springs and early winters. Such synchronized fawn drops have the advantage of producing large numbers of offspring over a short period of time, thus overwhelming any predators present.

After eating the afterbirth, the doe sometimes seemingly ignores the fawn for the first 40-50 minutes after parturition. Although a healthy fawn is able to stand and walk within the first 25 minutes of life, the neonate remains at the birth site with its mother for only about 12 hours. The mother will then lead the youngster to a secluded bed site where it will lie motionless for up

to five hours at a time, with the only maternal contacts being nursing and grooming. Should twins be born, the siblings are generally secluded in separate bed sites. Although the youngsters remain bedded 90% of the time for the next three weeks, they do not bed down with their mother or with other antelope for 20 days or so. Nonetheless, at their mother's bidding, the fawns may change bed sites as often as 10 times a day, never using the same area twice. The purpose of these elaborate behaviors is to hide and protect the young from predators.

It is at this time that well-meaning people sometimes kidnap fawns they think have been abandoned. Such animals become imprinted on humans almost immediately, and those raised in captivity invariably get in trouble in later life. One such animal, a male in Avra Valley dubbed "Amorous Andy", would attempt to mount any woman that came near him.

Although fawns grow rapidly, many die within several weeks of birth. Predators take a toll, but such losses are usually minor when compared to the number lost to "weak fawn syndrome" and inclement weather. Does continue to interact with each other in their own dominance hierarchy during the nursing period, but they do not generally baby-sit each other's fawns in "nurseries." Some bucks do tend the youngsters, however, and even though both bucks and does commonly chase away coyotes, it is the bucks that are known to actually kill these predators. Healthy fawns are tenacious of life and within a month the youngsters, miniatures of their mothers, are joining up with other does and their fawns.

Preparation for life in pronghorn society begins at birth and progresses through three phases - the neonatal phase, the post-neonatal or nursery-herd phase, and the yearling phase. By four weeks of age, the siblings are spending increasing amounts of time together, frolicking and interacting with others of the new generation as they seek to establish their place in pronghorn society. Soon, each youngster is relegated to his or her place in the herd, learning to interact socially, first with siblings, and then with other fawns. By 11 weeks of age, a dominance hierarchy or "pecking order" is established for both sexes. In four months, the youngsters are feeding entirely on vegetation, with male fawns being weaned two to four weeks earlier than the females. The fawns are now on their way to becoming yearlings, when the females will first breed. The males, while sexually mature as yearlings, are not socially mature enough to acquire a territory.

*Continued to the next Pronghorn issue, or you can purchase the book on our website to keep on reading!*

# 25<sup>TH</sup> BIENNIAL PRONGHORN WORKSHOP

BY GLEN DICKENS

The Arizona Antelope Foundation recently co-sponsored along with The Wildlife Society and the New Mexico Game and Fish Department the 25th Biennial Western States and Provinces Pronghorn Workshop. It was held over four days in December 10-13 2012 at the Santa Ana Pueblo north of Albuquerque and included over 100 participants. Dave Brown and Glen Dickens attended on behalf of the AAF and staffed a booth discussing our organization, its purpose and providing copies of the quarterly "Pronghorn" to participants. Dave participated on a panel discussion and Glen presented a paper on the "Arizona Antelope Foundations Southeastern Arizona's Grasslands Initiative."

The workshop included technical papers and posters on the status and management of pronghorn including reports from State, Provincial and other agencies and research findings, and approaches to habitat and population challenges and management. It also included a field trip, banquet and awards presentations. Papers were provided from 10 different states and provinces. Suffice to say that if you are involved in pronghorn management throughout their entire distribution this is a "must attend" workshop every two years.

A panel discussion was held on the second day with the topic being "Pronghorn in the Desert Southwest". Panel members included Dave Brown of Arizona State University, Amber Munig AGFD Big Game Supervisor, Shawn Gray, Deer and Pronghorn Program Leader, Texas Parks and Wildlife and Kevin Rodden, Deer and Pronghorn Biologist, New Mexico Game and Fish Department. Major challenges are facing pronghorn populations in this region with some of the key reasons including but not limited to; continuing drought, predation, parasites and fragmentation of habitat. Suffice to say that over the near and longer term agencies will have to more actively intervene and more intensively manage particular herd areas for their long-term survival and existence.

Kudu's go out to our New Mexico Game and Fish Department hosts including Kevin Rodden, Deer and Pronghorn Biologist, Elise Goldstein and Eric Rominger, Sheep Biologists, Ryan Walker of the Raton Region and Darrel Weybright Assistant Chief of the Wildlife Management Division. It was an honor and privilege for the AAF to partner on such an important event in our "neighborhood", thanks for the opportunity!

25<sup>th</sup> Biennial Western States & Provinces

## Pronghorn Workshop



Hyatt Regency Tamaya Resort  
Santa Ana Pueblo, New Mexico  
December 10-13, 2012



25<sup>th</sup> Biennial Western States & Provinces

## Pronghorn Workshop

Sponsors



Hyatt Regency Tamaya Resort  
Santa Ana Pueblo, New Mexico  
December 10-13, 2012



# SONORAN PRONGHORN UPDATE



BY JILL BRIGHT AZ GAME & FISH  
MARCH 28, 2013

## *Captive Breeding:*

### Cabeza Prieta Captive Breeding Pen

Currently, there are 77 pronghorn in the Cabeza breeding pen, 33 in north herd and 44 in south herd. The first fawn born in the pen was observed on 26 February. Currently we have 7 fawns in north herd, and 13 in south herd. There are at least four females in both the north and south herds that still appear pregnant. We believe one adult female in north herd lost her fawn(s). She previously was looking pregnant, but does not anymore, nor is she producing any milk, and she was not observed with any fawns.

Harris's hawks, Red-tailed hawks and Turkey Vultures have been observed perched and roosting in the pen. There has been no confirmed harassment or mortality of pronghorn in the pen. Illegal alien tracks were observed along the south fence, and Border Patrol picked up two near the pen in March.

The pen received 0.07" of rain. The forage in the pen and Childs Valley still looks abundant. The ocotillos have leafed out and some small forbs are growing. However, as temperatures are climbing, it is beginning to dry out. We expect to begin irrigating in the pen in the near future.

Three bucks previously released from the pen continue to range in the vicinity of the pen. A female, released in 2010, has returned to the vicinity of the pen, and was seen with two small fawns.

### Status of Pronghorn in Cabeza Pen

March 2013

NORTH HALF		SOUTH HALF	
Adult Females	10	Adult Females	11
Yearling Females (b 2012)	5	Yearling Females (b 2012)	9
Yearling Males (b2012)	9	Yearling Males (b2012)	9
Breeding Buck (b 2010, Purple 3)	1	Breeding Buck (b 2010, Yellow 3)	1
Back-up Buck (b 2011, Yel/Blk 3)	1	Back-up Buck (b 2011, Green 4)	1
Fawns (born 2013)	7	Fawns (born 2013)	13
<b>TOTAL</b>	<b>33</b>	<b>TOTAL</b>	<b>44</b>
<b>Total Pen</b>		<b>77</b>	

(Continued on page 12)

**Kofa Captive Breeding Pen**

There are currently 22 pronghorn in the Kofa pen. The majority of the adult females are showing signs of pregnancy, but we have not observed any fawns yet. Yellow still maintains a severe limp. She continues to be observed foraging at the feeders, but remains underweight. She does not appear to be pregnant. Maroon doe seems to be the furthest along in her pregnancy, and we are expecting her to be the first to deliver.

February precipitation was 0.06” received in one event at the pen. Forage conditions at the pen are improving due to the rains received in January and February. The brittlebush, white bursage, and ocotillos are leafing out and the brittlebushes have put out a few flowers. Supplemental alfalfa feeding decreased in February from 32.75 bales fed in January to 25.25 bales fed this month.

We are currently working on finishing several construction projects at Kofa pen. These include: building capture bomas for a capture/release operation in Kofa pen this winter, setting up an auxiliary fuel tank for the generator to power the well and irrigation system, contracting electricians to wire the well pump and head pump, plumbing the 2,500 gallon storage tanks together, constructing 10 additional feeders, updating the electric fences to make them more secure, replacing 2 swinging wash gates that were destroyed during last year’s monsoons, and working with a contractor to construct a better observation tower.

**Status of Pronghorn in Kofa Pen**

	March 2013
Adult Females	11
Yearling Females (b 2012)	4
Yearling Males (b2012)	5
Breeding Buck	1
Back-up Buck	1
Fawns (born 2013)	0
<b>TOTAL</b>	<b>22</b>



**2012 Released Pronghorn**

The pronghorn released on the BMGR-West have remained in the same general area. The pronghorn on ORPI have been using the southern Valley of the Ajo, and one male was seen near Bates Well. Two of the pronghorn released on Kofa have moved west of the pen, near Stagecoach Pass. Unfortunately 5 of the 6 GPS collars we put on released pronghorn at Kofa have fallen off, so we can no longer locate them. The company that manufactured them failed to put lock washers on some of the screws, and the screws worked themselves out, and the collar opened and fell off. One of the pronghorn released on the BMGR-West also lost the collar for the same reason.

**Water Projects:** With the help of the Yuma Valley Rod and Gun Club and USFWS, the new 11,000-gallon water in Childs Valley (Morgart Tank) that we were unable to finish in February was completed in March. Two backhoes outfitted with a rock bucket and hammer drill were used to finish excavating the site, and additional materials were flown in via helicopter to avoid wilderness impacts. We were planning to utilize the near-by original temporary water until the new permanent water filled with summer rains, but the temporary water was vandalized by illegal aliens and all the stored water was lost. To ensure water is available for pronghorn in this location, Game and Fish and USFWS personnel pumped 4200 gallons of water to the tank on 27 March. This was accomplished by pumping water utilizing 0.5 miles of fire house, two game carriers, five water buffalos, and two water trucks. On 21 -24 March the Yuma Valley Rod and Gun Club and personnel/volunteers from USFWS assisted us in completing the new 17,000 gallon Chain Tank water on Kofa Refuge. We plan to haul water to this new system soon. With the completion of Chain Tank, there are now three waters in the King Valley portion of Kofa available for pronghorn.

(Continued on page 13)

**Forage Enhancements:** Charlie Bell forage plot received 0.02 inches of rain in March. We will begin irrigating in the next couple of weeks. Several pronghorn have been photographed using the water and hay.

At least one wild pronghorn has been photographed using the Lower Well forage plot water recently; however the site is also heavily used by illegal aliens, often in groups of 10 or more, so it's usefulness for pronghorn is decreased.

**Other Projects:** Nothing new to report.

**Wild Pronghorn Cabeza/ORPI/BMGR herd :** On the last telemetry flight (10 March), 5 fawns were seen with 3 females.

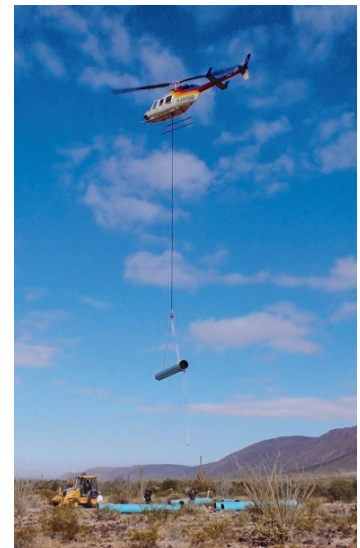
## Building and Filling Morgart Pronghorn Water



*Laying out the fire hose to fill storage tanks*



*Digging the trench for storage pipe*



*Hauling pipe by helicopter*



*0.5 miles of hose*



*Staging area*



*Finished trough full of water*

*(A Matter of Necessity continued from page 3)*

supply. In response to this demand, Arizona ranges were stocked at even higher levels, even though rangelands were already at capacity and suffering from overgrazing. When America entered the war in 1917, the killing of pronghorns and all other big game animals was carried out in a spirit of patriotic duty, in that by eating wild game meat at home, more livestock could be shipped to feed the troops overseas.

After the war ended, returning soldiers were encouraged to homestead small ranches in the West, creating numerous rural populations. When the postwar depression struck, pronghorns and other "free" wildlife were the natural food of choice to fill hungry bellies. By 1921, pronghorn populations hit an all-time low. Estimates indicate that only 11,750 pronghorns remained in the entire United States and Canada, 650 of them in Arizona. The pronghorn was on the brink of extinction.

Alarmed conservationists struggled to stop the decline of the pronghorn. Their efforts focused on improving the enforcement of game laws and convincing ranchers that restocking pronghorns to former habitats would not interfere with livestock grazing; pronghorns and cattle do not eat the same forage, except in times of dire circumstances, such as drought. Gradually, with the cooperation of ranchers, the control of predators, a decline in livestock grazing pressure after World War I, and the formation of the Arizona Game Protective Agency, which led to better compliance with state game laws, the pronghorn picture began to brighten. By 1941, their numbers had grown to several thousand, and the first authorized buck-only hunt was held in Arizona. As the pronghorn populations increased in northern Arizona, animals became available for translocation to southern Arizona habitats and pronghorn numbers continued to rise.

Recovery was hampered during the 1940s and 1950s by poor precipitation and, probably, coyote predation. The pronghorn season was once again closed until their numbers increased enough to justify a hunt. The 1960s brought two occurrences which were disastrous for Arizona's pronghorn herds. The first was man-made. It started then, but continues to be an ongoing threat: the "40-acre ranchette," with the lure of "You can view wildlife right from your very own kitchen window." These developments quickly escalate from luring the people who love to observe wildlife, to driving the "bait" away because pronghorns cannot exist with the barriers caused by the developments; the proverbial "Catch 22"! With loss of prime habitat comes loss of pronghorn numbers. Alas, it's just that simple.

The second event, a natural disaster in the form of the winter storm of 1967-68, killed off hundreds of pronghorns in the north, reducing populations to levels that severely handicapped their recovery. Most herds lost half their population, while 85% of the premier

Anderson Mesa herd perished. Fewer than 4,000 pronghorns survived statewide, and recovery from that storm lasted throughout the 1970s and 1980s.

Unfortunately, the drought which has held Arizona in its grip for the last six years has decreased pronghorn numbers to less than 8,000 statewide. To add to their present plight, they confront an ever-increasing number of highways, subdivisions, fences, and other developments. Because Arizona's human population is burgeoning, more and more prime pronghorn habitat is being lost. As the demand for beef continues to decline, many ranchers, finding it increasingly difficult to make a living from livestock, are succumbing to the big money offered by developers and selling out. Even though the ranchers who persevere no longer view the pronghorn as competition to their livestock for forage, thousands of miles of old barbed wire fence, with the last strand lying on or mere inches from the ground, still remain in existence, hampering the pronghorns' freedom of movement. Brush encroachment is another major threat to their habitat.

Can anything be done to maintain pronghorn herds? Can anything be done to increase herd numbers? Is there anybody out there who cares enough to make sure this noble animal will always be a part of our Arizona heritage, with numbers great enough to sustain regulated hunts in the future? The answers are yes, yes, and yes.

On October 3, 1992, a group of concerned sportsmen and wildlife conservationists formed an organization known as the Arizona Antelope Foundation. They dedicated themselves to increasing the Arizona pronghorn population by advocating and actively participating in pronghorn management and habitat improvement programs. In just eight short years, this organization has made a positive impact on the welfare and enhancement of pronghorn herds in Arizona.

Work projects are the Foundation's mainstay, conducted at the rate of at least four per year. Members combine forces with ranchers, the Bureau of Land Management, the United States Fish and Wildlife Service, the United States Forest Service, the Arizona Game and Fish Department, and other wildlife and conservation organizations to improve pronghorn habitat. Many miles of fence have been completely removed by these dedicated volunteers. They have modified hundreds of additional miles by removing the bottom two barbed wire strands and replacing them with a single smooth wire strand 18 to 24 inches above the ground. This modification allows pronghorns to move easily from one side of a fence to the other in order to escape predators, reach water or forage, and migrate from winter storms. Several projects involved completely removing old fences and erecting new fences. Other projects include the building or repair of water sources and the removal or

*(Continued on page 15)*

(*A Matter of Necessity* continued from page 14)  
burning of encroaching brush.

The Arizona Antelope Foundation works closely with the Arizona Game and Fish Department to identify potential work projects and coordinate efforts to complete such projects. The Foundation also presents proposals to various task forces in the state consisting of recommendations that specific state lands with pronghorn populations be set aside as critical habitat for wildlife corridors essential to pronghorn survival.

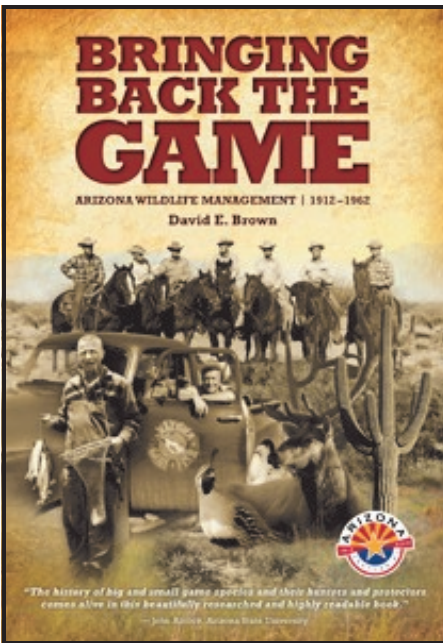
Every year the Foundation conducts a hunters' clinic. This is a very positive and successful event, which was conceived as a way to ensure that all first-time pronghorn hunters are prepared for such an undertaking. Experts speak on topics such as pronghorn behavior, trophy judging, hunting tactics, optics, ethics, photographing one's trophy, and care of hide, horns, and meat. Even veteran hunters say the clinics have added to their knowledge of pronghorn hunting, and all partici-

pants leave with information essential to a successful pronghorn hunt.

Through the Arizona Game and Fish Department's special big game permit program, the Foundation has provided close to half a million dollars for pronghorn habitat improvements and research leading to better pronghorn management. The Foundation has also worked with the Department on translocation projects wherein pronghorns are returned to historic habitats and moved to replenish existing herds.

The attempt to maintain or increase pronghorn numbers on ever-diminishing land is an incomparable challenge, but the members and leadership of the Arizona Antelope Foundation are prepared to meet that challenge. Their mission is to cooperate with landowners, developers, and agencies not only to ensure that this magnificent animal will always remain in Arizona, but also to see that the mistakes and transgressions of the past are never repeated.

## BRINGING BACK THE GAME: ARIZONA WILDLIFE MANAGEMENT 1912-1962 BY DAVID BROWN



A newly published book, "Bringing Back the Game: Arizona Wildlife Management, 1912-1962," examines wildlife management in Arizona during the state's formative years as sportsmen, and later professional game wardens and biologists, worked to return game popula-

tions to abundance and to provide more fishing opportunities for anglers. This comprehensive 490-page book has 35 chapters in five sections, and includes more than 150 historical photographs.

Several chapters discuss the development of techniques for managing pronghorn, including the establishment of pronghorn ranges, the progression of capture techniques, and the evolution of hunting.

Published by the Arizona Game and Fish Department, this is the third in a series of wildlife histories that began with "Man and Wildlife in Arizona: The American Exploration Period, 1824-1865," and continued with "Arizona Wildlife: The Territorial Years, 1863-1912." The Arizona Wildlife History Series now covers almost 140 years of efforts to conserve, use and manage wildlife in the Grand Canyon State — a significant achievement.

Author David E. Brown (AAF Life Member and Past President) is a retired biologist and adjunct professor at Arizona State University and the University of Arizona. He worked for the Arizona Game and Fish Department from 1961 to 1988. He has authored or edited many books, including "Arizona's Pronghorn Antelope: A Conservation Legacy" (with Richard A. Ockenfels, published by AZ Antelope Foundation).

"Bringing Back the Game" is available for \$19.95. It and the other books in the Arizona Wildlife History Series are available for sale at all Arizona Game and Fish offices, or by downloading and printing the publications order form at

[www.azgfd.gov/publications](http://www.azgfd.gov/publications).



## SHORT SHOTS

### HARRY HUSSEY TRAILER FUND

Thanks to generous contributions from our members and a grant from the AZSFWC License Plate Fund, our trailer has been purchased. We now are in the process of the interior build to make the best use of the space. Thanks to the Shane Stewart family for their efforts and donations to this effort. We continue to ask our membership to help us reach our fundraising goal to complete the final phase - a custom wrap that will honor Harry, recognize the contributors, and advertise the Foundation. Any funding we receive over and above our goal will be set aside to be used for future maintenance.

Please send your donations to:  
AZ Antelope Foundation  
Att: Hussey Memorial Trailer Fund  
PO Box 12590  
Glendale, AZ 85318

You may also click on the  
DONATE button on our website at  
[www.azantelope.org](http://www.azantelope.org)

### AZ DIAMONDBACKS OUTDOOR REC DAY

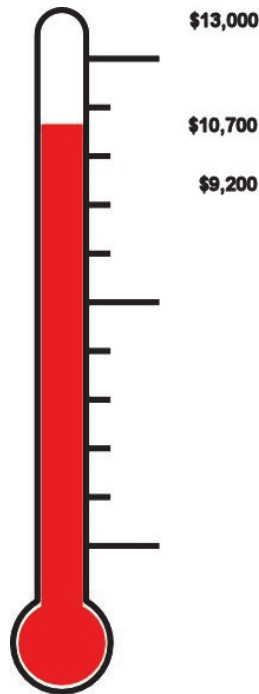
Join the AAF on April 27th at Chase Field for a fun outdoor expo, and stay for the game vs. Colorado Rockies. Buy a ticket for the game from the AAF for \$15, and \$5 comes back to the AAF. For more information, visit our website:

[www.azantelope.org](http://www.azantelope.org)

### COMMISSION AWARDS

AAF members David Brown (Life Member and Past President), Glen Dickens (Life Member, Director), and Don Martin (AAF Member and contributor) for being selected to receive honors from the AZ Game & Fish Commission at the annual Meet the Commission Banquet held last January. All three are very deserving and have contributed to wildlife conservation for many years!

Fundraising Goal



### WORK PROJECTS PRODUCE BLISTERS, BACKACHES, STRONG FRIENDSHIPS, GOOD FEELINGS

Where would Arizona's pronghorn be today if not for the dedication of hard working people who plan and carry out our important habitat projects? It is not a pleasant thought, so the AAF continues to do what it can to preserve this beautiful creature! Please think about joining us on one of our upcoming projects for 2013!

**May 4 - Rose Tree Ranch**  
**June 15 - Kendrick Park**  
**August 17 - Kendrick Park**  
**September 28 - Bonita**

### SB1223

The Arizona House has scheduled Senate Bill 1223 for a third read on Monday, April 15. SB 1223 is a bill that would allow the Arizona Game and Fish Commission to set future license structure and fees directly through a streamlined, customer-focused process.

The bill passed the Arizona Senate on March 6 by a 26-2 vote. It is supported by 24 sportsmen's organizations, including the AAF.

SB 1223 would allow the Game and Fish Commission and Department the flexibility to operate more like a business and better react to changing market conditions and customer needs. Benefits would include:

- Simpler, easier-to-understand license structure
- Opportunity to offer better license products at an increased value
- Improved timeliness in responding to customers' demands

If the legislation were to pass and be signed into law, a new, simpler license structure would be established through a customer-focused rulemaking process. The Commission and Department would still be under Legislative oversight, and there would be checks and balances on the Commission's new authority under this bill.

View more information at  
[www.azgfd.gov/LicenseSimplification](http://www.azgfd.gov/LicenseSimplification).



# MEMBERSHIP

## LIFE MEMBERS

- |                                  |                                    |                                   |
|----------------------------------|------------------------------------|-----------------------------------|
| 1. Art Pearce, Phoenix           | 17. James Stewart, Phoenix         | 33. Bob Walker, Phoenix           |
| 2. Jim Mehen, Flagstaff          | 18. Terry Schupp, Tempe            | 34. Cookie Nicoson, Williams      |
| 3. Larry D. Adams, Bullhead City | 19. Dale Hislop, Calgary Canada    | 35. Tim Blank, Mesa               |
| 4. James K. McCasland,           | 20. Mick Rusing, Tucson            | 36. Jodi Stewart, Gilbert         |
| 5. Nina Gammons, Payette, ID     | 21. George Welsh, Kingman          | 37. Keith Joyner, Scottsdale      |
| 6. Nancy Lewis, Phoenix          | 22. Matthew Massey, Gilbert        | 38. David Hussey, Cave Creek      |
| 7. Pete Cimellaro, Phoenix       | 23. Don Parks, Peoria              | 39. Susan Pearce, Tucson          |
| 8. Jerry Weiers, Phoenix         | 24. Bill & Kerrie Jacoby, Chandler | 40. Glen Dickens, Tucson          |
| 9. Harry Carlson, Phoenix        | 25. Adam Geotzl, Cottonwood        | 41. Will Garrison, Peoria         |
| 10. David Brown, Phoenix         | 26. Shane Stewart, Gilbert         | 42. Tom Waddell, New Mexico       |
| 11. Art Boswell, Tucson          | 27. Don Davidson, Mesa             | 43. Josiah Austin, Pearce         |
| 12. Charlie Kelly, Scottsdale    | 28. Terry Petko, Mesa              | 44. Connie Taylor, Mesa           |
| 13. Chrissy Weiers, Phoenix      | 29. Gary M. Johnson, Phoenix       | 45. Mark Boswell, Mesa            |
| 14. Al Sue, Scottsdale           | 30. Richard Guenzel, Laramie WY    | 46. Jessica R. Pearce, Scottsdale |
| 15. Mary Keebler, Happy Jack     | 31. Randy Cherington, Scottsdale   | 47. Douglas Hartzler, Phoenix     |
| 16. Bill Keebler, Happy Jack     | 32. Joe Del Re, Chandler           | 48. Karen LaFrance, Phoenix       |

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Robert Bushong, Yuma	Randy Gaskill, Show Low	Derek Oyen, Anthem
Bill Cole, Glendale	Roger & Ilene Hailey, Flagstaff	Walt Scrimgeour, Prescott
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Linda Dightmon, Peoria	Susan Morse, Jericho VT	David L. Wolf, Flagstaff
Michael Domanico, Scottsdale	Richard Ockenfels, Mayer	

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Neal & Abby Brown, Glendale	Dave & Sue Laird, Peoria	William & Jan Skibbe, Tucson
Richard & Julia Chabak, Glendale	Thomas McDaniel, Phoenix	Barry Sopher, Tucson
Ken & Kathy Cook, Casa Grande	Kim Neill & Family, Mesa	Floramae & Tomas Teskey, Mayer
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Ron & Sharon Eichelberger, Alpine	Matthew Phillips, Yuma	Jim Wood, Glendale
Chad & Audrea Elliott, Ehrenberg	Daniel Robinett, Catalina	
Brian George, Scottsdale	David & Debra Scott, Glendale	

## WELCOME NEW MEMBERS

Marci Alderman, Gilbert	Kellie Dunn, Tempe	Chad Ramsey, Tampa, FL
Jack Barnes, Sun City	Chad & Audrea Elliott, Ehrenberg	Marsha Sue, Scottsdale
Frank Burchi, Tempe	Brad Olson, Chandler	

**CONGRATULATIONS TO OUR NEWEST LIFE MEMBERS**  
**#47 DOUGLAS HARTZLER, PHOENIX**  
**#48 KAREN LAFRANCE, PHOENIX**