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:
Lenée Landis, Pronghorn Editor, PO Box 19420, Fountain Hills, AZ 85269 or by email at info@azantelope.org.
Captive Breeding:
Cabeza Pen

The pronghorn in the captive breeding pen have been recovering well after captures. All the animals appear to be uninjured and in good health. North and South herds have been staying in larger groups, usually congregated around the feeders. The herds will occasionally meet up along midline fence to socialize. South herd was more active during the beginning of the month than North. We observed South herd chasing each other and bucks sparring throughout the month. North herd was fairly quiet for the first week; their chasing and sparring did pick up later in the month.

The pen has been very dry. Rain finally came to Childs Valley around the January 20, with several more rains through the rest of the month. In total, the pen got about 1.6 inches of rain. Alfalfa consumption has remained high despite the rain. We expect the pen to green up substantially with slightly warmer temperatures. The pen was irrigated for 16 hours prior to the rain. The pen crew has also been working on taking down the bomas from captures, repairing broken irrigation lines, and maintaining and improving the electric and perimeter fences.

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<td>Yearling Females (b 2020)</td>
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<td>Adult Males</td>
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<td>Fawns (b 2021)</td>
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<td><strong>TOTAL</strong></td>
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<td><strong>Total Pen</strong></td>
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Kofa Pen

The pronghorn in the Kofa pen are doing well. One of the older females seems to have a hip or leg issue, and is often by herself or with another injured doe. Kofa pen also got rains starting January 20, with a total of 0.9 inches. The pen crew has been working on maintaining and repairing the water inside the pen which had become blocked with debris and wasn’t filling correctly, as well as shoring up the pen against predators and preparing washes for monsoon flows. They also took down the padding on the bomas and associated infrastructures from the captures.
Wild Pronghorn Cabeza/ORPI/BMGR Herd:
This area also got rain in late January which should greatly improve forage and habitat conditions. Three bucks were released near the Cabeza pen during the December release, and they remained around the pen for several weeks. Two are still being observed with other wild pronghorn near the pen, but one moved north 15 miles to the Tactical Ranges, then back south 20 miles to the Granite Mountains. Ten pronghorn were moved to the Organ Pipe holding pen and released on December 30, 2020. These pronghorn have mostly stayed together and have joined with some wild pronghorn in the Valley of the Ajo.

Wild Pronghorn Kofa Herd:
This area received rain in late January as well. Fourteen pronghorn were moved from the Kofa pen to the holding pen in the Palomas Plains area and released to the wild in January 2021. At least 5 of them have remained in the area of the holding pen and joined with wild pronghorn. Three bucks and three does initially moved about 27 miles north towards Interstate 10. One of these does, then moved 42 miles southeast, and is currently about 35 miles from the holding pen. Another doe moved back south 40 miles and is in the King Valley on Kofa. The third doe crossed Interstate 10 and moved about 3 miles north, and was killed by coyotes. Of the bucks, one was hit on Interstate 10 and another moved back south and was killed by coyotes about 2.5 miles west of the holding pen. One buck remains just south of Interstate 10.

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<td>Fawns (b 2021)</td>
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<td>TOTAL</td>
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Wild Pronghorn Sauceda Herd:
This area also received about 0.9 inches of rain in late January. Twenty-one pronghorn were released into the Sauceda herd in January from the Cabeza pen. Most remained around the holding pen for several weeks where food and water were available. Three moved south. After the rains, they have begun wandering further east and north and some have likely met up with wild pronghorn. There was a mortality (coyote predation) on a newly released buck on February 10. A doe from the 2019 release was also found dead, killed by a mountain lion.

Water Projects:
We completed the Ku:Wud water in the Sauceda subunit in the end of January. This new 17,000 gallon water will provide much needed water in this area when it fills. We will maintain the temporary water at this location until the permanent water has filled.

Forage Enhancements:
Rain fell in the vicinity of all our forage enhancements in late January. Charlie Bell got 1.24 inches; we expect conditions to improve and pronghorn to move off these sites as the weather warms. Charlie Bell has had about 10 pronghorn visiting it, all unmarked wild pronghorn. Knucklehead has had 13 wild and released pronghorn. Hat Mountain in the Sauceda subunit had about 5 pronghorn visiting it. South release, Dog Leg, SWTR, and 542 near the YPG release pen have also been receiving continuing use by pronghorn within the Kofa/YPG subunit.

Other Projects:
We completed a range-wide survey for pronghorn in the King Valley area on KOFA and south into YPG and east towards the agricultural pivots on January 15 -16. We covered 422 square miles. We observed 107 pronghorn. Three groups totaling 26 pronghorn were observed on KOFA NWR, and 14 groups totaling 81 animals were observed south of Kofa on YPG and state lands. If we use the group size based sightability estimator developed for Cabeza, the estimate would be 144. However, while the habitat on Kofa NWR is similar to Cabeza, the habitat south of Kofa on YPG is much more open and less complex. This makes it likely we were able to detect pronghorn easier and in smaller groups, and likely missed fewer pronghorn. Therefore we suspect the Cabeza estimator likely overestimates pronghorn in the Kofa sub-unit. We need to work on developing an estimator for this area. At a minimum we know we have 107 pronghorn currently in this herd. We did not survey the Palomas Plains area; based on telemetry and photos on waters, we think we have a minimum of 32 additional pronghorn there.

Written February 11, 2021
Captive Breeding:
Cabeza Pen

The pronghorn in the Cabeza pen are doing relatively well during this reporting period. There was zero measurable rain at the pen, and the pen remained dry. A fawn buck and a yearling buck were found dead in September; causes of death could not be determined.

The annual capture/release took place December 9 – 10, 2020. All captured pronghorn were vaccinated, had blood drawn for disease and genetic testing and were marked. All pronghorn being released were fitted with either GPS or VHF collars. Breeding females being released back into the pen were fitted with VHF collars if needed. Fawns returned to the pen got color coded ear tags. There were no serious injuries or mortalities during the capture or handling operation. This year, due to Covid-19 restrictions we did the capture with a very small crew and many people had to perform two or three jobs. Many thanks to everyone who assisted.

Processing started in the north herd on December 9. Thirty animals were handled and processed. Eleven pronghorn (5M, 6F) were transported via trailer to the holding pen in the Sauceda herd area east of Highway 85 on the BMGR. One buck was moved from the north pen to the south pen for future breeding purposes. On Thursday, 40 pronghorn in the south herd were processed. An additional 10 (5M, 5F) were trailered to the Sauceda holding pen, and 10 (5M, 5F) were transported to the holding pen on Organ Pipe Cactus NM. Three additional males were collared and released at the Cabeza pen. The pronghorn in the holding pens will be released to the wild after approximately 3 weeks of acclimation and monitoring for any injuries or issues. There were no immediate injuries or mortalities. The Organ Pipe Cactus pronghorn were released to the wild on December 30, and the Sauceda herd was released on January 6.

All the pronghorn handled and released back into the Cabeza pen are also doing well and are injury free.

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<td><strong>TOTAL</strong></td>
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<td><strong>Total Pen</strong></td>
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**Kofa Pen**

The pronghorn in the Kofa pen are doing well, however there has been no measurable rain at the pen or in the surrounding areas of Kofa Refuge. We conducted the annual Kofa capture/release on December 18, 2020. Thirty-three pronghorn were caught in the bomas and processed on the 18th. Fourteen pronghorn were moved by trailer to the holding pen in the Palomas Plains where they were held for acclimation. The remaining pronghorn were returned to the pen for breeding purposes or they were too young to be released. The pronghorn in the holding pen were released to the wild on January 7. There were no injuries or mortalities.

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<td><strong>TOTAL</strong></td>
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**Wild Pronghorn Cabeza/ORPI/BMGR Herd:**

There has been no significant rain and the pronghorn range remains dry. We have had difficulty doing telemetry flights with our limited personnel and we are stretched thin maintaining waters and forage plots throughout pronghorn range. On a November telemetry flight, the collared pronghorn were found mostly on Organ Pipe Cactus NM, and on the North Tactical Range of BMGR, two areas that had received some rain and were greener than elsewhere. On that flight a doe was heard on mortality in ORPI, subsequent investigation did not reveal a cause of death. In September, a buck was killed on Highway 85 within ORPI. On this flight we observed 12 fawns with 25 females leading to a fawn:doe ratio of 48:100.

**Wild Pronghorn Kofa Herd:**

We did one telemetry flight in October over Kofa. The pronghorn that had been near Highway 95 had returned to the pen area. There were no mortalities detected. We observed 16 fawns with 25 does leading to a fawn:doe ratio of 64:100. Many of these fawns were with the does on YPG and the does that returned to the pen and had alfalfa available to them.

**Wild Pronghorn Sauceda Herd:**

This area did receive some rain and has been in better condition most of the fall than other areas. On an October telemetry flight, we only found one group of 3 pronghorn north of the Sauceda Mountains. All the other observed pronghorn were south of the mountains. There were two mortalities detected; one 7 year old doe north of the Sauceda, and a 2-year old buck west of Hat Mountain. The buck was likely killed by coyotes, and doe has not been investigated yet. We observed 7 fawns with 19 does, leading to a fawn:doe ratio of 36:100.

**Water Projects:**

We have been busy hauling water to various waters throughout pronghorn range as there has been no rain to fill most of the waters. The one exception was Devils Hills where an early September rain filled the water and greened up a small area.
Numerous wild pronghorn at a water on YPG

We plan to build the new Ku:Wud water in the Sauceda herd in January 2021. Ku:Wud is the Tohono O’odham word for pronghorn.

Forage Enhancements:
Habitat conditions were poor throughout pronghorn range for most of the fall. Numerous pronghorn including several fawns have been documented using our forage/water sites including Devils Hills, Point of the Pintas, Knucklehead, Uken, Morgart and Charlie Bell, all located within the original range. Numerous pronghorn are using Hat Mountain and the temporary Ku:Wud waters in the Sauceda subunit. South release, Dog Leg, SWTR, and 542 near the YPG release pen have also been receiving heavy use by pronghorn within the Kofa/YPG subunit.

Other Projects:
We constructed a temporary holding pen for pronghorn in the Vekol Valley in anticipation of releasing a new herd there. However further observations and analysis determined that the area was extremely dry. In all the areas where we did release pronghorn this year, range conditions were described as only fair, however there were wild pronghorn nearby and we expect the new pronghorn to be able to join up with them and have a greater chance of survival. Since there are no pronghorn in the Vekol Valley, the new pronghorn would be on their own in a dry area and we felt this was too risky for their survival. We hope to be able to move some there next year.

The Sonoran pronghorn range wide survey in the original range south of Interstate 8 took place November 21 - 29. We observed 212 pronghorn on transects, which led to an estimate of 257 pronghorn using a sighting rate estimator. This was the most observed on transects since we started doing the surveys in 1992, and the highest estimate since 1994 (was 282 in 1994). Pronghorn were seen throughout the range, with 90 observed on the Air Force blocks north of Cabeza, 40 on the Cabeza Refuge, 25 in ORPI, and 57 in the Mohawk Valley on the Marine Range. During the survey, we observed a fawn:doe ratio of 52:100.

We plan to do a similar aerial survey in the King Valley area on Kofa and YPG in January to get a better estimate of how many pronghorn are in that herd now.

Written January 9, 2021
Captive Breeding: Cabeza Pen

The pronghorn are being observed on a regular basis during scoping. There have been several mortalities this month. A doe that had an abscess on her stomach for several weeks eventually lost weight and died, although the abscess disappeared in her last few days. A 2-year old doe was found dead on August 14, cause unknown. Both does were in the north pen. A yearling buck in south pen and a fawn buck in north pen were also found dead with no known causes of death. There is a small young coyote in the pen, but there is no sign that he killed any of them, although he was observed chasing the pronghorn on one occasion. We are trying to remove the coyote but have not been successful yet. We suspect we may have a disease issue in the pen. The month of August was dry with no measurable rain at the pen. There was sporadic rain in the vicinity of the pen and throughout pronghorn range over the last week of August.

The pen biologists have been busy monitoring the pronghorn in the pen, irrigating the pen, monitoring released/wild animals in the Childs Valley, and irrigating and maintaining the habitat enhancements for wild pronghorn in Child’s Valley and in the Sauceda subunit.

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<tr>
<th>NORTH HALF</th>
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<td>Adult Females</td>
<td>8 Adult Females</td>
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<tr>
<td>Yearling Females (b 2019)</td>
<td>9 Yearling Females (b 2019)</td>
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<td>Adult Males</td>
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<tr>
<td>Yearling Males (b 2019)</td>
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<tr>
<td>Fawns (b 2020 8 M, 9 F)</td>
<td>17 Fawns (b 2020, 7 M, 10 F)</td>
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<td>TOTAL</td>
<td>43 TOTAL</td>
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<td>Total Pen</td>
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**Kofa Pen**

The pronghorn in the Kofa pen are being carefully monitored. We have not detected any additional mortalities in the Kofa pen in the last month. There has been no measurable rain at the pen or in the surrounding areas of Kofa Refuge. The biologists continue to monitor the well and make adjustments to the solar panels to try to make the well pump more water. Numerous wild pronghorn (17+) including 3 fawns have returned to the vicinity of the pen where there is water and alfalfa available to them. The biologists have had to haul water numerous times this month to keep up with the consumption outside the pen. Numerous deer are also utilizing the water and hay as it is very dry on Kofa.

<table>
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<th>Population</th>
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<tr>
<td>Adult Females</td>
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<tr>
<td>Yearling Males</td>
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<tr>
<td>Fawns</td>
<td>14</td>
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<td><strong>TOTAL</strong></td>
<td><strong>46</strong></td>
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**Wild Pronghorn Cabeza/ORPI/BMGR Herd:** We have had difficulty doing telemetry flights with our limited personnel stretched thin maintaining waters and forage plots throughout pronghorn range. Up until the last part of August, we had not documented significant rain, however this changed with some isolated strip rains across various parts of the range. For example, one area north of Uken tank recorded rain, but washes near Uken did not run so it did not collect any water. There was light rain near Knucklehead Tank northeast of the pen, but it did not collect any water either. There was rain at Devils Hills and it filled the tank and greened up surrounding vegetation; but only light rain further east at Point of the Pintas. One of the 3 Sierra Pinta waters caught rain, and it was green in the vicinity, but there didn’t appear to have been significant rain at the other two waters.

A 2-year old doe was found dead on August 16, in Child’s Valley. Subsequent investigation suggested she was killed by a mountain lion. Another 2-year old doe was found dead on August 29 at Morgart drinker. Cause of death is unknown but may be disease related. Recent camera trap photos showed her to be in excellent body condition before her death.

**Wild Pronghorn Kofa Herd:** We have not done telemetry flights in this area recently. Numerous mostly unmarked pronghorn (25+) are still using the area near alfalfa pivots east of YPG. Numerous pronghorn are also using the water and alfalfa south of Kofa pen, as well as the water at Dog Leg. Several pronghorn are still west of King Valley near Highway 95. One of the wandering does that moved west to the Colorado River after her release, then returned to the Eagle Tail Mountains, was found dead in the Clanton Hills on August 23. Subsequent investigation did not reveal a cause of death although there was no sign of predation. Her body condition was excellent prior to her death.
**Wild Pronghorn Saucedas Herd:**
We have not done telemetry flights in this herd this month. This area did get good rain in late August, which filled our new Hat Mountain drinker and improved forage conditions across most of the range east of Highway 85.

**Water Projects:**
We have been busy hauling water to various waters throughout pronghorn range. We had to do a 0.6 mile fire hose lay to pump 5,000 gallons of water to Knucklehead Tank because two small rain events in the area did not run any water into the collection dams.

**Forage Enhancements:**
Habitat conditions were poor throughout pronghorn range for most of August. Numerous pronghorn including several fawns have been documented using our forage/water sites including Devils Hills, Point of the Pintas, Knucklehead, Uken, Morgart and Charlie Bell sites in the original range. Numerous pronghorn are using Hat Mountain and Ku Wud waters in the Saucedas subunit. South release, Dog Leg, SWTR, and 542 near the YPG release pen have also been receiving heavy use in the Kofa/YPG subunit.

**Other Projects:**
We have the signed EA for a release of Sonoran pronghorn on BLM land within the Sonoran Desert National Monument in Vekol Valley. Plans are to release up to 20 animals there this December. The next step is to construct a holding pen to acclimate pronghorn to this new area prior to a release into the wild. Due to coronavirus issues, we have postponed returning pronghorn to Mexico this year. We are planning to do the Arizona range-wide survey in late November. We are also planning the annual release of animals from the Cabeza and Kofa pens for December. If we caught all the target animals, there would be about 60 pronghorn to be released from both pens.

*Written September 8, 2020*
**Captive Breeding: Cabeza Pen**

The pronghorn are being observed on a regular basis during scoping and appear to be doing well. We believe all the females have given birth and there are 15 fawns in north herd and 18 in south herd. There was 0.11 inches of rain in early April, but none since and the pen is drying out rapidly. Alfalfa consumption has been steadily increasing and the biologists have started to irrigate the native forage in the pen. The pen biologists have been busy monitoring recruitment in the pen, monitoring released/wild animals in the Childs Valley, and irrigating and maintaining the habitat enhancements for wild pronghorn in Child’s Valley and in the Saucedasubunit.

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<td>Fawns (b 2019, 10F, 6M)</td>
<td>15 Fawns (b 2019, 15M, 12F)</td>
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<td>Total</td>
<td>43 Total</td>
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**Kofa Pen**

The Kofa pronghorn are doing well. All the females have given birth, and there are 16 fawns in the pen. In early April, 2 young fawns were found dead in the pen, but cause of death could not be determined. Photos from automatic cameras in the pen revealed there had been bobcat in the pen but it was several days prior to the fawn mortalities, and is not believed to be the cause of death. The biologist attempted to trap the bobcat but it was never observed or trapped after the photos. The biologists have competed the barb wire extension on top of the perimeter fence and we have not had any bobcats in the pen since. There has been no measurable rain at the pen and it is also drying out and alfalfa consumption is increasing. The biologists are busy trying to figure out how to make the Kofa solar well work more consistently, monitoring recruitment in the pen, and monitoring and maintaining several habitat enhancements for wild pronghorn in King Valley.
Due to ongoing coronavirus related restrictions, we have been unable to do any aerial telemetry since early March. Consequently we have no information on the VHF collared animals or fawn recruitment in the wild. We also have been unable to assess range wide habitat conditions, but there has been no known appreciable rain in the last 2 months, and the desert is drying out.

**Wild Pronghorn Cabeza/ORPI/BMGR Herd:** Several pronghorn released this winter on ORPI and Cabeza have returned to the vicinity of the pen. Other ORPI GPS collared released animals have remained in the Valley of the Ajo and adjacent BLM and USFWS lands.

**Wild Pronghorn Kofa Herd:** One GPS collared doe released on YPG East Arm this winter moved all the way across northern Kofa refuge, crossed Highway 95, remained on YPG for several weeks and has since returned to north of Kofa. The other GPS animals are either in the Palomas Plains area, or on YPG south of Kofa. One GPS buck was found dead just west of some agricultural land north of Hyder under suspicious circumstances. This is the same area another buck died in January under suspicious circumstances. An AGFD law enforcement investigation is ongoing. A small group of VHF and uncollared animals have been observed off and on just east of Highway 95 north of Stone Cabin.

**Wild Pronghorn Sauceda Herd:** One GPS collared buck crossed Highway 85 and has been north of the Crater Mountains, venturing near Interstate 8 east of Dateland and west toward the Mohawk Mountains. The other GPS animals seem to be integrating with wild animals and are north and south of the Sauceda Mountains.

**Water Projects:** We have been unable to build the new Ku:Wud water in the Sauceda subunit due to coronavirus related restriction against gatherings of more than 10 people. Numerous pronghorn are now using the temporary Ku:Wud water and therefore we will not build it until fall/winter as we don’t want to disturb them or prevent access to water while we are constructing the new water. Personnel are maintaining the temporary water there and at Hat Mountain until the pronghorn are established using the new Hat Mountain water.

**Forage Enhancements:** Habitat conditions in the vicinity of the forage enhancements are drying out rapidly and we have begun irrigation and/or providing alfalfa at these sites. Numerous pronghorn including several fawns have been documented using Devils Hills, Point of the Pintas, Knucklehead, Uken, Morgart and Charlie Bell sites.

**Other Projects:** Plan are continuing for an eventual release of Sonoran pronghorn on BLM land within the Sonoran Desert National Monument. BLM is working on the necessary NEPA work for this project.

*Written June 8, 2020*
Captive Breeding:
Cabeza Pen

The pronghorn are being observed on a regular basis during scoping and appear to be doing well. The first fawns were observed in the north pen on March 26; so far there are 4 fawns in north herd and 2 in south herd.

The pen has received considerable rain in February and March and is very green. Rain on February 10 was 0.62 inches and another 0.48 inches fell February 22-23. Between March 2 and March 18, 2.6 inches of rain fell at Cabeza with 1.7 inches in one big storm March 11-13. The pen technicians have been busy repairing damage from the rains, and working on repairs to the aging fence at the pen. They have also been tracking several recently released pronghorn who have been in the vicinity of the pen, and monitoring water levels at several habitat enhancements in the Child’s Valley and the Sauceda herd unit. A Corid treatment for the prevention of coccidiosis was done.

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<td>Total Pen</td>
<td>76</td>
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The Kofa pronghorn are doing well. The first fawns were observed on March 28, and we currently have 6 fawns. The Kofa pen also received good rainfall in February and March. On February 12, the pen got 0.65 inches of rain and another 1.08 inches on February 22. Rain fell almost every day between March 3 and March 10, with a total of 3.27 inches!! Needless to say, the pen is very green right now, making fawn observations difficult. A Corid treatment was also done at the Kofa pen.

The Kofa pen technicians have been busy shoring up the pen fence against predators. They are adding outward slanting arms to the tops of the t-posts and will affix 2 rows of barb wire to these arms to prevent bobcats from jumping over the fence. This addition was done at the Cabeza pen last year, and we have not experienced any bobcat incursions since then. There has also been substantial clean-up work at the pen following the numerous rain storms.

### Adult Females: 14
### Yearling Females (b 2019): 6
### Adult Males: 2
### Yearling Males (b 2019): 11
### Fawns (b 2019, 11 M, 6 F): 6
### TOTAL: 39

**Wild Pronghorn Cabeza/ORPI/BMGR Herd:** The most recent telemetry flight was March 15. Most pronghorn were in the same general areas. Recent data from the GPS collared pronghorn recently released on Organ Pipe Cactus NM show they are still in the Valley of the Ajo (2), just north on BLM land (1), and near the captive breeding pen (2). Two (buck and doe) have moved south of Ajo. Of the 4 pronghorn released near the captive breeding pen on Cabeza with GPS collars, three moved north and are using the north and south Tactical Ranges and one buck has wandered extensively north and west and is currently north of the Aguilla Mountains. This buck traveled over a hundred miles so far.

**Wild Pronghorn Kofa Herd:** The nine animals in the YPG East Arm holding pen were released on February 3, 2020. All nine have GPS collars. The most recent data shows 5 of them either north or east of the holding pen. These have joined with and are in the vicinity of 5 pronghorn that were released last year. Two originally moved south onto the Kofa Firing Range portion of YPG but these have moved north and are in the King Valley on Kofa now; one is about 5 miles due south of the Kofa captive breeding pen. The other two moved northeast about 20 miles and are currently in the vicinity of the Eagle Tail Mountains.

Of the pronghorn with GPS collars released last year, two are still on the Kofa Firing Range, one is north in King Valley, and 2 are east of the holding pen. The buck that had moved east to Tonopah has returned and is in the vicinity of 2 newly released pronghorn east of the holding pen.

Several pronghorn are in the small herd that is utilizing the area near Highway 95; they have been observed on both sides of the highway.
**Wild Pronghorn Sauceda Herd:** No telemetry flights have occurred but most of the recently released pronghorn have GPS collars. Recent data show these animals are near the holding pen (2), south of the holding pen (2), north of the holding pen just south of the Sauceda Mountains (1) and north of the Sauceda Mountains (4). There are 4 additional pronghorn with GPS collars from previous releases, although none of these collars send data reliably. The most recent data for them show 3 north of the Sauceda Mountains in the vicinity of the newer releases, and 1 south of the holding pen.

**Water Projects:** With assistance from the Yuma Valley Rod and Gun Club, we completed the new Hat Mountain water in the Sauceda subunit March 5 – 7. This is one of our largest waters and will hold 19,320 gallons. Rain on March 11-12 filled it about 1/3 full. We’ve also completed all the necessary paperwork for the new Ku:Wud (Tohono O’odham for pronghorn) water in the Sauceda unit and hope to build it this spring.

**Forage Enhancements:** Habitat conditions are excellent across the range and irrigation of native forage is not currently necessary.

**Other Projects:** We have begun preliminary scoping and evaluating habitat for an eventual release of Sonoran pronghorn on BLM land within the Sonoran Desert National Monument. Potential locations for a holding pen and waters have been determined and work is progressing on this project.

The range-wide survey in Sonora Mexico took place February 18 – 22, 2020. In the Quitovac subunit, 393 pronghorn were observed in 121 groups on transects. The largest group was 14 animals. Numerous single pronghorn were observed. In the Pinacate subunit, 54 pronghorn in 23 groups were observed on transects during the survey. The largest group was 6 animals and numerous single pronghorn were observed here as well.

The number observed in the Quitovac subunit was lower than the previous survey in November 2017 (393 versus 559), although the estimate was somewhat higher (736 versus 638). The number observed in the Pinacate subunit was just slightly higher than in 2017 (54 versus 52) but the estimate was substantially higher (126 versus 72). We believe these inconsistencies are the result of the timing of the survey this year. The survey took place in February when pronghorn group sizes are much smaller than in November and December. In late February, pronghorn females separate themselves from the herd for fawning season. Bucks are often typically by themselves as well or in small groups. This was documented in our observations. This year in the Quitovac subunit, 89 pronghorn were observed in groups of 1 or 2 animals compared to only 19 in November 2017.
Captive Breeding:  
Cabeza Pen

The pronghorn are being observed on a regular basis during scoping and appear to be doing well. The annual capture/release took place December 4 – 5, 2019. All pronghorn were vaccinated, had blood drawn for disease and genetic testing and were marked. All pronghorn being released were fitted with either GPS or VHF collars. Breeding females being released back into the pen were fitted with VHF collars if needed. Fawns being returned to the pen got color coded ear tags. There were no serious injuries or mortalities during the capture or handling operation. Thanks to everyone who assisted.

In the south herd, 53 animals were processed on December 4. Ten pronghorn (4M, 6F) were transported via trailer to the holding pen on Organ Pipe Cactus NM. An additional 10 (4M, 6F) were transported and released in the holding pen on the Sauceda Unit, on the BMGR east of Highway 85. Two bucks were moved from the south pen to north for breeding. The remaining animals were returned to the pen as they were breeding females or young of the year. The north herd was processed on December 5; 30 pronghorn were processed there. Six pronghorn (3M, 3F) were transported to the Sauceda holding pen, and 5 (2M, 3F) were moved by stretcher to the holding pen on Cabeza Prieta NWR. Two bucks were moved to the south pen for breeding purposes.

On December 7, a 4-year old buck was found dead in the north half of the pen; he had not been caught in the bomas or handled and had no exterior injuries on him. Cause of death is currently unknown; internal organ samples were taken for laboratory testing.

<table>
<thead>
<tr>
<th>NORTH HALF</th>
<th>SOUTH HALF</th>
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</thead>
<tbody>
<tr>
<td>Adult Females</td>
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<tr>
<td>Yearling Females (b 2018)</td>
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<tr>
<td>Adult Males</td>
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<tr>
<td>Yearling Males (b 2018)</td>
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<tr>
<td>Fawns (b 2019, 10F, 6M)</td>
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</tr>
<tr>
<td>Total</td>
<td>30</td>
</tr>
<tr>
<td>Total Pen</td>
<td>70</td>
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</table>
The Kofa pronghorn are doing well. The Kofa capture and release took place January 14, 2020. Twenty-eight animals were processed. All animals were vaccinated and marked. Nine pronghorn (1M, 8F) were transported by trailer to the holding pen on the East Arm of YPG.

The remaining pronghorn were returned to the pen for breeding or because they were too young to be released. During the trapping and processing, it was discovered there was an additional yearling doe in the pen that had been miscounted for several months.

Again, many thanks to everyone who assisted on this project.

**Wild Pronghorn Cabeza/ORPI/BMGR Herd:** The five animals in the Cabeza holding pen were released to the wild on December 8 (they had not been tranquilized). Initially they remained around the pen, but then 2 females and 2 males moved north onto STAC. One buck then moved west about 14 miles into the San Cristobel Valley. The other buck returned to the area near the pen. One doe stayed around the pen and has been seen with other wild does in the area. The 10 pronghorn in the ORPI holding pen were released on December 20, 2019. They have mainly remained in the Valley of the Ajo except for one buck who has returned to the pen area. Due to all the captures and the unavailability of aircraft, no telemetry flights have occurred in this area.
**Wild Pronghorn Kofa Herd:** The nine animals in the YPG East Arm pen were released on February 3, 2020. They initially moved west as a group but have split up into several smaller groups and have wandered largely to the west and north of the holding pen. No telemetry flights have occurred on the Kofa area.

A buck with a GPS collar was on mortality on January 24, 2020. This buck had been hanging around the farms and citrus field north of Hyder with another buck. His collar initially went on mortality on January 5 at one location. It then was on mortality again on January 6, but at a location 1.1 miles south of the initial site, in a farm field. Nothing except the collar was found at that area, and nothing other than a few bits of hair and some foam from the inside of his collar was found at the first area. This appears suspicious to us, and we suspect he may have been killed, and then his collar taken and tossed in the field. Recent rains wiped out any sign in the immediate vicinity of the collar and in the area the GPS data suggested it died.

**Wild Pronghorn Sauceda Herd:** One buck died in the holding pen on December 16. He was seen by himself one day, and found dead the next, although he did not exhibit any other abnormalities. Capture myopathy is suspected to be the cause. Internal organs were altered in a manner consistent with capture myopathy. The remaining 15 pronghorn were released from the holding pen on December 18, 2019. Three females died December 24 – 28, 2019. There were signs of coyote scavenging at two of them, but complications from the capture was assumed to be the causes of death. The remaining pronghorn have joined with the existing pronghorn in the Sauceda herd and have been in two groups in the vicinity of the waters and near the highway.

Two other mortalities were detected on the December 28 telemetry flight in this area. One five year old doe and one six year old doe, both released in 2015, were on mortality. It is unknown how long they had been dead (last known alive in September) and there was no sign at either location due to the amount of time that had passed.

**Water Projects:** We have finally made good progress on the paperwork for a new large water to replace one of the temporary waters on the Sauceda unit. We hope to complete that project in March. We are trying to get the paperwork done for a second replacement water on the Sauceda unit, to take place in April.

**Forage Enhancements:** We are rebuilding the infrastructure associated with the Granite Forage plot. Large storage tanks have been added to the system that will be filled by a solar powered pump. An electrician has been working on completing the automated on/off mechanism. Habitat conditions are excellent across the range and irrigation of native forage is not currently necessary.

**Other Projects:** The range-wide survey in Sonora Mexico that was postponed due to weather in November will take place February 18 – 22, 2020.

*Written February 10, 2020*


**Sonoran Pronghorn Update**

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**Welcome to new members**

- Marsha D. Halcrow, Waddell  
- Patrick T. Frawley, Chandler  
- Ron & Sharon Eichelberger, Alpine  
- Cindy & Jim Dickert, Mesa  
- Mary DeJong, Flagstaff  
- Ken & Kathy Cook, Casa Grande  
- Michael Christopher, Show Low  
- Lester R. Gaskill, Show Low  
- Roger & Ilene Hailey, Flagstaff  
- Roger Joos, Glendale  
- Randy Cherington, Scottsdale  
- Ken and Donna Pitzlin, Sierra Vista  
- Dee Phan, Glendale  
- Amy B. Ostwinkle, Chandler  
- Matt McNeil, Chandler  
- Matt McNeil, Chandler  
- Tice Supplee, Phoenix  
- Robert Neal Bushong, Yuma  
- Art & Rosanne Porter  
- Dan Priest, Phoenix  
- Bob & Judy Prosser, Winslow  
- Joelle Buffa, Sierra Vista  
- William C. Cordasco, Flagstaff  
- Linda Dightmon, Peoria  
- Gary Evenson, Tucson  
- Roger Kesterson, Casa Grande  
- David A. T. Wadsworth, Mesa  
- Rob Sopher, Tuscon  
- Ken Mehen, Flagstaff  
- Charles Wilmer, Phoenix  
- Thomas & Jamie Watkins, Phoenix  
- Christopher & Jolene Vallejos, Flagstaff  
- Thomas R. McDaniel, Phoenix  
- Susan Morse, Jericho VT  
- Dan Priest, Phoenix  
- William & Jan Skibbe, Tucson  
- C. Edward Perkins, Happy Jack  
- Dan Priest, Phoenix  
- William & Jan Skibbe, Tucson  
- Charles Wilmer, Phoenix  
- Bill & Kerrie Jacoby, Chandler  
- Gary R. Johnson, Phoenix  
- Roger Kesterson, Casa Grande  
- Nancy Lewis, Phoenix  
- Joe Del Re, Chandler  
- Robert Neal Bushong, Yuma  
- Art Boswell, Tucson  
- William Cullins, Chandler  
- Richard Miller, Flagstaff  
- William Collins, Chandler  
- Bob & Judy Prosser, Winslow  
- Jay Starks, Phoenix  
- David S. Justice, Prescott  
- Steven McNamara, Chino Valley  
- Keith Newlon, Sierra Vista  
- Richard A. Ockenfels, Mayer  
- C. Edward Perkins, Happy Jack  
- Dan Priest, Phoenix  
- Darrel E. Wood, Marana  

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**Sustaining Members**

- Joelle Buffa, Sierra Vista  
- William C. Cordasco, Flagstaff  
- Linda Dightmon, Peoria  
- Gary Evenson, Tucson  
- Roger Kesterson, Casa Grande  
- Richard A. Ockenfels, Mayer  
- C. Edward Perkins, Happy Jack  
- Dan Priest, Phoenix  
- Randy Cherington, Scottsdale  
- Bob & Judy Prosser, Winslow  
- Art Pearce, Phoenix  
- Jim Mehen, Flagstaff  
- Larry D. Adams, Bullhead City  
- James K. McCasland,  
- Nina Gammons, Payette, ID  
- Jerry Weiers, Phoenix  
- Harry Carlson, Phoenix  
- David Brown, Phoenix  
- Art Boswell, Tucson  
- Charlie Kelly, Scottsdale  
- Chrissy Weiers, Phoenix  
- Al Sue, Scottsdale  
- Mary Keeler, Happy Jack  
- Bill Keeler, Happy Jack  
- James Stewart, Phoenix  
- Terry Schupp, Tempe  
- Dale Hislop, Calgary Canada  
- Rick Rosing, Tucson  
- George Welsh, Kingman  
- Matthew Massey, Gilbert  
- Don Parks, Peoria  
- Bill & Kerrie Jacoby, Chandler  
- Adam Geottl, Cottonwood  
- Shane Stewart, Gilbert  
- Don Davidson, Mesa  
- Terry Petko, Mesa  
- Gary M. Johnson, Phoenix  
- Richard Guenzel, Laramie WY  
- Randy Cherington, Scottsdale  

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**Life Members**

- Art Pearce, Phoenix  
- Jim Mehen, Flagstaff  
- Larry D. Adams, Bullhead City  
- James K. McCasland,  
- Nina Gammons, Payette, ID  
- Jerry Weiers, Phoenix  
- Harry Carlson, Phoenix  
- David Brown, Phoenix  
- Art Boswell, Tucson  
- Charlie Kelly, Scottsdale  
- Chrissy Weiers, Phoenix  
- Al Sue, Scottsdale  
- Mary Keeler, Happy Jack  
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- Don Davidson, Mesa  
- Terry Petko, Mesa  
- Gary M. Johnson, Phoenix  
- Richard Guenzel, Laramie WY  
- Randy Cherington, Scottsdale  

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**Family Members**

- Jim & Rita Ammons, Yuma  
- Bruce & Vickie Belman, Flagstaff  
- Dino & Pam Cerchie, Mesa  
- Michael Christopher, Show Low  
- Ken & Kathy Cook, Casa Grande  
- Mary DeJong, Flagstaff  
- Cindy & Jim Dickert, Mesa  
- Ron & Sharon Eichelberger, Alpine  
- Patrick T. Frawley, Chandler  
- Marsha D. Halcrow, Waddell  
- John Heim, Tucson  
- Jay Leadabrand, Cottonwood  
- Quentin Lewton, Sonora  
- Steve Longbons, Litchfield Park  
- Thomas R. McDaniel, Phoenix  
- Kenneth Morris, Cave Creek  
- Julia K. Nixon, Williams  
- Amy B. Ostwinkle, Chandler  
- Dee Phan, Glendale  
- Ken and Donna Pitzlin, Sierra Vista  
- Pete & Ann Rathwell, Phoenix  
- Daniel G. Robinett, Elgin  
- William & Jan Skibbe, Tucson  
- Barry R. Sopher, Tucson  
- Brian K. Taylor, Munds Park  
- Christopher & Jolene Vallejos, Flagstaff  
- Thomas & Jamie Watkins, Phoenix  
- Charles Wilmer, Phoenix  

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**Welcome to new members**

- Vince Bloom, Galt, California  
- Tammy Hufhachor, Mesa  
- Roger Kesterson, Casa Grande  
- Steve Longbons, Litchfield Park  
- Jeffrey Potter, Phoenix  
- Dan Priest, Phoenix  
- Deana Watkins, Phoenix  

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Thank You!

Keeping them Common
Not a member? JOIN TODAY!

Join (or renew) now and help the Arizona Antelope Foundation in its efforts to fund and provide the manpower necessary to finance pronghorn research, enhance and improve pronghorn habitat, encourage and assist in pronghorn transplants to historic habitat, and replenish existing herds. Your commitment will not only ensure that you will continue to be able to enjoy one of Arizona’s most magnificent animals, it will also ensure that your children and your children’s children will have the opportunity to be able to enjoy pronghorn. Contributions to the Foundation are tax deductible, as the Foundation is a 501(c)(3) organization.

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