

Trilateral Committee Meeting
May 16-19, 2016 – Ottawa, Ontario, Canada

Sonoran Pronghorn Recovery Update




Binational Cooperators

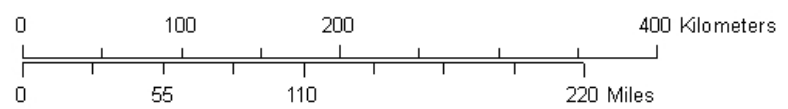
- Arizona Game and Fish Department
- FWS - Cabeza Prieta National Wildlife Refuge
- NPS - Organ Pipe Cactus National Monument
- DOD - Barry M. Goldwater Range / Yuma Proving Grounds
- Pinacate Biosphere Reserve (CONANP)
- Comisión de Ecología y Desarrollo Sustentable de Sonora (CEDES)
- Dirección General de Vida Silvestre (DGVS)
- Border Patrol, BLM, U.S. Air Force, U.S. Marine Corps, Phoenix Zoological Park, Los Angeles Zoological Park.

Historical and Current Range of Sonoran Pronghorn

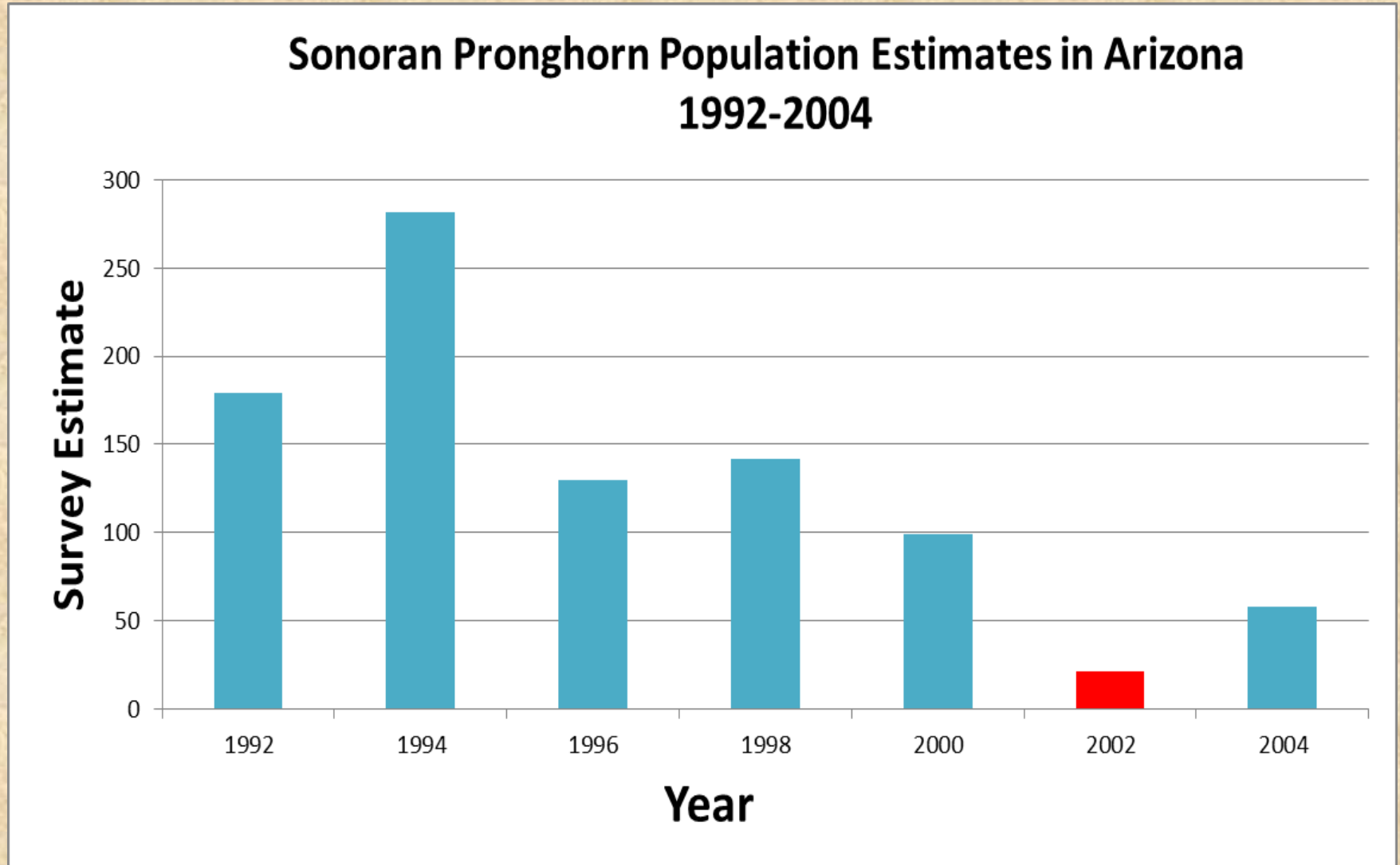
Historic and Current Sonoran Pronghorn Range

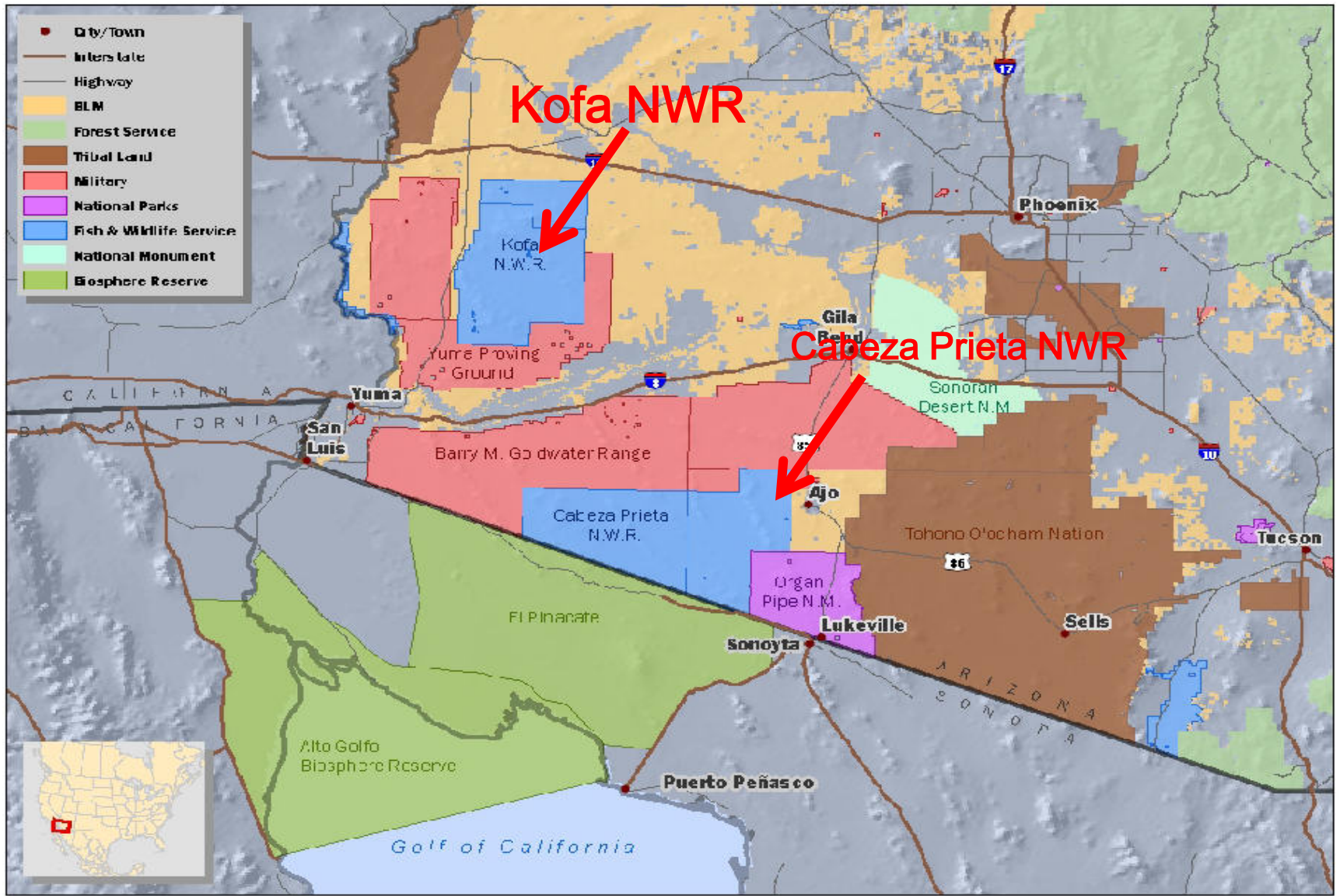


-  Historic Range
-  Current US Range
-  Current Mexico Range



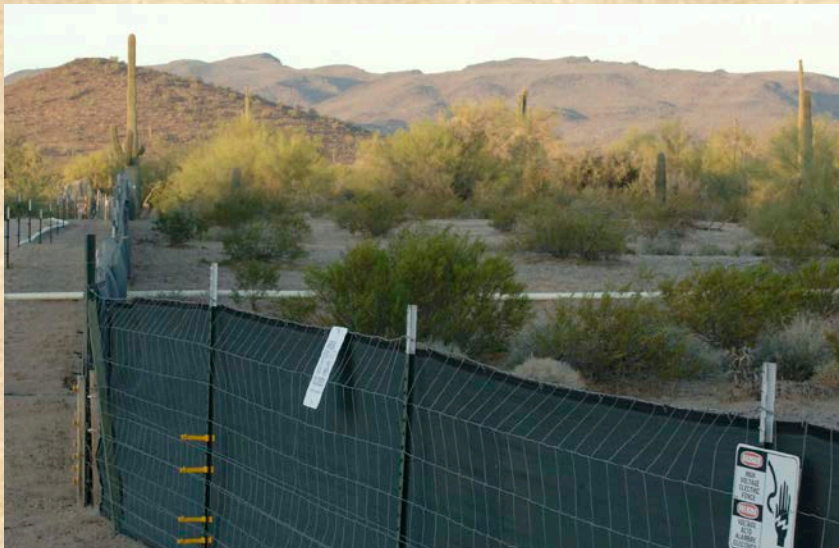
Drastic declines of Sonoran Pronghorn in Arizona 1994-2002





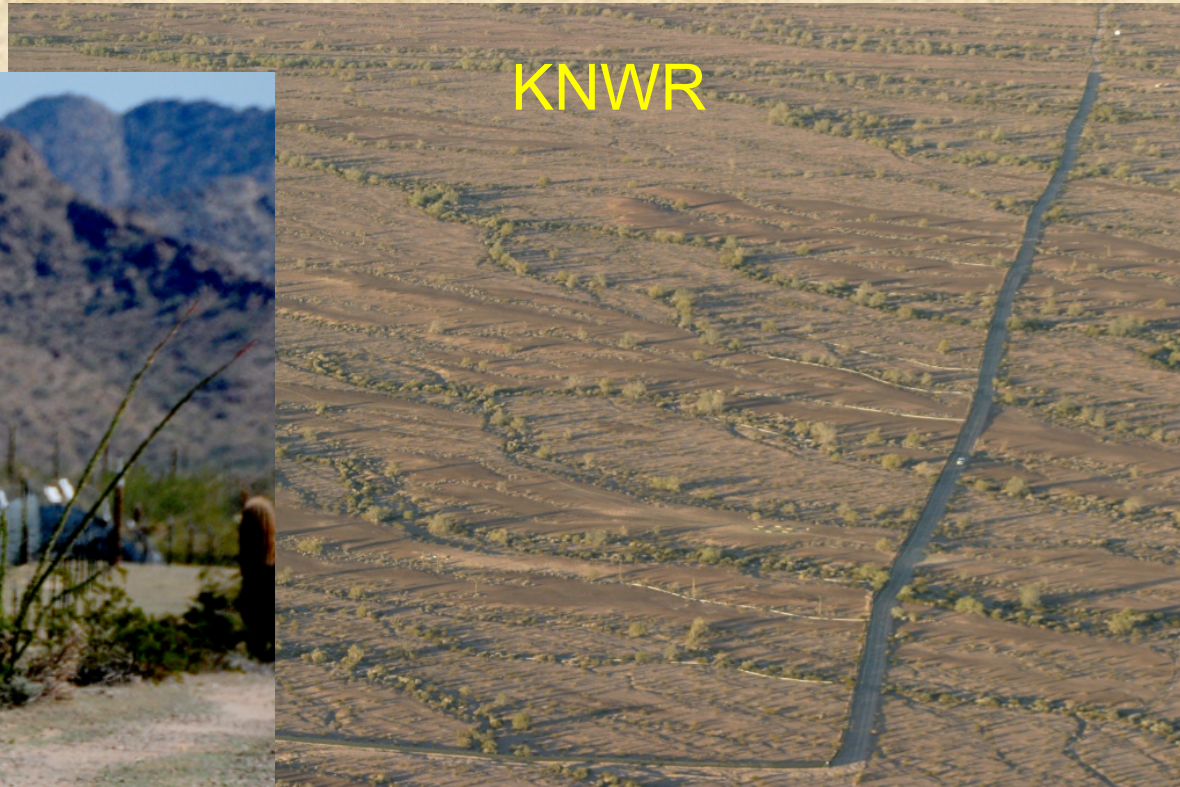
Captive Breeding Program - CPNWR

- In 2004, a semi-captive breeding program was started at CPNWR (1 sq mile / two halves) with some animals from Mexico.
- 6ft tall livestock fence
- 4ft strip of shade (visual barrier)
- Double electrified wire fence



Captive Breeding Program - KNWR

- In 2011, a second breeding pen was established at KNWR (half-square mile)



Captive Breeding Activities

- 1) In the pen – BOMAS separation of the yearlings born last year in one section, are captured, ear tagged and moved into a different section to decrease the harassment to pregnant females and young fawns born this year



- 2) Water projects

- 3) Forage enhancements



Population monitoring within and outside pens





Translocations from the pens to other areas in southwestern Arizona



Sonoran Pronghorn Released from Captive Breeding Pens in Arizona

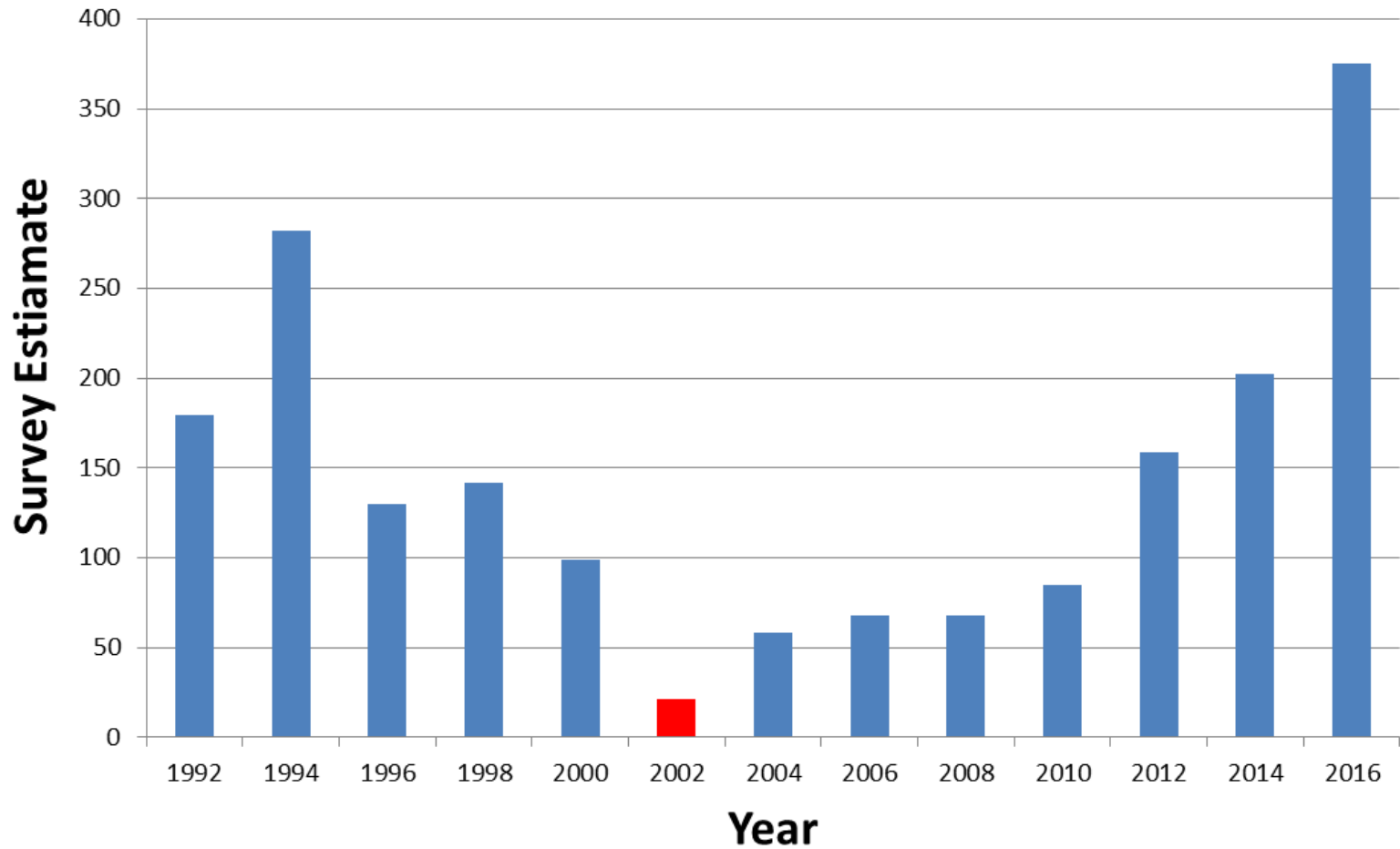
Year	Total Released	Total Survived
2006/07	4	4
2007/08	5	2
2008/09	12	7
2009/10	23	10
2010/11	18	11
2011/12	11	9
2012/13	18	13
2013/14	37	35
2014/15	32	32
2015/16	49	47
TOTAL	209	170

Successful Captive Breeding Program

- As of March of 2016 there are 75 pronghorns in the pens at CPNWR and 40 in the pen at Kofa NWR. Total = 115
- Approximately 375 animals in the wild (**Grand Total in AZ = 490** from 21 in 2002).



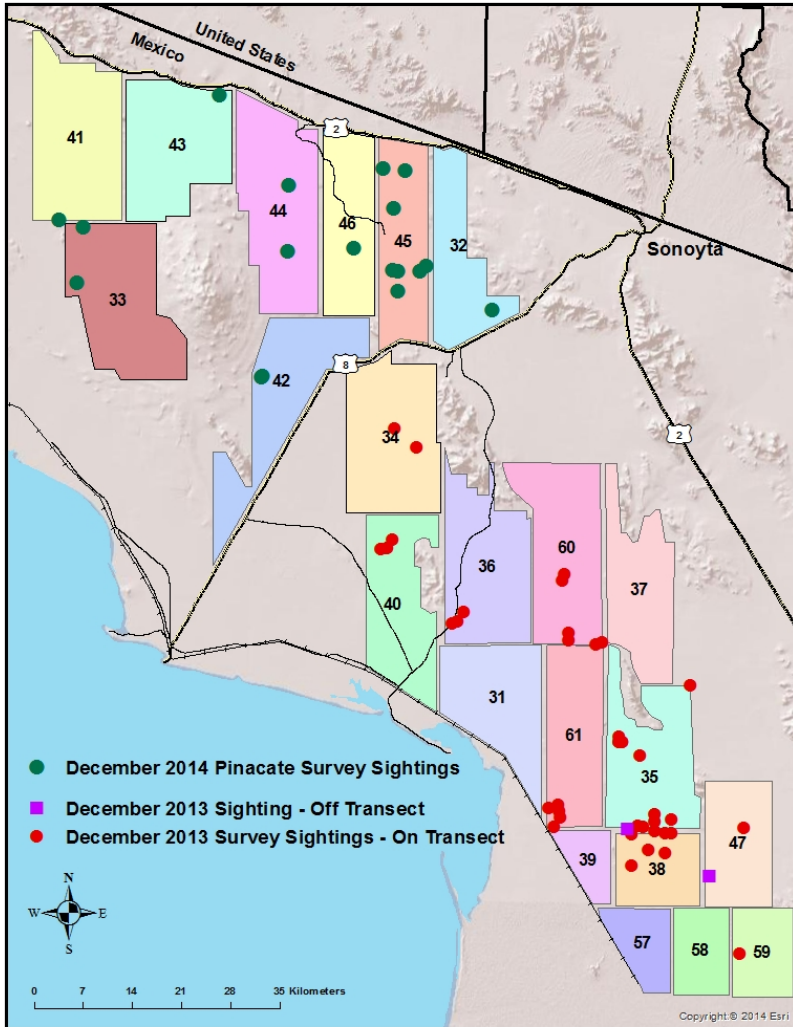
Sonoran Pronghorn Population Estimates in Arizona 1992-2016



Aerial Surveys in Sonora (2015)



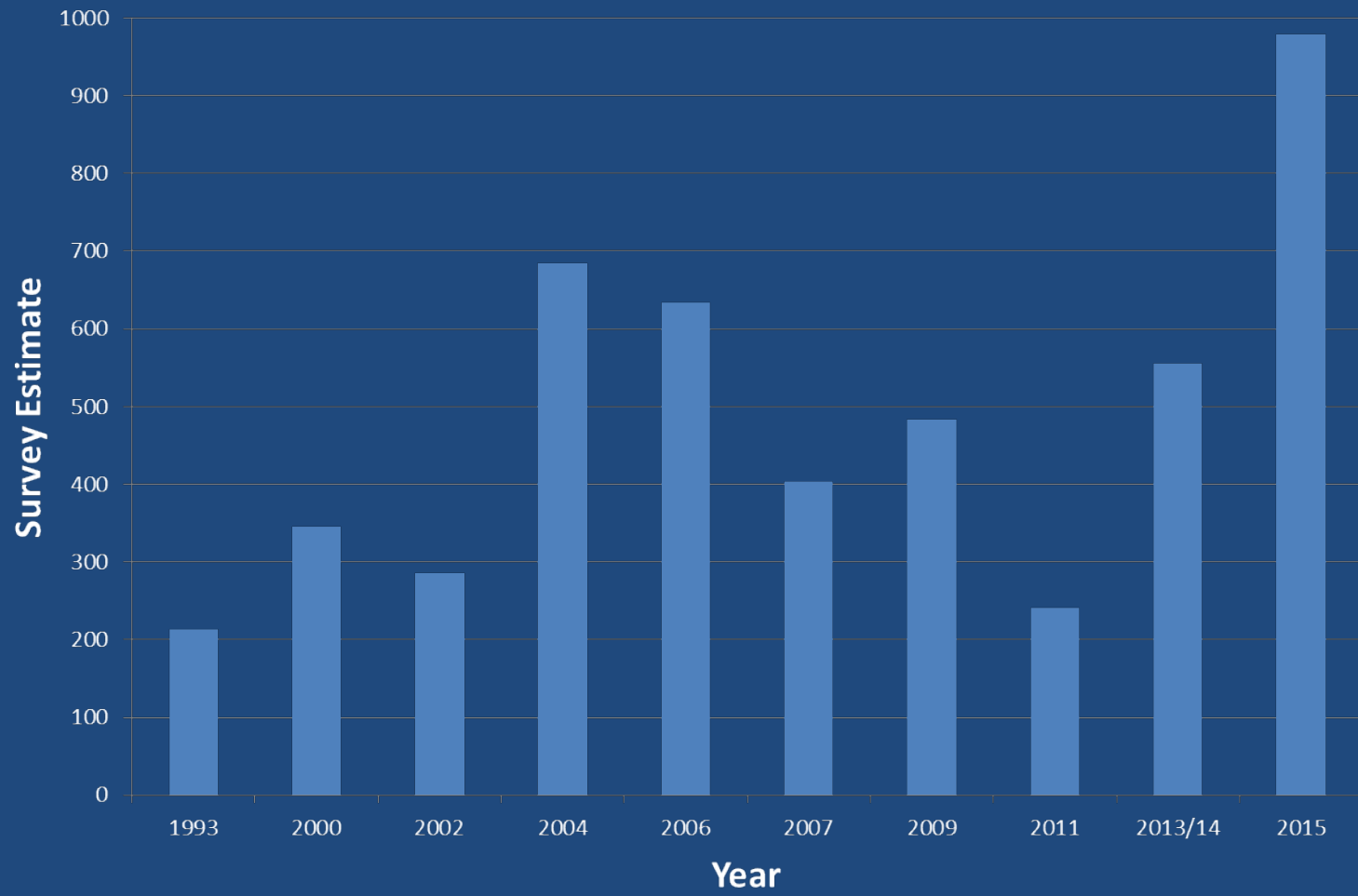
- The range-wide survey in Sonora was completed November 18 – 21, 2015
- In Quitovac the population estimate was 862.
- The population estimate in **El Pinacate** was 117.



2015 Sonora Fawn Recruitment Surveys

- AGFD and CEDES personnel conducted fawn recruitment surveys on June 15-17, in the Quitovac area, east of Highway 8. A total of 99 pronghorn were observed in 33 groups.
- In areas classified as having habitat in good condition, 23 fawns were seen with 27 does for an 85.1 fawn/100 to doe ratio. In areas classified as having fair or poor habitat quality, only 5 fawns were seen with 18 does, for a ratio of 27.7 fawns/100 does. **Overall, the fawn to doe ratio was 62.2 fawns per 100 does.**
- A second fawn survey was conducted in Sonora in October of 2015. In the **Quitovac** area the fawn to doe ratio was **75:100**. In the Pinacate area, 14 adult pronghorn were observed but no fawns.

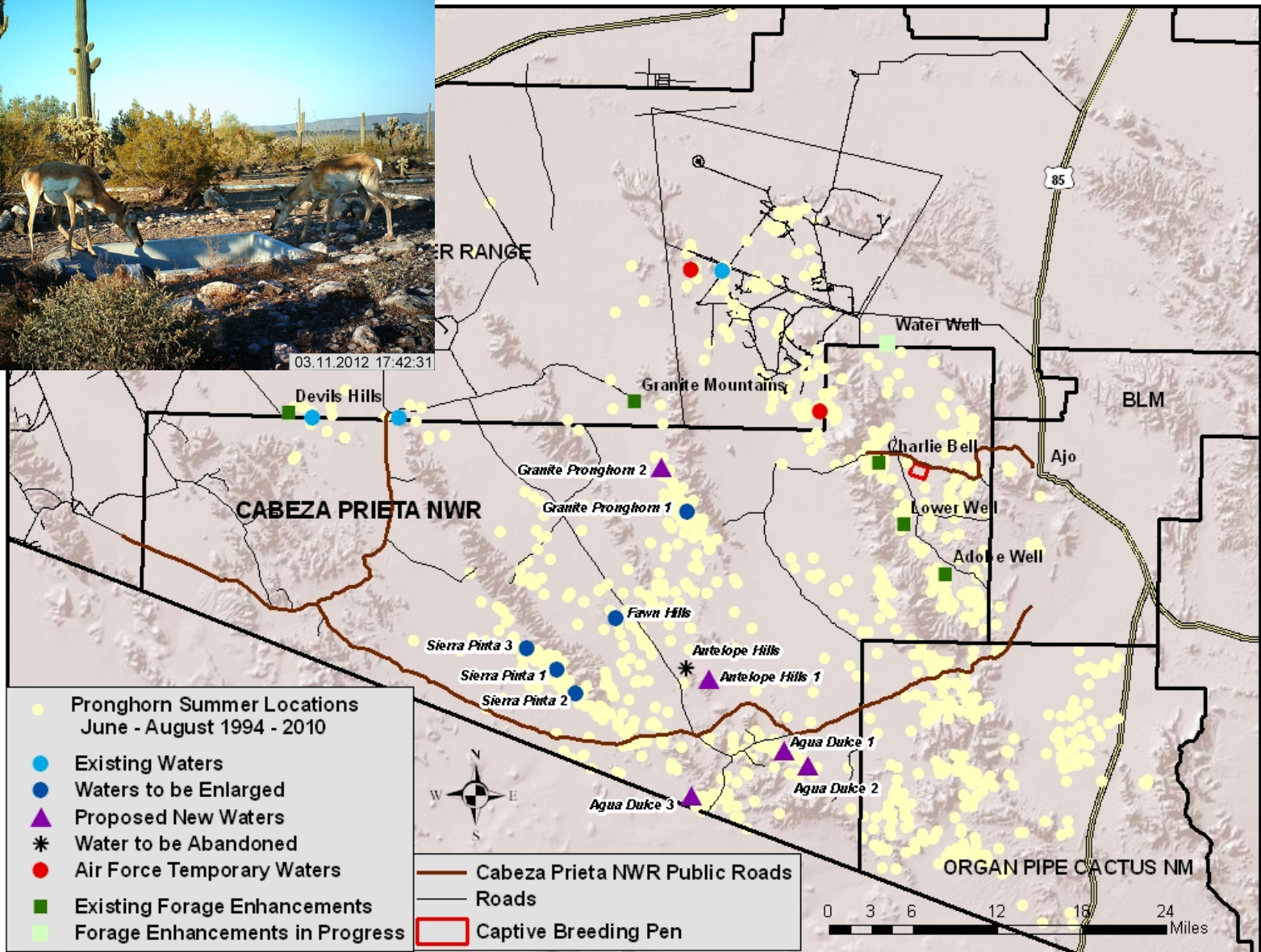
Sonoran Pronghorn Population Estimates in Mexico 1993-2015



Water Projects Arizona and Sonora



Covert



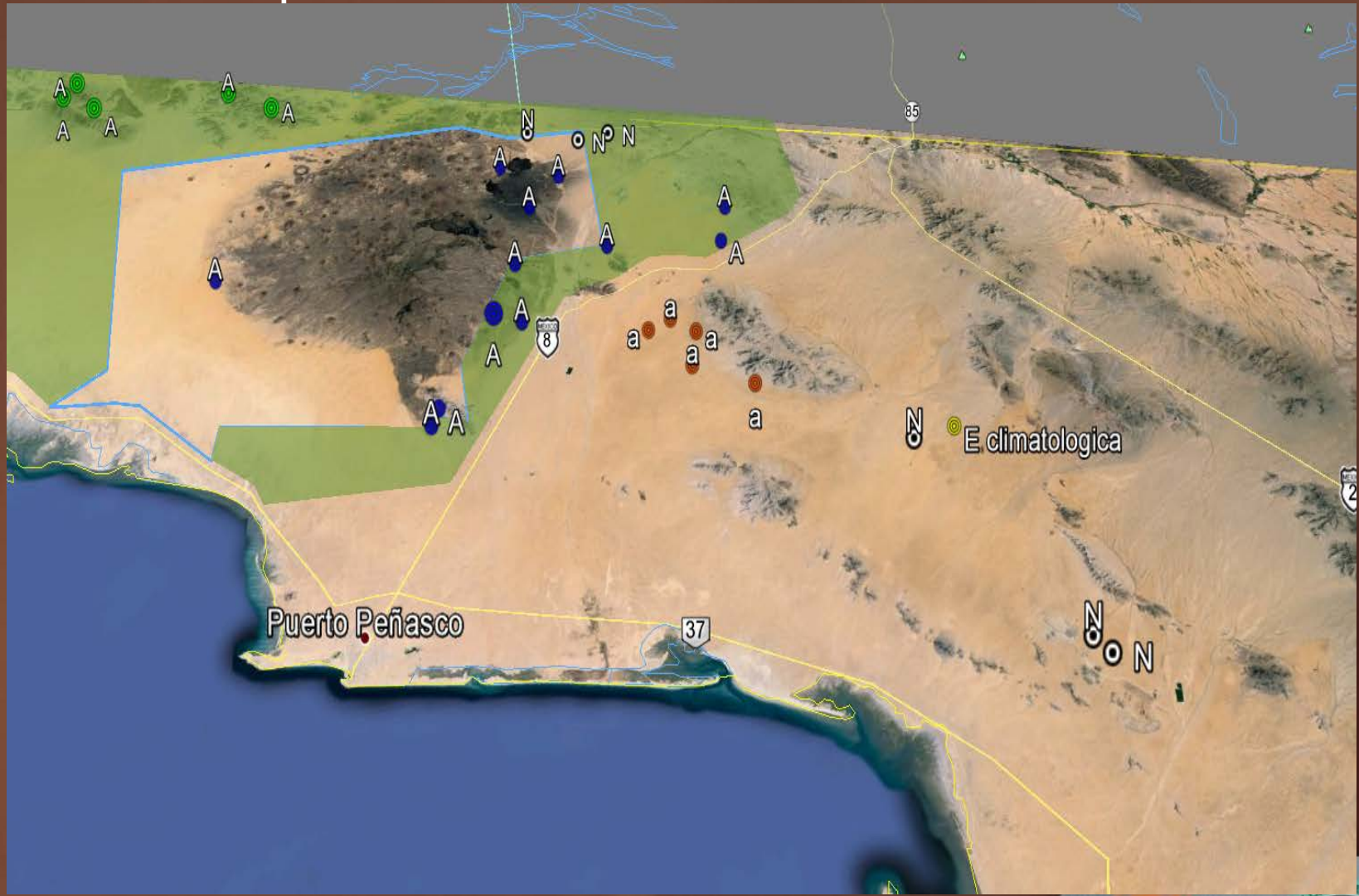
Sonoran Pronghorn Recovery Initiatives in Sonora (El Pinacate Biosphere Reserve)

28 water projects constructed in 2014



Wildlife Crossings & Water Projects

28 Water spots



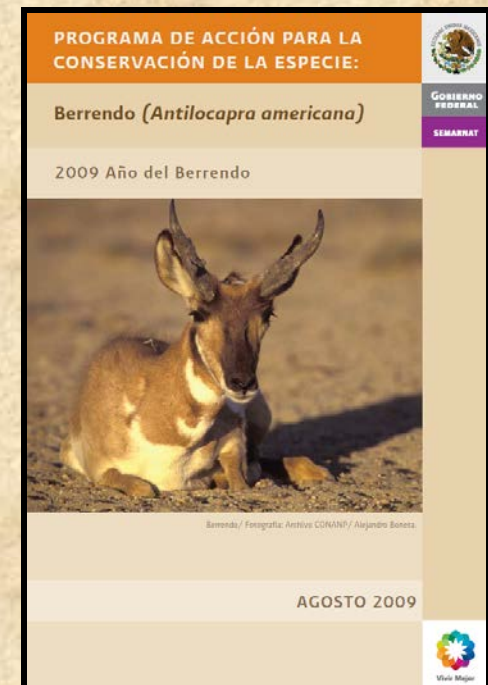
Sonoran Pronghorn Recovery Initiatives in Sonora

14 wildlife crossings were constructed as part of the Highway 2 expansion project



2014 Pronghorn PACE Update Workshop

- AZ – Contributed to update the Mexican Conservation Action Program (PACE) for the Pronghorn, including all the subspecies present in Mexico.
- AZ provided information on captive breeding, forage enhancement plots, supplemental feeding, and water projects.
- Special thanks to Mexico!



Multi-species collaborations

March 19, 2015 Meeting

Pinacate-ORPI-CPNWR-BP-AGFD



Sonoran Pronghorn Recovery Plan update with binational components

The recovery goal is to conserve and protect the Sonoran pronghorn and its habitat so that its long-term survival is secured, and it can be removed from the list of threatened and endangered species (delisted).

Recovery Objectives

- Ensure multiple viable populations of Sonoran pronghorn rangewide (10% probability of extinction over 50 years and a positive growth rate) .
- Ensure that there is adequate quantity, quality, and connectivity of Sonoran pronghorn habitat to support populations.
- Minimize and mitigate the effects of human disturbance on Sonoran pronghorn.
- Identify and address priority monitoring needs.
- Identify and address priority research needs.

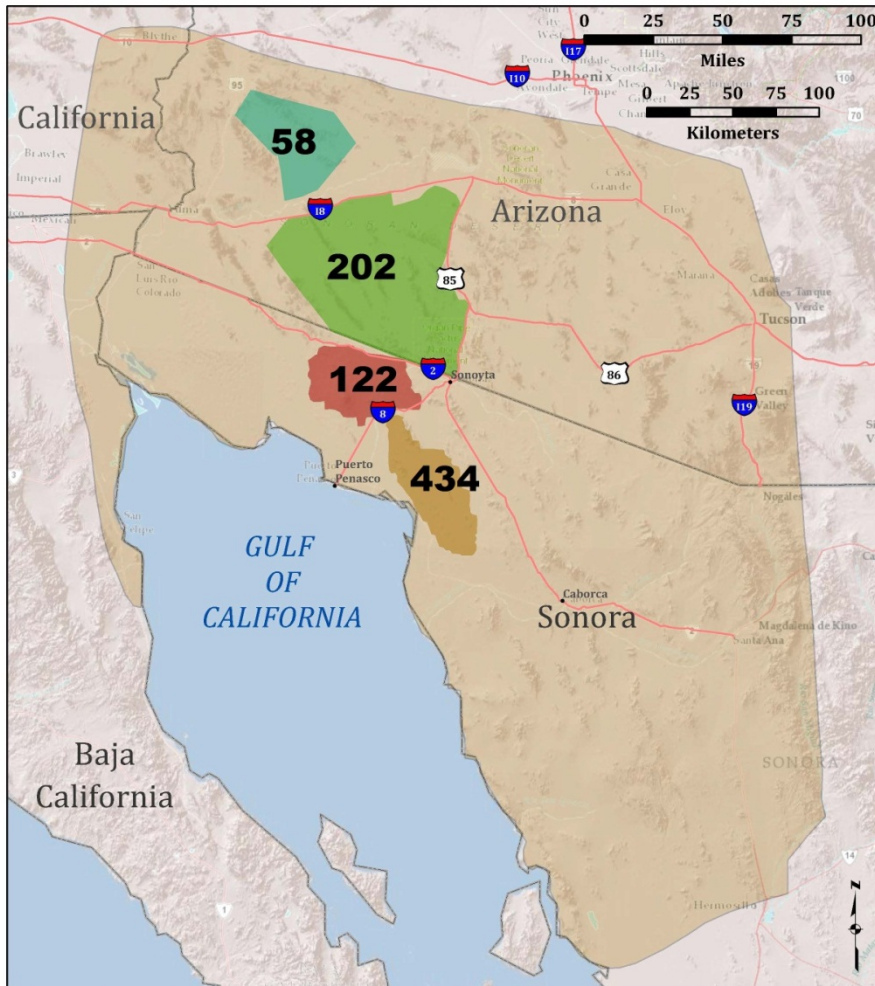
Recovery Objectives






- Maintain existing partnerships and develop new partnerships to support Sonoran pronghorn recovery.
- Secure adequate funding to implement recovery actions for Sonoran pronghorn.
- Practice adaptive management, in which recovery is monitored and recovery tasks are revised by the Service in coordination with the Sonoran Pronghorn Recovery Team as new information becomes available.

Recovery Criteria

- At least three of the four current free-ranging populations are viable for at least five out of seven years.
- A minimum of 90% of current Sonoran pronghorn habitat is retained, contiguous and protected.
- Threats to Sonoran pronghorn habitat quality in three out of four management units are stable or decreasing.
- Human disturbance is alleviated such that a minimum of 90% of Sonoran pronghorn habitat can be occupied by Sonoran pronghorn.
- Genetic diversity has been retained or increased from current levels.
- Laws are in place to ensure that killing of Sonoran pronghorn is prohibited or regulated.

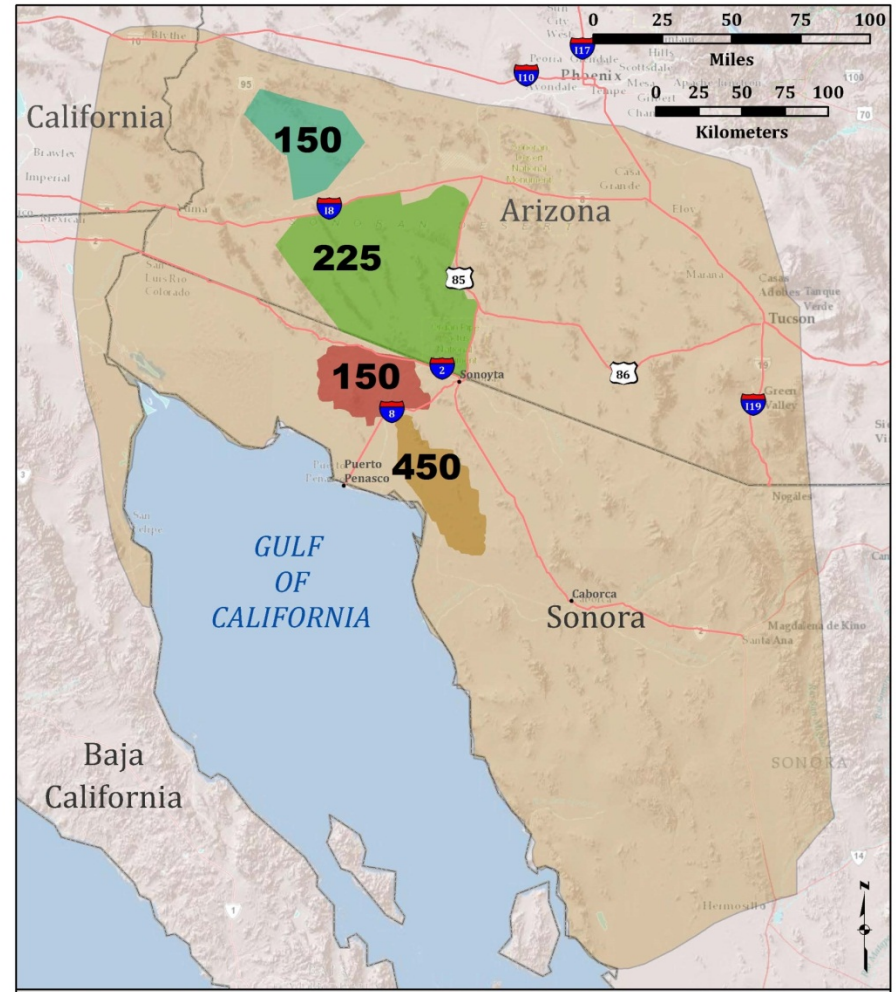
2014 Population Estimates vs. Delisting Criteria








	Current Kofa Range (2014)*		Pinacate Range		Historical Range
	Cabeza Prieta Range		Quitovac Range		

Coordinate System: WGS 1984
 UTM Zone: 12N
 Projection: Transverse Mercator
 Linear Unit: Meter
 Scale: 1:2,500,000
 Basemap: Esri, DeLorme, USGS, NPS
 Produced By: L. Urreiztieta, Harris Environmental Group, Inc. January 2015

**Preliminary range anticipated to expand with increase in population.*



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Requested Specific Outcomes

- 1) Continued support for the range wide surveys and research using GPS collars.
- 2) Continued support to maintain and expand the number of populations in AZ, as well as protect populations in Sonora.
- 3) Approval of necessary permits to conduct aerial surveys and to evaluate genetic diversity within remaining populations (U.S. and Mexico)
- 4) Continue with binational meetings every two years to discuss conservation efforts for pronghorn in Mexico.

Questions?

