San Diego Feral Pig Eradication

http://www.aphis.usda.gov/ws/ca



W Wildlife Services

Removal Locations (2010-June, 2014)

http://www.aphis.usda.gov/ws/ca alomar Mountain sta Irrigation Oceanside Capitan Grande Escondido Carlsbad Canyon servation Descanso Hauser Canyon 94,25 Hauser Mountain San Diego Lake Morena Corral Canyon © 2014 INEGI Corte Madera © 2014 Google gBata SIO, NOAA, U.S. Navy, NGA, GEDGO Image-Landsat Trecate **Barrett Lake** Coronado Canyon Iffmana

Goals, Objectives, Requirements

- Eradication of feral pigs from San Diego County
- Document damage caused by feral pigs in San Diego County.
- Access to properties and permission to use all necessary tools and methods.
- Cooperation and accountability with other agencies and entities that are removing or monitoring pigs on their property.
- Collect samples for disease and DNA analysis (blood, liver, kidney, hair, muscle tissue)



Budget

- Funds from Forest Service, SANDAG, and APHIS.
- Support five employees (Four Technicians, one Supervisor).



 Equipment costs most significant for the first six months.

> Protecting Property



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W Wildlife Services

Damage

http://www.aphis.usda.gov/ws/ca



Wildlife Services

Damage

http://www.aphis.usda.gov/ws/ca



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Tools and Methods

- Trail cameras and baiting
- Traps (cage, corral, snares)
- Shooting
- Night vision, thermal equipment
- Maps, GPS, GIS software
- Online research, webpages
- Dogs
- Fixed wing aerial hunting
- Helicopter aerial hunting (turbine)





Trail Cameras and Baiting

- Monitor for activity at bait holes, water sources, trap locations, and rooting activity
- Lock boxes on public land
- 270 locations and currently
 150-175 active
- Bait-corn, water, yeast, kool-aid mix



Cage Traps

- 4'x3'x8'
- Simple trigger device
- Single or small numbers of pigs







Corral Traps

- Possible to catch large numbers at one time
- Customize size and configuration
- Different door designs and trigger devices
- Requires two people in most situations
- 6'x5' panels
- 7-10 panels





- Target trap shy pigs
- Suppressor compatible
- Areas with limited access to transport traps
- Monitor bait piles with cameras for consistent activity
- Ground blinds or tripods
- Two people (spotter/shooter)
- Least cost effective and time consuming if unsuccessful...very frustrating!



Snares

- Remote areas with thick vegetation
- Trail cameras to monitor for non-targets
- Neck and foot snares
- Adjustable to minimize non-targets
- Private property with no pets or people present
- Last resort if other options have been extinguished or unsuccessful





Dogs

- Requires a very experienced houndsman and well trained dogs.
- Target individual pigs in specific locations.
- Requires a "hot" track to decrease chase time.
- Pigs are tracked and cornered
- Dispatched with firearm.
- Two WS Specialist from TX (March)
- GPS tracking collars on all dogs



Components

					CONTRACTOR STATES
Property	Hours	Camera Nights	Corral Trap Nights	Cage Trap Nights	Snare Nights
Forest Service	5,565	16,601	201	542	200
BLM	1,118	2,391	279	26	0
City Watershed	364	1,765	0	0	6
County Parks	209	1,348	0	0	0
Private	1,356	4,092	36	79	4
Total	8,612	26,197	516	647	210

Removal Methods

http://www.aphis.usda.gov/ws/ca

Method	Take
Cage Traps	6
Corral Traps	26
Shooting	7
Spotlight	0
Night Vision/Thermal	3
Dogs	2
Snares	2
Total	46

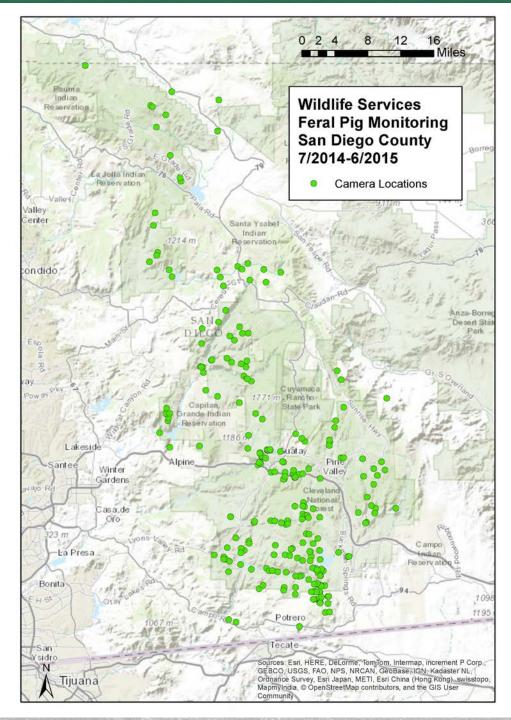


Camera Locations

- 270 different camera locations
- ~150 currently active

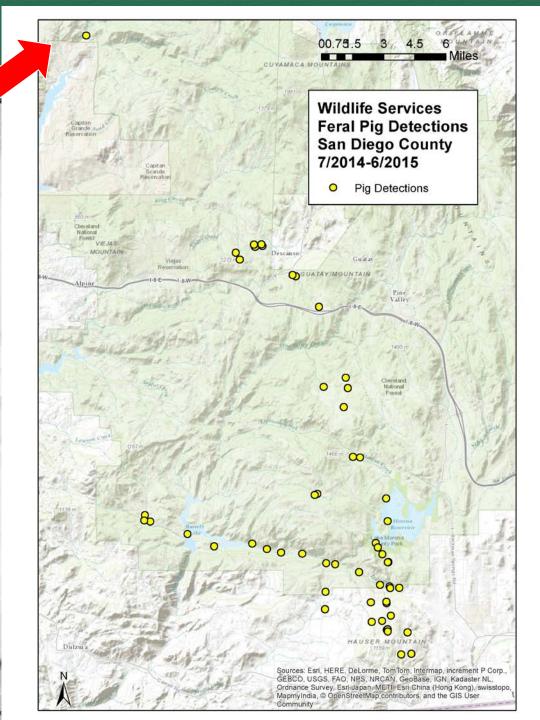


Protecting



Pig Detections

One picture of one pig near
 El Capitan
 Reservation



Pig Removal Locations



Home Range

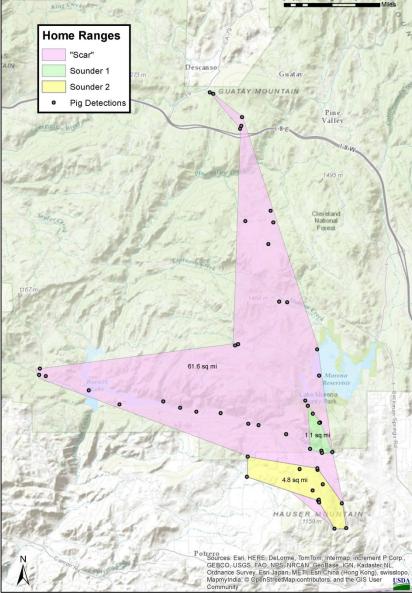
http://www.aphis.usda.gov/ws/ca

- Boar's home range 30-61 square miles.
- Sounder or juvenile's home range 1-10 square miles.

"Scar"



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Population Structure

- 19 Male/27 Female
- 11 Adults/15Juveniles/20Piglets
- Average weight 80
 lbs. (15lbs-400
 lbs.)



Typical Sounder

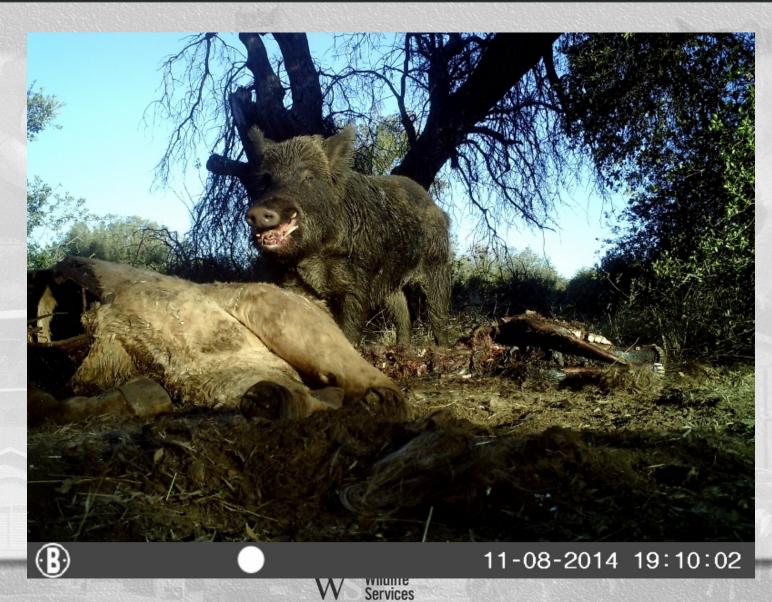
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W Wildlife Services

Corte Madera Ranch

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Castrated Boar



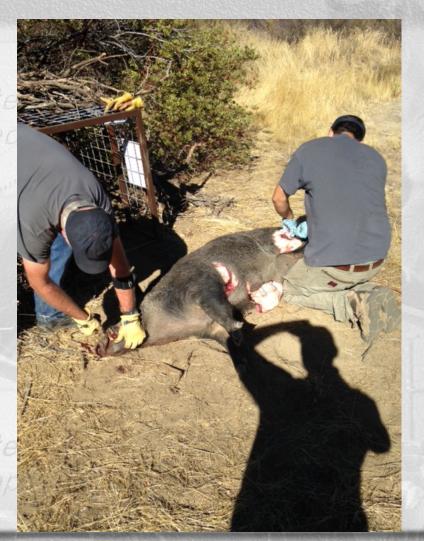






Disease Monitoring

- Swine Brucellosis
- Pseudorabies
- Classical Swine Fever
- Porcine Reproductive and Respiratory Syndrome
- Toxoplasmosis
- Swine Influenza
- Leptospirosis



Conclusions

- One year ago population was estimated at 350-500, but probably closer to 1/3rd of that
- Recreational hunting not making a large impact on population.
- No pigs recorded in Palomar Mountains, Santa Ysabel, Laguna Mountains.
- High probability of three, possibly four, separate releases between 2000-2012.
- Adult boars have a large home range (50-60 square miles).

Future Plans

- Expand monitoring areas across county
- "Ms. Piggy" method for adult boars
- Judas pig
- Continue to collect genetic samples to investigate population connectivity
- Continue to find and kill pigs

Protecting-

Huh?



Protecting Property

W Wildlife Services