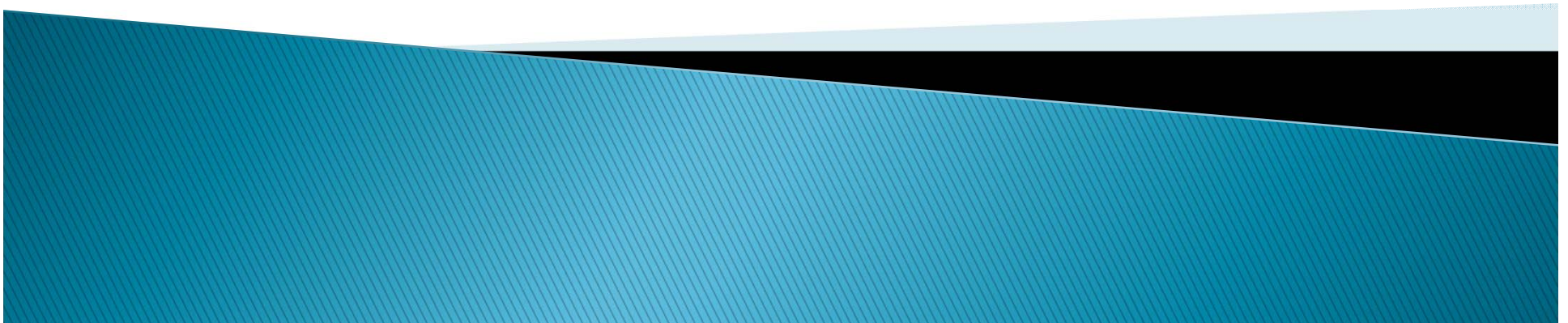


SCWDS Arthropod Surveillance

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Southeastern Cooperative Wildlife Disease Study
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USDA-APHIS-VS
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Committee on Parasitic Diseases
United States Animal Health Association
October 19, 2016, Greensboro, North Carolina



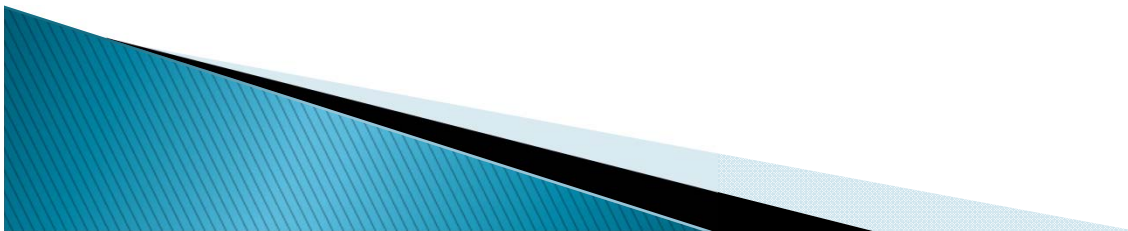
SCWDS Arthropod Surveillance

- ▶ USDA–APHIS–Veterinary Services Cooperative Agreement (FY2016)
- ▶ Cattle Fever Ticks in South Texas
- ▶ Tropical Bont Ticks in the Caribbean
- ▶ *Amblyomma auricularium*
- ▶ *Culicoides*, BT and EHD in the Southeast



Tick Surveys in South Texas

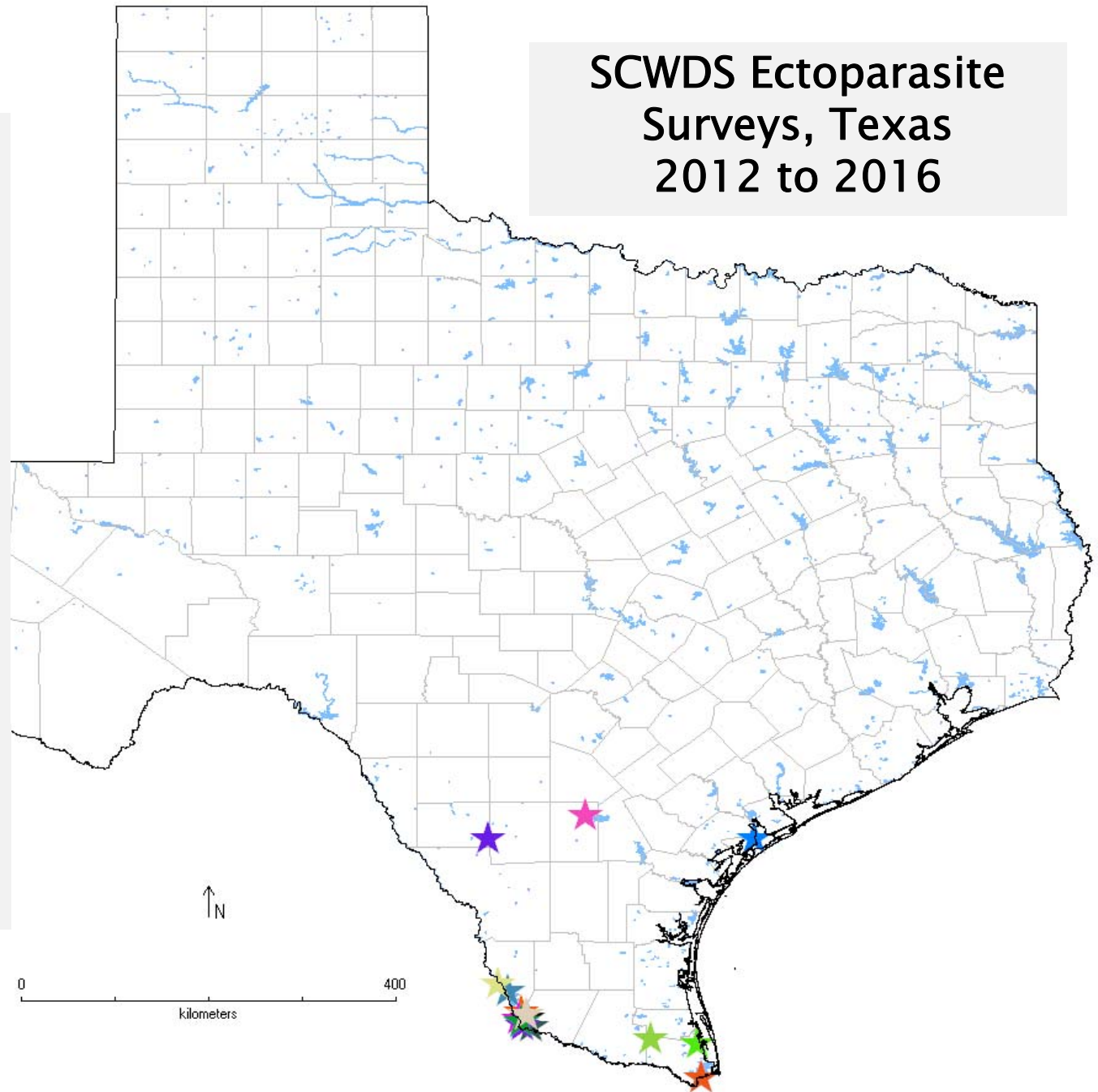
- ▶ Surveys began in February 2012
- ▶ Objective:
 - Determine if wildlife are serving as hosts of the two species of fever ticks; *Rhipicephalus (Boophilus) annulatus* and *Rhipicephalus (Boophilus) microplus* in the quarantine zone in South Texas



SCWDS Ectoparasite Surveys, Texas 2012 to 2016

TX Survey Sites

- ★ Aransas NWR
- ★ C.B. Ranch
- ★ Cp. Ranch
- ★ Chaparral WMA
- ★ Cl. Ranch
- ★ Daughtrey WMA
- ★ G.T.
- ★ L.A. Ranch
- ★ Laguna Atascosa NWR
- ★ L.L. Ranch
- ★ Las Palomas WMA
- ★ L.P.
- ★ L.B. Ranch
- ★ L.E.W. Ranch
- ★ M.M. Ranch
- ★ P. Ranch
- ★ R. Ranch



South Texas Tick Survey

- ▶ During the initial surveys:
 - At least 20 tick species collected
 - Soft ticks: *Argas brevipes*, *Carios* sp. (probably *dugesii*), and *Ornithodoros turicata*
 - Hard ticks:
 - *Amblyomma* (i.e., *americanum*, *auricularium*, *cajennense*, *imitator*, *inornatum*, *maculatum* and sp. (an undescribed nymph)
 - *Anocentor nitens*
 - *Dermacentor* (i.e., *albipictus*, *halli*, and *variabilis*)
 - *Ixodes* (i.e., *affinis* (First report in Texas), *conepati*, *cookei*, *scapularis*, *texanus*, *tovari*, and *woodi*)

Cattle fever ticks not found



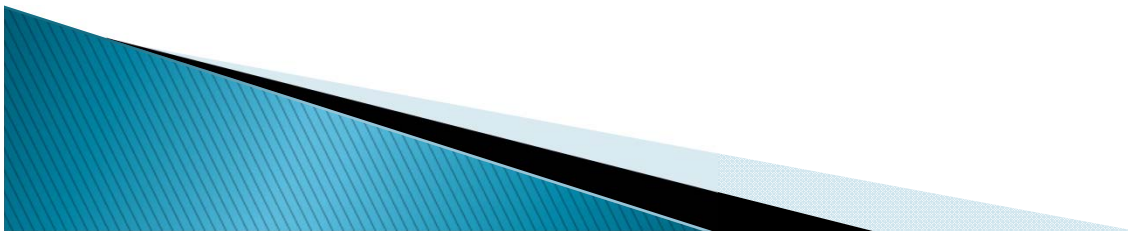
Feral Swine Tick Survey 2015

- ▶ Survey conducted at Laguna Atascosa NWR
- ▶ Laguna Atascosa: white-tailed deer and nilgai infested by cattle fever ticks
- ▶ Survey for ticks on feral swine conducted in August 2015
- ▶ SCWDS collaborated with USDA-APHIS-Wildlife Services, Laguna Atascosa NWR, USDA-APHIS-Veterinary Services, Texas Animal Health Commission
- ▶ Feral swine examined = 81; all infested by ticks; cattle fever ticks = none found



Deer and other Ungulates 2016

- ▶ Deer and other ungulates will be examined at processing facilities in South Texas
- ▶ November 2016 –January 2017
- ▶ In collaboration with USDA–APHIS–VS and the Texas Animal Health Commission



Vieques, Puerto Rico

- ▶ Surveys for the tropical bont tick conducted in Vieques October–November 2014, March–April 2015, June 2015, October 2015, April 2016 and will continue in 2017.
- ▶ Vieques not known to be infested but feral horses present.



Vieques, Puerto Rico

- ▶ Surveys conducted throughout the island
- ▶ Surveys for ticks on mongooses, cattle egrets, and feral horses



Vieques, Puerto Rico

- ▶ Surveys include the east end of Vieques
- ▶ East end previously Camp Garcia, U.S. Navy, now Vieques NWR
- ▶ East end previously used for bombing practice and not accessible due to unexploded ordinance
- ▶ Feral horses and cattle present
- ▶ Beginning in 2015 SCWDS working with USFWS to conduct surveys on east end in cleared areas
- ▶ Tropical bont ticks not found to date



Amblyomma auricularium

- ▶ Geographic range includes South America, Central America, and Mexico
- ▶ Sporadic collections in Texas and Florida
- ▶ Individuals reported in Florida three times since 2000
- ▶ SCWDS 2004–2007 data in press:
 - 11,192 specimens collected
 - 14 contiguous counties in South Florida
 - Numerous mammals hosts
 - Bird hosts reported for the first time



