Vampire Bats

PREPARING FOR RANGE EXPANSION INTO THE US

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Vampire Bat Range Expansion

- Climate Models predict South Texas and parts of Arizona as suitable habitat due to climate change.
- Mexican experience indicates range expansion northwards at about 50 miles per year.
- Vampire bat strain rabies cases within 25 km of Texas border in Tamulipas.
- AZ also at risk from expansion in the west.
Vampire Bat Issues

- Rabies in Livestock
- Exposure to people via livestock interactions
- Associated costs with livestock losses and PEP
- WE WILL NOT BE MANAGING THE BAT-ONLY THE ASSOCIATED RABIES
Costs

- Anderson et al. (2014) estimated costs from predicted animal deaths, increased animal testing, PEP between $7M and $9.2M annually.
- Estimate does not include livestock vaccinations or any government costs associated with management.
Current Plan

- Training
- Surveillance
- Outreach
Training

- Biology and Habitat
- Signs and symptoms of disease
- Methods of capture
- Methods of management
  - Trapping
  - Vampricide application
Surveillance

- Historically, rabid animals are discovered before bats are located
- 1 case on VB Rabies in TX already
- Cases in MX indicate close proximity
- Cattle Sale Barn Inspections
- On Ranch Inspections
- Trapping around livestock
- Epidemiological Investigations of suspect livestock deaths
Outreach

- Ranchers on both sides of the International Border
- Livestock workers (Veterinarians, Tick Riders, sale barn employees)
- Wildlife Officials (FWS-Refuges, TPWD, AZG&F)
- DVD provided to more than 1200 households
Emerging Issues

- **Vaccines**
- Utilize colony and grooming behaviors to deliver a vaccine.
- Initiate discussions about vaccination programs for livestock.
Emerging Issues

- Feral Swine as food source
- Venezuela and Brazil-trail camera photos
- Mexico - 22 of 188 pig photos (11.7%) show active vampire bat interaction
- Potentially alters the surveillance protocols and patterns
- Forces reconsideration of outreach - need to reach hunters?