Tools and Techniques for Feral Hog Management

The View from the Mainland

Hawai‘i Conservation Conference
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Feral Hog Distribution
Domestic Livestock Disease Reduction

- Disease risk involves accurate data on infection rates, exposure probability/Biosecurity
- Brucella risk reduction likely similar to reduction in breeding hog numbers
- Pseudorabies reduction more difficult
Pseudorabies Reduction

★ Function of biosecurity
★ Infection rate not equal to Infective rate
★ Expect percentage of the population with antibodies to spike then decline over time
★ Opportunistic sampling only identifies presence- not prevalence
Human Health Risks

- Feral hogs carriers of leptospirosis
- Brucella infections of hunters
- Feral hogs spread E. coli in watersheds
- E. coli management requires reduction in both numbers and range of hogs
Agricultural Damage

- Grain crops- rice, wheat, sorghum, corn
- Pasture and alfalfa
- Vegetable crops and E. coli
- Specialty crops, nuts, melons
Property Damage

- Property damage is a function not only of numbers but of behavior and vulnerability of resources.
- Reduction in hog numbers may not equal reduction in damage.
- Change in behavior of hogs may equal reduction in damage.
- Amount of resources exposed to hogs affects damage.
Ecological Damage

- Predation on ground nesting species - turtles, herps and birds
- Spread invasive plants through rooting and droppings
- Competition with other wildlife - mast, low growing plants
- Soil disturbance and erosion
Model Population Growth
Limits to Control

- Feral hogs viewed as a Resource
- Landowner complacency or outright refusal to allow control
- Agricultural issues with free-ranging livestock
- Cultural Issues
- Legal status
National Feral Hog Take FY 2006

19,752 Total Taken
14,441 Texas Take
Texas Feral Hog Take
FY 2006

14,650 Feral Hogs Taken

- Aircraft: 50%
- Snare: 27%
- Traps: 13%
- Shooting: 9%
- Other: 1%
Livetrap
Snare Design

- 1/8 or 3/16 Cable
- Commercial Locks or Homemade from Angle Iron
- Swivel
- Fence Sets with Drag
- Neck Catch to be humane
Population Reduction

MONTH

0 200 400 600 800 1000 1200 1400 1600

1 4 9 14 20 23 25 27 29 33
Population Management

Effective Performance Goal needs to include:

☆ Numbers Removed
☆ Estimates of numbers remaining
☆ Relationship to previous or subsequent control
Biomass v. Numbers

- Crop and Ecological damage relates to Biomass more than numbers
- Small (<60 lbs) hogs consume 5% body weight daily
- Large Hogs consume 3% as maintenance diet and 5% of high quality feed
- Damage relates to the biomass of hogs on the landscape and not just numbers
## Texas Examples

<table>
<thead>
<tr>
<th>Site A</th>
<th>Site B</th>
</tr>
</thead>
<tbody>
<tr>
<td>✷ 80 Sq Mi</td>
<td>✷ 80 Sq Mi</td>
</tr>
<tr>
<td>✷ 7.4 hrs helicopter</td>
<td>✷ 14.7 hrs helicopter</td>
</tr>
<tr>
<td>✷ 365 hogs removed</td>
<td>✷ 130 hogs removed</td>
</tr>
<tr>
<td>✷ 39 were small hogs, 250 were medium hogs and 76 were large hogs</td>
<td>✷ 88 were small hogs, 38 were medium hogs and 4 were large hogs</td>
</tr>
</tbody>
</table>
Texas Example

<table>
<thead>
<tr>
<th>UOM</th>
<th>Site A</th>
<th>Site B</th>
<th>B/A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Hogs</td>
<td>365</td>
<td>130</td>
<td>.356</td>
</tr>
<tr>
<td>Hogs/hr aerial</td>
<td>49.3</td>
<td>8.84</td>
<td>.179</td>
</tr>
<tr>
<td>Hogs/sq mi</td>
<td>4.56</td>
<td>1.62</td>
<td>.355</td>
</tr>
<tr>
<td>Total Biomass removed</td>
<td>40,390 lbs</td>
<td>6940</td>
<td>.172</td>
</tr>
<tr>
<td>Biomass removed/sq mi</td>
<td>505</td>
<td>86.75</td>
<td>.172</td>
</tr>
</tbody>
</table>
Biomass Reduction

- Impractical to assess on large scale
- Estimates can be made by experienced personnel
- New estimates required for subsequent control efforts
- Biomass estimates may also provide insight as to the status of a population on the population growth curve
Summary

- Numbers of hogs killed not the only reporting element
- Biomass reductions are important parts of hog damage control
- Population Management relies on removal of breeding hogs
- Damage management is recurring when eradication is not an option