



Feral Hog Biology, Damage & Control

Jared Timmons
Extension Associate
Texas A&M AgriLife Extension Service
Dept. Wildlife & Fisheries Sciences



Feral Hog

- Feral – escaped domestic species surviving in wild
- Family Suidae
- *Sus scrofa*
- Includes Eurasian (Russian) boar, feral swine and hybrids
- Non-native
 - European/Asian species





History (U.S.)

- 1539 – Hernando de Soto brought pigs to Atlantic Coast of Florida
- 1890 – Austin Corbin brought Russian boars into New Hampshire



History (Texas)

- ❑ Late 1600s - 1700s Spanish missionaries brought in pigs.
- ❑ 1830s – Colonists abandoned homes during war with Mexico.
- ❑ 1920s – 1930s Depression forced farmers to leave their land for jobs in cities.

History (Wild boar in TX)

- 1930s – Released/escaped in Aransas Co.
- 1939 – Released in Calhoun Co.
- 1940 – Bexar Co. released on ranch and floods destroyed fences.



Size

- Smaller and leaner than domestics
- Males
 - Average 180 lbs
 - Can be up to 400 lbs plus
- Females
 - Average 150 lbs



Biology

- No eye shine



Biology (cont.)

- Have 4 continually growing incisors (tusks)



Biology (cont.)

- Boars have shield on shoulder that is made of thickened skin and tissue.
 - Serves as protection



Life Span

- Typically between 4 and 8 years
- Depends on hunting pressure mainly
- No natural predators



Biology

- Generalist
Omnivores – switch diet as food availability changes.
- Lack sweat glands –
wallow, more active nocturnally



Competition

- Compete with native wildlife and livestock for available resources



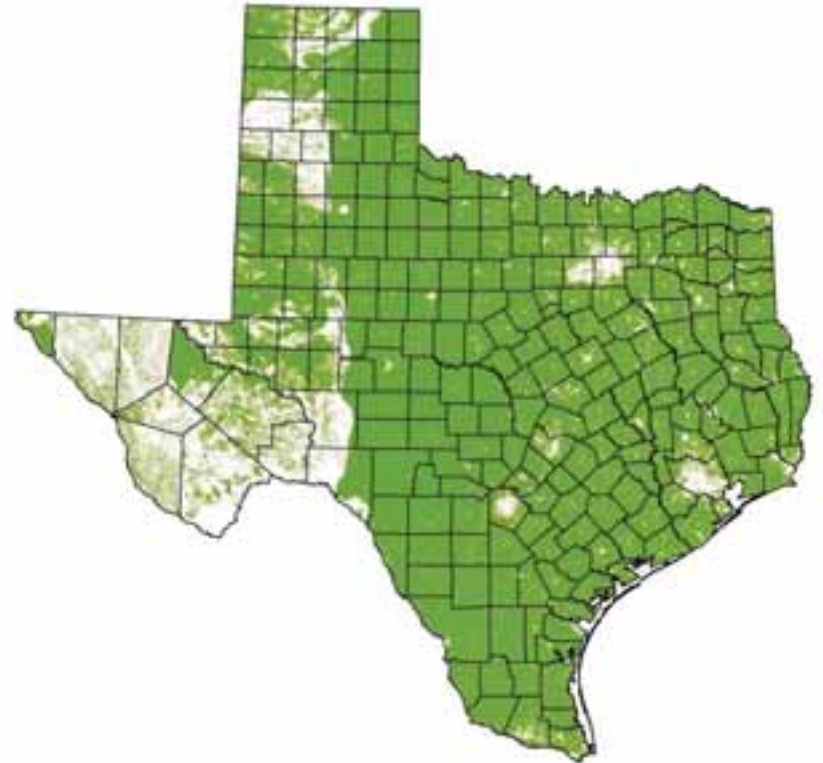
Behavior

- Diurnal in cool months
- Crepuscular to nocturnal in warm months



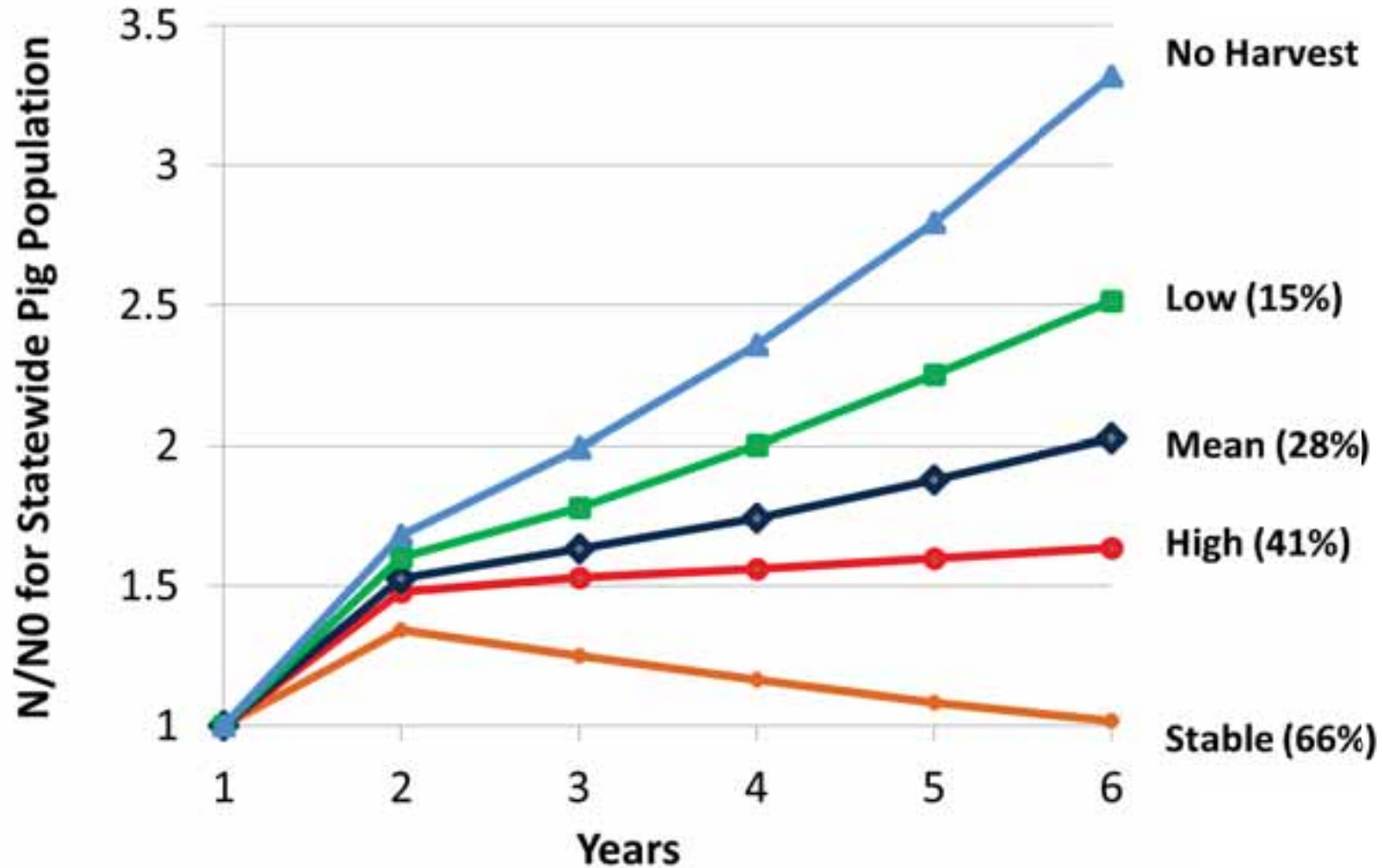
Feral Hog Numbers

- 79% of the state is suitable habitat, total 134 million acres
- Density is 1.33-2.45 hogs/square mile
- Estimated at 2.6 million in Texas.



Source: Lopez and Higginbotham 2011

Feral Hog Population Harvest Model



Reproduction

- Avg. 1-2 litters/yr
- Avg. 4-6 young/litter



Social Structure

- Females and younger animals are in groups called sounders
- Older boars typically solitary



Tracks



Scat



Damage



Wallows



Rubs



Fences



Control Options



Trapping

- Trap location should be where trails converge and be upwind of travel route.



Trapping

- Always pre-bait
- Bait types:
 - Soured corn
 - Strawberry gelatin mix
 - Livestock cubes
 - Carrion
 - Many others

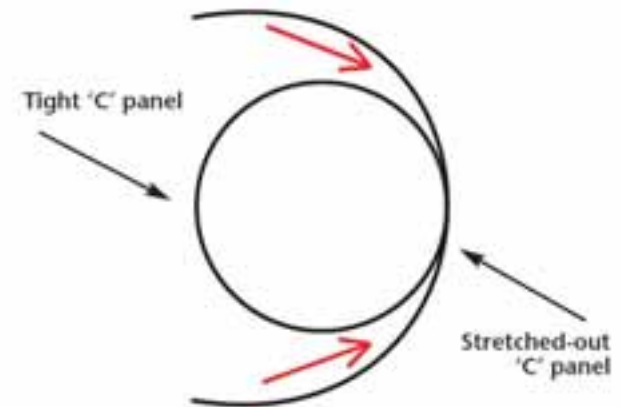


Trapping

- Box trap



Corral Trap Designs



Trapping - Gates



Gate Modifications



Gate Modifications



Traditional Hunting



Dog Hunting

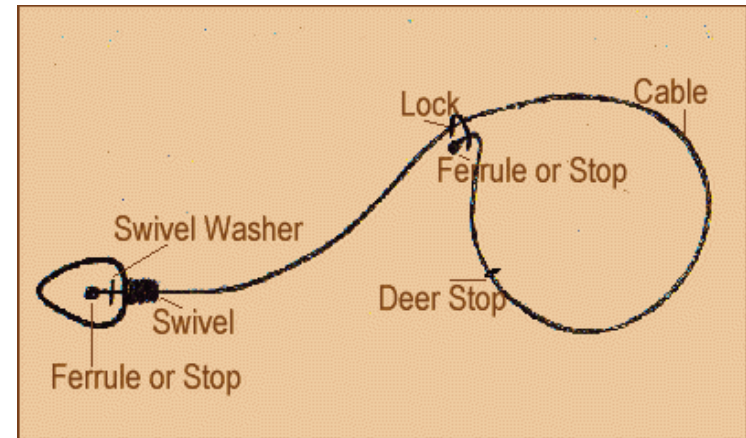


Aerial Gunning



Snaring

- 1/8 or 3/32 inch cable
- 42 inches long or longer
- locks made with angle iron or heavy duty washers
- Caution – Snares will also catch non-target species



Exclusion Fencing



Plum Creek Accomplishments



Contacts

- 39 presentations
 - 4,652 attendees
- 69 site visits
- 4,922 contacts
- 3,350 contact hours



Feral Hog Management Workshops

- Since 2007: 1204 registered attendees
- Covered feral hog biology, behavior, laws, regulations, and management strategies



Reporting Website

- 329 reported by landowners
- 372 aerial control 2010
- Total 718 removed from watershed



Media

- 15 with AgriLife Communications
- 2 with TSSWCB
- 2 Texas Farm Bureau radio interviews

New feral hog publication strives to set the record straight on accurate numbers

Figures show feral hog harvest numbers lag behind population growth

Writer: Steve Byms, 325-653-4576, s-byms@tamu.edu

Contact: Jarod Timmons, 254-485-4886, jbtimmons@ag.tamu.edu

COLLEGE STATION – Hardly a day goes by that the feral hog invasion doesn't draw media mention, but the math associated with many of the reports has been mostly speculative – until now, said a Texas A&M AgriLife Extension Service expert.

Jarod Timmons, AgriLife Extension Plum Creek Watershed Feral Hog Education Program assistant in San Marcos, said the new publication *Feral Hog Population Growth, Density and Harvest in Texas (SP-472)*, has solid numbers backed by research to substantiate many of the claims made by those following the feral hog invasion. The publication available for \$1 per copy joins more than a dozen other feral hog-related publications available at <http://agrilifebookstore.org>.

"It's pretty well accepted that feral hogs cause at least \$52 million in agricultural losses each year in Texas,"

Timmons said. "But what's poorly understood are the pests' population dynamics; their survival, reproduction and density for example. The work represented in this publication literally puts facts to figures when it comes to this invasive species that exhibits the highest reproductive capability of any hoofed animal. That trait alone makes population reduction difficult."

The publication reports the number of feral hogs in the state as between 1 million and 4 million. These estimates are not based on scientific fact, though increased reports of damage suggest the statewide population is growing and expanding in range.

By examining a number of scientific studies throughout the southeastern U.S. and Texas, the publication authors were able to create a statewide mathematical model of feral hog populations



Excluding Feral Hogs from Wildlife Feeders

Feral hogs create many problems for land managers, one of which is consuming supplemental feed intended for wildlife. To restrict feral hogs from feeders exclusion fences can be constructed that still allow wildlife access to feed. This article titled "Excluding Feral Hogs from Wildlife Feeding Stations" created by several of my colleagues and me presents research conducted on exclusion fences by the United States Department of Agriculture and Texas AgriLife Extension Service. Conclusions on fence heights and efficiency are provided, as well as instructions for constructing a feral hog exclusion fence around a wildlife feeder. This article can be viewed below or at the Texas AgriLife Bookstore website.

[Using Fences to Exclude Feral Hogs from Wildlife Feeding Stations](#)

Blogs

- Over 31 blogs



Using Fences to Exclude Feral Hogs from Wildlife Feeding Stations

Jared Timmers¹, Justin Arpner², Dale Carpenter³, and James E. Gentry⁴
¹Texas A&M University, ²Texas A&M University, ³Texas A&M University, ⁴Texas A&M University

Research conducted in the south Texas brush country has found that exclusion fences are an effective way to keep feral hogs from eating corn and supplemental feeds that are intended for other animals. To keep hogs from consuming protein pellets from feed hogs and through other means, owners can use exclusion fences to keep hogs out (Fig. 1A).

To reduce the damage and maintain many properties for wildlife, exclusion fences can be used and as bait to attract them into feeding sites. They also provide supplemental feed such as protein pellets in order to increase production.

Wildlife and land managers put out thousands of bushels of corn each year and through most of this corn is intended for deer. Feral hogs consume a substantial portion of it (Fig. 1B). Hogs also are destructive to other game species such as ground-squirrels, birds, quail and waterfowl.



Figure 1A. An exclusion fence can be used to keep hogs out of a feeding site.



Figure 1B. Feral hogs can be attracted to a feeding site by using protein pellets.

Keeping hogs out of the corn

To determine whether feeding could be used

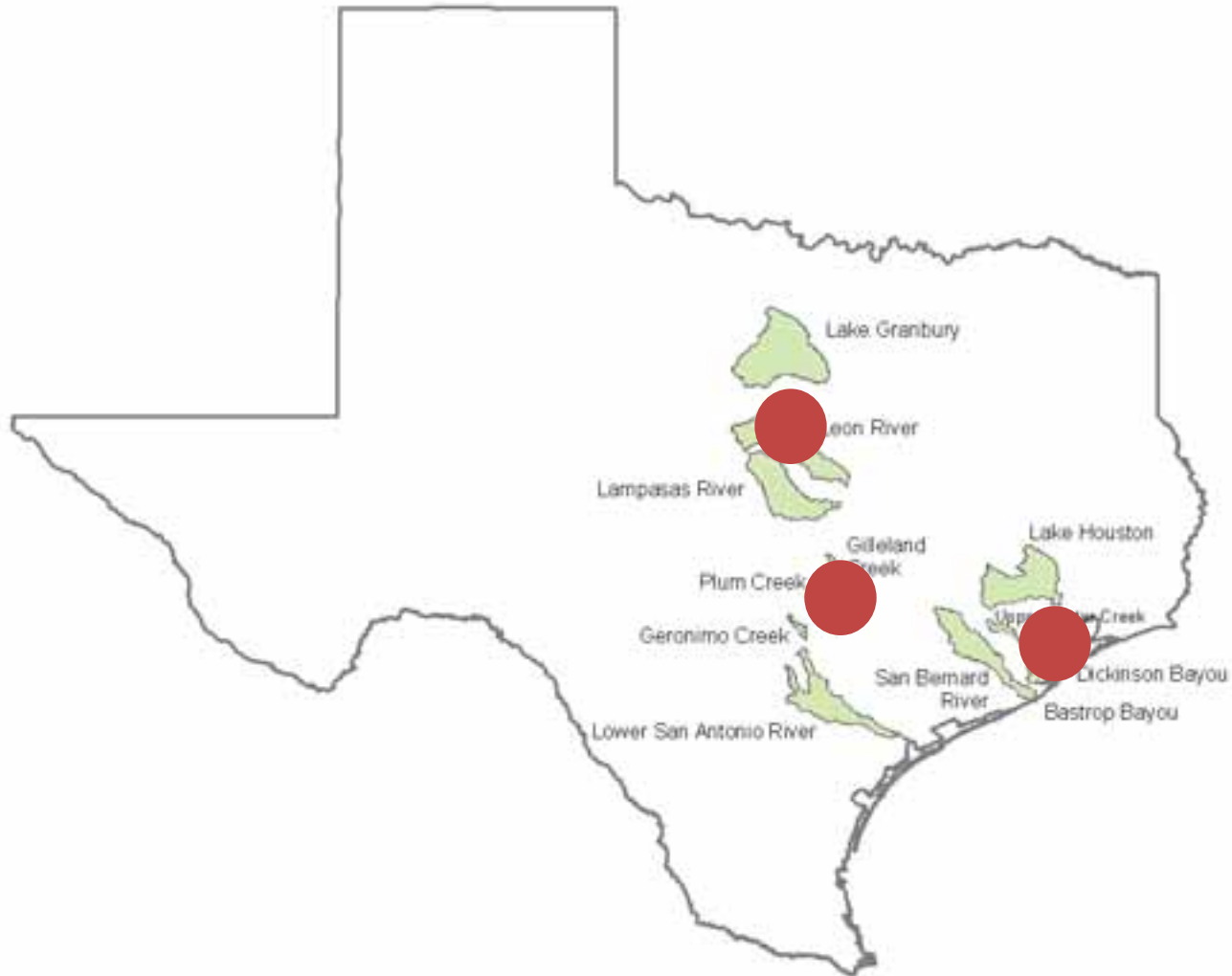
to keep hogs out of a feeding site, the U.S. Department of Agriculture and AgriLife Extension Service tested various heights of welded-panel fences and studied their effectiveness.

YouTube

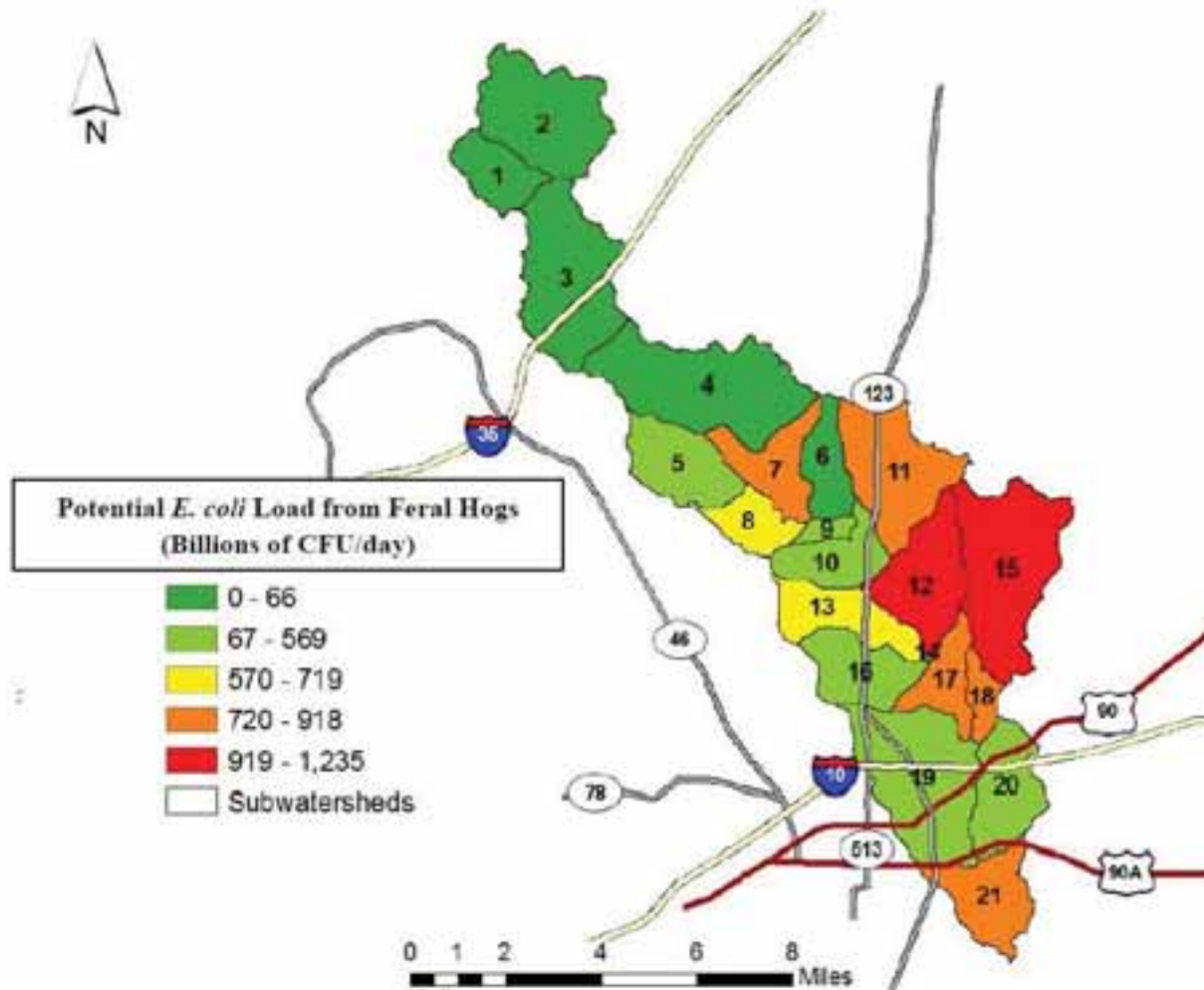
- 10 videos viewed over 156,000 times

The image is a screenshot of a YouTube channel page. At the top, the YouTube logo is on the left, and search, browse, movies, and upload buttons are in the center. On the right, there are links for 'Create Account' and 'Sign In'. Below the navigation bar, the channel name 'Wildlife and Fisheries Sciences Extension' is displayed, along with a 'Subscribe' button and navigation tabs for 'All', 'Uploads', and 'Playlists'. The main video player shows a man in a white shirt and yellow gloves working with a wire on a wooden pole. Below the video player, the video title 'Snaring feral hogs - Part 4 - Setting snares on utility poles' is visible, along with the upload date 'Aug 23, 2010' and view count '8,338 views'. To the right of the main video, a list of other videos is shown, including 'Snaring feral hogs - Part 1 - Introduction' (4,472 views), 'Snaring feral hogs - Part 2 - Building your own' (8,811 views), 'Snaring feral hogs - Part 3 - Setting snares on' (8,247 views), 'Snaring feral hogs - Part 4 - Setting snares on' (8,338 views), and 'Recognizing Feral Hog Signs' (988 views).

Future Feral Hog Education Program



Hogs and Bacteria



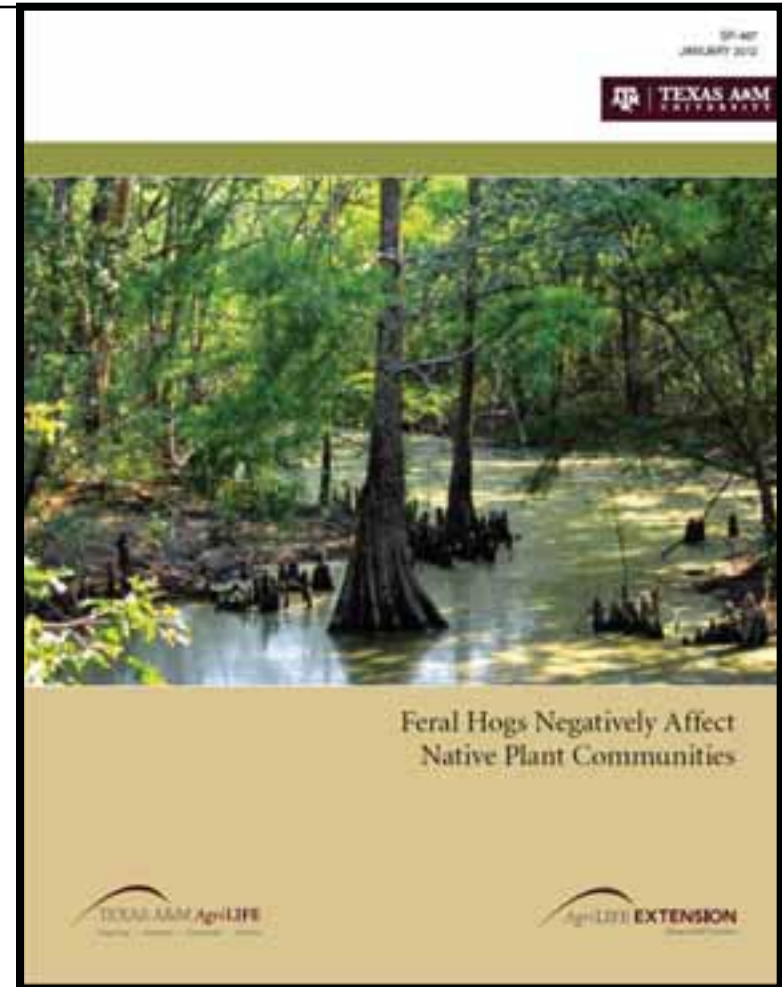


Scope of Work

- 2 new extension publications
- 2 new extension web-videos on YouTube
- Landowner site visits
- 6 – 4 hour workshops annually
- 6 – 1 hour workshops annually

Fact Sheets

- <http://pcwp.tamu.edu/FeralHogs/>
- 15 available
- 7 available in Spanish
- Over 10,000 handed out
- Over 30,000 downloaded from:
 - Scribd
 - AgriLife bookstore
 - Plum Creek Website



Feral Hogs Community of Practice

- http://www.extension.org/feral_hogs
- National collaboration between professionals
- Articles, FAQs, Ask an Expert
- Webinars

Feral Hogs

Biology, management, and control of invasive feral hogs

Here are some of our featured articles and activities...



Rooting Behavior of Feral Hogs

One of the more destructive habits of feral hogs is their rooting behavior. Feral hogs root to obtain food. Rooting breaks up and loosens the surface and near...

[More...](#)

This resource area was created by the
Feral Hog community



In The News...

June 11, 2012
Feral Hog 'Community of Practice'
Provides Multi-state Expertise,
Resources

January 17, 2012
Publication Focuses on Feral Hog
Exclusion from Wildlife Feeding Stations

[More...](#)

Resource Area Feeds

• [Track all new content](#)

Available resources

- <http://pcwp.tamu.edu/FeralHogs/>
- Publication links
- Landowner and general public reports
- Internet presentations with voice-overs
- Site visits for landowners
- YouTube videos - <http://www.youtube.com/user/wfsceextension>

APRIL LIFE EXTENSION
Small text below logo

10-419
701



Feral Hogs Impact Ground-nesting Birds

Janet Thompson, James C. Cahery, Dale Rollins, Nikki Dennis, and Mark McFarland*
Texas AgriLife Extension Service
The Texas A&M University System

Landowners in the Plum Creek Watershed of Llano, Caldwell, and Travis counties are aware of the damage that feral hogs can cause to crops and pastures. Many also realize that feral hogs compete with native wildlife for food sources. Typically, feral hogs are not thought of as predators, but they fill that role as well.

Feral hogs are opportunistic omnivores, scavenging they eat whatever plant and animal matter is available. Eggs of ground nesting birds like northern bobwhite and wild turkey are on their menu.

Northern Bobwhite
The northern bobwhite (Figure 1) has been declining over much of its historic range for several decades. To better understand positions of northern bobwhite nests, Extension wildlife specialists teamed with landowners and county extension agents to monitor predation rates at the Rolling Plains of Texas.

During trials conducted in 1991 and 1994, they found 23.2% of unsampled nests were consumed by feral hogs on a ranch in Fossil County, and 11.7% of unsampled nests (Figure 2) were depredated by hogs on a ranch in Shackelford County. This suggests that feral hog nest predation is a contributing factor to the northern bobwhite population decline. These experiments were conducted nearly twenty years ago, and feral hog populations have increased substantially since that time.

Wild Turkey
Three subspecies of wild turkey are found in Texas. The most common and wide-ranging is the Rio Grande wild turkey. Eastern wild turkey are less common and reintroduction efforts are underway in eastern Texas to re-establish their population. South populations of the Mexican's wild turkey are found in western Texas. For Rio Grande and eastern wild turkey, researchers have documented nest predation by feral hogs (Figure 3).



Figure 1. Northern bobwhite male.



Figure 2. Three eggs used to unsampled northern bobwhite quail's nest.

*Rollins is Extension Assistant, Associate Professor and Extension Wildlife Specialist, Professor and Extension Wildlife Specialist, Extension Program Specialist, Professor and Extension Wild Turkey Specialist, respectively.

- Contact Us
- Project Overview
- Meetings
- Feral Hog Project
 - Public Report
 - Landowner Report
 - Calendar
 - Feral Hog Links
 - Capture Techniques
 - Maps
 - Trapping Effort
- Water Quality
- Outreach and Education
- Publications
- Watershed Protection Plan
- Links
- Partners



Landowner Report

Information is confidential and will only be accessed by project staff for feral hog management purposes

Select a report month and year.

Have you observed feral hogs on your property this month?

Yes
 No

Please mark all of the areas in which feral hogs had negative impacts on your property in the past month.

- | | |
|--|--|
| <input type="checkbox"/> Growing or planting commodity crop losses | <input type="checkbox"/> Fences, water troughs, or other improvements |
| <input type="checkbox"/> Growing or planting specialty crop losses | <input type="checkbox"/> Equipment or vehicles |
| <input type="checkbox"/> Stored Commodities | <input type="checkbox"/> Personal injuries |
| <input type="checkbox"/> Pastures | <input type="checkbox"/> Owner or employee time |
| <input type="checkbox"/> Wetlands | <input type="checkbox"/> Loss of land value |
| <input type="checkbox"/> Livestock (injury, deaths, diseases) | <input type="checkbox"/> Loss of lease value, damage to food plots/feeders |

Please estimate your total economic losses due to feral hogs in the past month on all your property(s). This includes items marked in the question above.

\$ (Dollars only)

Please mark all of the control methods you used on your property(s) this month and the number of hogs taken using each.

Control method	Number of hogs
<input type="checkbox"/> Trapped and destroyed	<input type="text"/>
<input type="checkbox"/> Trapped and sold	<input type="text"/>
<input type="checkbox"/> Lease hunting	<input type="text"/>
<input type="checkbox"/> Trapped and moved from premise	<input type="text"/>
<input type="checkbox"/> Owner/Employee hunting	<input type="text"/>
<input type="checkbox"/> Use of dogs	<input type="text"/>
<input type="checkbox"/> Other (snare, aerial gunning)	<input type="text"/>

- Project Overview**
- Meetings**
- Feral Hog Project**
 - Public Report
 - Landowner Report
 - Calendar
 - Feral Hog Links
 - Capture Techniques
 - Maps
 - Trapping Effort
- Water Quality**
- Outreach and Education**
- Publications**
- Watershed Protection Plan**
- Links**
- Partners**



Information is confidential and will only be accessed by project staff for feral hog management purposes

Your name:

Your phone number:

Your email address:

When did you observe feral hogs?
 Tip: format date as MM/DD/YYYY, or select from the calendar.

In which county did you observe feral hogs?

What was the nearest intersection to the feral hogs?
 Zoom then click a point on the map below, or enter the latitude and longitude coordinates:

 Lat:
 Lon:

What was the nearest stream or waterway?

Number of feral hogs observed.

Juveniles:

Adults:

Describe the damage.

Project Funding

- Provided through a Clean Water Act 319(h) nonpoint source grant from the Texas State Soil and Water Conservation Board and the U.S. Environmental Protection Agency



Questions?



Jared Timmons
Extension Associate
(254) 485-4886
jbttimmons@ag.tamu.edu