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**FERAL SWINE WORKING GROUP
MEETING MINUTES**

**Chair: Gray Anderson (Virginia)
Vice-Chair: Jim LaCour (Louisiana)**

**Wednesday, September 8th
Time: 3:15 – 5:15 PM (EDT)**

111th AFWA Annual Meeting (virtual)
<https://www.afwaannualmeeting.org/>

Agenda

- 3:15 PM Call to Order/Review Agenda (G. Anderson/J. LaCour)
- 3:20 Introductions
- 3:30 Work Plan (G. Anderson)
- 4:00 National Feral Swine Damage Management Program update (Michael Marlow)
- 4:15 Report from the National Wild Pig Task Force (G. Anderson)
- 4:30 Report from the SEAFWA & MAFWA Feral Swine Groups (Kevin Lowrey/Terri Brunjes)
- 4:45 Next steps and Wrap-up Discussion (G. Anderson/J. LaCour)
- 5:15 Adjourn



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Minutes

3:15 PM Call to Order/Review Agenda (G. Anderson/J. LaCour)

- Chairman Anderson called the meeting to order

3:20 Introductions

- In lieu of introductions, participants were asked to provide their name and email address in the zoom chat

3:30 Work Plan (G. Anderson)

- Chairman Anderson discussed the following previously agreed upon work plan
- 1) Encourage uniform policies that prohibit the interstate movement of feral swine and translocation of feral swine.
- 2) Promote and encourage research for economical, efficacious control methods and related public perceptions including the cultural and social dynamics of feral swine hunting.
- 3) Develop management plans for feral swine population eradication or reduction based on sound scientific and ground-proven methods.
- 4) Discuss the role of federal entities in the control of feral swine in North America.
- 5) Encourage partnerships between states and between state and federal entities to unify the battle against the spread of feral swine.
- 6) Inform the AFWA Directors of the actions of the FSWG and act on any directives given to the FSWG by the Directors.

4:00 National Feral Swine Damage Management Program update (Michael Marlow)

- On his retirement from USDA-APHIS-WS as the Program Manager of the National Feral Swine Damage Management Program, the AFWA Feral Swine Working Group would like to acknowledge the great work of **Dr. Dale Nolte**. Dr. Nolte was an integral part of this working group and we appreciate his many contributions. We look forward to continuing to work with the program.
- Acting National Feral Swine Damage Management Program Manager Michael Marlow provided the following report



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Update on Operational Program as we continue our goal to reduce damage and risk to agriculture, natural resources, property, animal health, and human health and safety in the United States by reducing or eliminating feral swine populations

In FY 21, the NFSP provided feral swine damage management resources to thirty-seven state programs, three territories, and continued population reduction activities on the thirty-four Farm Bill projects in twelve states (AL, AR, FL, GA, HI, LA, MS, MO, NC, OK, SC, and TX)

Since the 2014 beginning of the National Program WS recognizes

- 5 state eliminations
Idaho, New York, Maryland, New Jersey, Maine
- 6 states in detection status

(States with no known feral swine following “recent” successful elimination efforts. Funding to support monitoring efforts continues for 2 additional years)

Washington, Colorado, Minnesota, Wisconsin, Iowa, Vermont

- 17 States transitioned to a lower level (Level 5 high populations, 1 low)
ID, CO, HI, NM, OR, WA (Western Region)
IA, KY, MD, ME, MI, MN, NJ, NY, WI, VA, VT (Eastern Region)

* Each state is classified by level representing estimated numbers of feral swine

- Representing success in removing feral swine in the state, Indiana will move from a Level 2 to a Level 1 status beginning in FY22
- The WS Feral Swine Steering Committee held its annual meeting this week. AFWA has two participating members on this committee. Primary discussion focused on Local Project funding priorities, discussion on recent Policy and Program Development, Program Assessment and Accountability Review, and future funding considerations.

Update on National Feral Swine Disease Surveillance

- NFSP/NWDP implemented a new surveillance approach in FY 21, prioritizing counties across the U.S. to account for the risk of foreign animal disease introductions
- On track to collect the targeted 6,000 samples in FY21
- This surveillance plan is in line with discussions of the 2020 Feral Swine Disease Technical Working Group meeting held in Fort Collins, CO
- It is planned for this forum to reconvene in early 2022

Update on Toxicant Research (NWRC)

- WS submitted a report on the three Sodium Nitrite toxicant field studies conducted in FY20 to the EPA
- Based on this report, the EPA issued WS an Experimental Use Permit allowing further study required to gather the data EPA needs to consider registering the SN toxicant
- WS initiated these studies and as of Sept 1st, the field aspects of the TX and Alabama studies have been completed.
- Results will now be analyzed and written up for submission to EPA for their consideration

4:15 Report from the National Wild Pig Task Force (G. Anderson)



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National Wild Pig Task Force Report

- Updated research articles on website
- Still having website visitors perusing presentations from the 2020 International Wild Pig Conference.
- 2022 International Wild Pig Conference
- April 17-21 Sheraton Music City Hotel in Nashville, TN
- Chair-elect John Tomecek will present at the 18th Annual National Assembly of Sportsmen's Caucuses Sportsman-Legislator Summit
- December 8-11, 2021 in Little Rock, AR

4:30 Report from the SEAFWA & MAFWA Feral Swine Groups (Kevin Lowrey/Terri Brunjes)

Terri Brunjes, Chair of the MAFWA Feral Swine Committee gave the following joint report

SEAFWA/MAFWA AFWA REPORT
JOINT SEAFWA/MAFWA TOPICS
Bear Resistant Product Testing-Kevin
SEAFWA/MAFWA Joint Meeting
WMI Proposal
Research Summaries by Justin Foster
Networking
AFWA FSWG Assistance

MAFWA/SEAFWA JOINT MEETING

Meeting Time and Place: The annual meeting of the MAFWA Feral Swine Committee (MFSC) was held jointly with the Southeast Association of Fish and Wildlife Agencies (SEAFWA) Wild Hog Working Group at the 2021 Animal Damage Management Conference via Teams virtual platform. The MAFWA and SEAFWA group chairs will seek a joint meeting at the 2022 International Wild Pig Conference, which will be held in Nashville, TN, in April.

RESEARCH UPDATE: AFWA representative Justin Foster of Texas- shared several research studies of interest:

-Field Evaluation of Hoggone Sodium Nitrite Bait for Feral Swine- Texas and Alabama Research led by NWRC. First experiment killed 171 passerines. Specific bird deterrents were implemented. Second experiment experienced 0 non-target kills, 140 wild pigs killed in one night.

-Effects of Cottonseed meal on semen motility in domestic boars- this was a Master's Thesis by Johnathan Baker. Basically, with 60% inclusion of Cottonseed meal (CSM) in the total diet in a 10 week feeding trial, there was a significant reduction in semen motility in CSM-treated boars.



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Justin also shared information on research conducted by USDA in which mice were inoculated with CWD positive tissue. Although mice died of atypical nerve diseases, they did not become CWD positive. This information was based on a discussion with USDA researchers. There is no report on this to date.

GRANT PROPOSAL: The Wildlife Management Institute sought support for a grant proposal titled: Development of Consistent Policy and Law to Prevent Translocation of Feral Swine. The total funding requested was \$111,775. Funding Source: Wildlife Restoration Funds (Traditional) - 100%

A summary of the Proposal: The project team will research the policies, regulations, and statutes of all 50 states and adjacent Canadian provinces regarding the transport and translocation of feral swine. The data will be analyzed to identify both the effectiveness of policies and regulations as well as inconsistencies, data gaps, and trends that hamper the ability of agencies to effectively control the spread of feral swine. The team will develop recommendations for revisions to policy or statutes to increase consistency and improve desired outcomes.

MAFWA/SEAFWA VOTE AND COMMENTS

After much discussion, both MAFWA Feral Swine Committee and SEAFWA Wild Hog Working Group voted to support this proposal. We did receive comments from some members voicing concerns.

Comments include:

- A similar survey had been conducted in Midwest and Northeast states, as well as a few Canadian provinces, in 2017, which was published in *Invasive Wild Pigs in NA* (VerCauteren et al. 2020) located in the chapter titled *Wild Pigs in NE North America*.
- There was a question as to whether this compilation and assessment of data will affect changes at the state level either via policy or statutory changes, since individual states operate under different conditions and political pressure.
- There was a request to use the \$111k towards removing incentives to import and release wild pigs through promoting state prohibition on wild pig hunting.
- Additional comments suggest putting the focus on creating federal legislation, instead of affecting change in state laws. State laws are often ineffective and prone to influence by politics. Furthermore state regulations are often so weak that prosecutions don't happen. To further complicate things, without prosecutions and attention to these issues, state regulations are often not changed.
- And the last comment states: Even if the initiative shows a state's regs are ineffective and recommendations for changes are made via the final product, will these recommendations be enough to overcome the politics in states?

MAFWA Annual Report- MAFWA Feral Swine Committee annual report was presented to the 87th MAFWA Annual Directors meeting in June. It included Individual state reports. Several states are experiencing declines in pig numbers. Indiana has shifted into Detection Phase and believes they have fully eradicated pigs. Kentucky was reduced from a Level 3 to a Level 2 with the National Feral Swine Damage Management Program and Missouri has strategically increased removal efforts in high density areas.

New MAFWA Feral Swine Committee Members



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Dan Skinner is the new MAFWA representative for Illinois.

Bree Walpole is the new MAFWA representative for Ontario.

Terri Brunjes replaced Steve Backs as Chair of the MAFWA Feral Swine Committee. Steve resigned after serving 6 years in anticipation of his future retirement.

MAFWA RESEARCH PRIORITIES

MAFWA Feral Swine Committee members were tasked with developing science-based management priorities by the AFWA Science and Research Committee. Priority topics include wildlife health, weather and temperature related concerns, Invasive Species, Emerging Technologies, Inter-jurisdictional Cooperation, and Human Dimensions. I'll spare you the full list. If anyone would like more information, I will be happy to email it to you.

Wildlife Health

- a. Disease transmission between feral swine and both native wildlife and livestock
- b. Chronic Wasting Disease (CWD) -interspecies CWD infection: risks of feral swine contracting and spreading CWD
- c. African Swine Fever
- d. Pseudorabies
- e. Swine Brucellosis

Weather and Temperature-related Concerns

- a. Indirect and direct effects of climate change on feral swine populations

Invasive Species

- a. Feral Swine

Emerging Technologies

- a. Approval and use of feral swine toxicants and feeders
- b. Improved trap technology
- c. Accurate techniques to determine feral swine densities
- d. Development of bait that attracts pigs without attracting non-target species, such as white-tailed deer and turkey, whose baiting seasons often curtail wild pig trapping efforts.

Inter-jurisdictional Cooperation

- a. Collaborative nation-wide plan for feral swine eradication

Human Dimensions

- a. Solutions to counter the release of unwanted pot-bellied pigs
- b. Effectively communicate to sport hunting industry the negative effects of hunting feral swine
- c. Solutions to eradicate feral swine in pig refuges where private landowners prohibit removal.

SHARING/NETWORKING

One of the primary functions of MAFWA and SEAFWA working groups is acting as an information and exchange network among states and provinces. A few of the topics of interest shared among members this year are:

Bree Walpole (MAFWA) - shared Ontario's Draft Strategy to Address the Threat of Invasive Wild Pigs.

Ontario's plan mainly focused on preventing the establishment of wild pigs. In addition,



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the mgmt. plan calls for phasing out the possession of Eurasian boar in captivity, removing wild pigs via trained professionals using proven scientific methods, and collaborating across ministries, federal agencies, other jurisdictions, and industry stakeholders.

Ryan Farney (MAFWA) of Arkansas shared their agency's Feral Hog reporting app created in Survey 123.

The App called AgfcMobile, which stands for Arkansas Game and Fish Commission, allows both public and staff to report pig removal and sightings.

Jason Allen (SEAFWA) started a conversation asking for guidance in establishment of a trap loan program for landowners experiencing pig damage in North Carolina. This gave states the opportunity to exchange ideas and information. Kentucky previously had a trap cost-share program prior to the creation of remote-operated traps. We found that private landowners did not have the time nor resources to adequately trap wild pigs. This program ended up creating many trap-shy pigs. I know other states have more of a need for this program than KY. Kentucky only has a few scattered populations that can be handled by Wildlife Services. There was definitely a need for training and education.

TOPICS THAT NEED AFWA SUPPORT OR FURTHER DISCUSSION

Lastly, I reached out to members for their input per AFWA FSWG's offer to assist in our efforts. I received several comments.

1. Since AFWA has a congressional presence, are there additional actions that can be taken to make advancements in reducing wild pig numbers, instead of just "holding the line". In other words, is there anything more that can be done to assist states in moving from control to eradication?
2. There is a need to enhance efforts to educate the hunting industry on the negative effects of pigs and pig hunting
3. The resistance and lack of cooperation by some landowners continues to be an obstacle to eliminating wild pigs. Some of these uncooperative landowners are also recipients of State and Federal incentives for conservation practices or easements, such as WRP, CRP, or EQIP. There is a need to require these landowners that receive government payments to allow wild pig removal on properties under government contract. Without landowner cooperation, one MAFWA member recommends renaming WRPs, which stand for the Wetland Reserve Program to WPRs or Wild Pig Refuges.
4. Need for AFWA support, either white paper or political presence, etc., for state agencies experiencing political pressure to perpetuate wild pig hunting, including hunting within high fence operations.

4:45 **Next steps and Wrap-up Discussion (G. Anderson/J. LaCour)**

Vice Chair of the working group, Jim LaCour, provided the following report on various issues related to feral swine damage management

- **Toxicants**
 - USDA Sodium nitrite bait Hoggone-2® in final tests now



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- Up to 90+% efficacy first night after pre-baiting
- Non-target bird issues overcome with a reduced sodium nitrite concentration and “wavy-man” bird dissuaders
- Will need food safety review prior to EPA registration
- EPA registration could take up to 2 years once all information submitted
- LSU AgCenter sodium nitrite bait and dispenser
 - Patent applied for on dispenser that drops fish-meal-based sodium nitrite baits in front of feral swine by remote human trigger as a way to reduce non-target ingestion
 - Effective in a confinement setting
 - Has not been evaluated on free-ranging feral swine yet
 - Gathering info for EPA application
- Wild Pig Feeder has developed a system to release sodium nitrite solution and malic acid simultaneously onto feed as triggered by feral swine
 - Some confusion exists in EPA registration requirements for the product according to WPF representatives
- New contraceptive hog bait manufactured and produced in Texas.
 - TDA indicates EPA considers HogStop® by Hi-Pro Feeds as an FIFRA 25 (b) pesticide (Minimum Risk Pesticide)
 - Active ingredient cottonseed oil
 - Gossypol is a derivative of the cotton plant
 - Cottonseed oil is eligible as an active ingredient for exemption
 - Use of feeders suggested but not required on label
 - Gossypol can be toxic to some species and can cause male sterility in other non-target species
 - Male infertility is not permanent and feed must be consumed regularly for long-term male infertility
- Proposed Legislation in TX which could revise previous legislation:
 - Allows for implementation of an experimental use program of pesticide products containing warfarin (for controlling feral hogs)
 - Appropriates funding for said experimental use program
 - Directs Texas A&M AgriLife Extension to cooperate with the “Department of Agriculture” in implementation of the program
- **Disease**
 - African Swine Fever found in the Dominican Republic
 - First time in the western hemisphere
 - If found in North America will have dire financial impacts to the domestic swine industry
 - Easily transmitted by infected animals, ectoparasites, fomites, undercooked infected pork food products and garbage
 - Increased surveillance by USDA WS and state biologists for unexplained feral swine mortalities
 - Chronic Wasting Disease (CWD) swine research
 - Moore (2017)



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- Intracranial inoculation of domestic pigs: 4/20 were positive and developed brain lesions.
 - 1 had clinical neurologic signs
- Oral inoculation: 1/19 were positive and developed brain lesions
- Brown (2019) USDA
 - Free-ranging feral swine in a CWD-endemic region
 - 2/102 samples were positive for CWD and had brain lesions as well as prions in lymph nodes
 - Research continues.....
- SARS CoV-2/ COVID 19
 - Pigs do possess the ACE-2 receptors in the lungs necessary for SARS CoV-2 virus invasion
 - Early studies showed pigs to be resistant to SARS Cov-2
 - Pickering (2021)
 - 16 domestic pigs inoculated via oronasal route
 - Only 1 developed mild transient clinical signs
 - 1/16 had mild viral shedding
 - 2/16 had SARS CoV-2 antibodies
 - Indicates that pigs are somewhat susceptible to SARS CoV-2 and are capable of shedding virus at least at low levels.
 - More research underway
- **Technology**
 - Pig Brig® feral swine trap
 - Easily transported net trap
 - Reports of good success with this trap from field personnel
 -
- **Botstiber Institute for Wildlife Fertility Control**
 - 3-part webinar “Mitigating Wild Boar Conflict Around the World: The Potential for Using Fertility Control”
 - June 10, 17, and 24, 2021
 - 9th International Conference on Wildlife Fertility Control
 - May 23-25, 2022
 - Cheyenne Mountain Resort, Colorado Springs, CO

5:15

Adjourn

Chairman Anderson adjourned the meeting