



# Evaluation Data Report

## Feral Swine and Pseudo-rabies Working Group

### Meeting Three: August 10-12, 2010

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# Feral Swine/Pseudo-rabies Working Group Evaluation Data Report

## Background

NIMBioS Working Groups are chosen to focus on major scientific questions at the interface between biology and mathematics. NIMBioS is particularly interested in questions that integrate diverse fields, require synthesis at multiple scales, and/or make use of or require development of new mathematical/computational approaches. NIMBioS Working Groups are relatively small (10-12 participants, with a maximum of 15), focus on a well-defined topic, and have well-defined goals and metrics of success. Working Groups will typically meet 2-3 times over a two-year period, with each meeting lasting 3-5 days; however, the number of participants, number of meetings, and duration of each meeting is flexible, depending on the needs and goals of the group.

The first meeting of the Feral Swine Working Group brought together a diverse group of researchers to model the feral hog population of the Smoky Mountains National Park (GSMNP), to investigate potential methods for predicting the spread of feral hogs in the southeastern United States, and to review the general principles of mathematical modeling and management of emerging diseases in feral species.

During the first meeting, the Working Group discussed recent data on feral swine populations in the GSMNP, and utilized the National Feral Swine Mapping system to chart the growing distribution of feral hogs across the United States. Several tasks were assigned to subgroups, including initiating modeling of the feral hog population in the GSMNP, investigating prospects for predicting the spread of feral hogs in the southeastern United States, and reviewing the general principles of modeling and management of emerging diseases in feral species.

The second meeting of the Feral Swine Working Group began with an update on control efforts and disease surveillance of hogs in the GSMNP from the past year. The group discussed the development and availability of geospatial datasets for the GSMNP, and a preliminary spatial model for population dynamics and movement of hogs within and adjacent to the park. Progress on nationwide mapping of feral hogs was reviewed, and the University of Georgia is developing a “cyber infrastructure” proposal for mapping and analyzing multiple invasive species, the feral hog component of which will be contributed to by the Working Group as a whole.

The goals of the Working Group were reviewed and revised into more specific tasks, which included constructing a non-spatial age-structured model representing the transmission of pseudo-rabies in a generic feral hog population, creating a model that incorporates seasonal movement of hogs in the GSMNP, adapting an existing Individual Based Movement (IBM) bear model so it can be applied to hogs, developing a spatial/GIS model aimed at predicting hog distribution over Arkansas/Missouri and North Carolina/South Carolina, and writing a review

article on the role of modeling in developing strategies for management of disease in feral hogs. No summary is available from the third meeting of the Working Group.

## Evaluation Design

### *Evaluation Questions*

The evaluation of the meeting was both formative and summative in nature, in that the data collected from participants was intended to both gain feedback from participants about the quality of the current meeting and also to inform future meetings. The evaluation framework was guided by Kirkpatrick's Four Levels of Evaluation model for training and learning programs (Kirkpatrick, 1994<sup>1</sup>). Several questions constituted the foundation for the evaluation:

1. Were participants satisfied with the Working Group overall?
2. How do participants feel about the format of the meetings?
3. How do participants feel about the content of the meetings?
4. Do participants feel they have a good understanding about the work being done by other subgroups within the group?
5. Do participants feel they gained a better understanding of how the work of the various subgroups will tie together to reach the Working Group's goals?
6. How do the research collaborations happening in this working group differ from participants' other research collaborations?
7. How do participants communicate between meetings?
8. Do participants feel they have a good idea of what their continuing contribution will be within the group?

### *Evaluation Procedures*

The final instrument was hosted online via the University of Tennessee's online survey host mIntervue. Links to the survey were sent to seven Working Group participants on August 18, 2010. Reminder emails were sent to non-responding participants on August 24 and 31, 2010. By September 7, 2010, five participants had given their feedback, for a response rate of 71%.

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<sup>1</sup> From Kirkpatrick, D.L. (1994). *Evaluating Training Programs: The Four Levels*. San Francisco, CA: Berrett-Koehler.

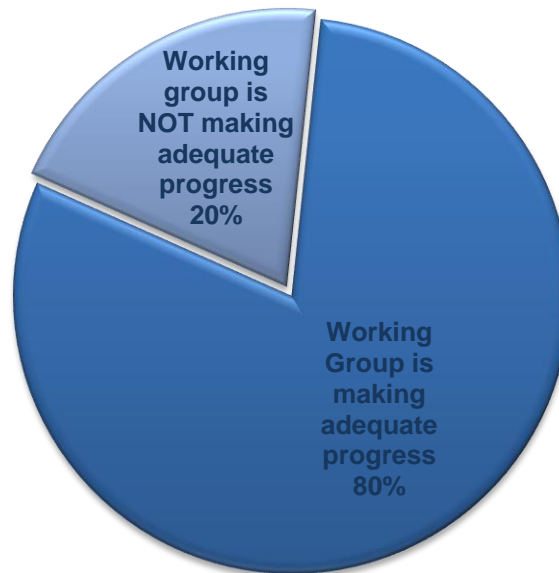
## Evaluation Data

### Respondent Satisfaction

**Table 1. Respondent satisfaction with content and format of the working group**

	Very satisfied	Satisfied	Neutral	Dissatisfied	Strongly dissatisfied
The amount of effort spent on working group activities	60%	40%	-	-	-
The adherence of meetings to schedules	60%	40%	-	-	-
Utilization of time during meetings	20%	60%	20%	-	-
Organization of the meetings	20%	80%	-	-	-
The diversity of disciplinary expertise of the participants	60%	40%	-	-	-
The level of task productivity of participants	-	60%	40%	-	-
The quality of participant ideas and discussions	20%	80%	-	-	-
Overall satisfaction level with the working group	40%	60%	-	-	-

**Figure 1. Respondent views of group progress**



***Participant comments about progress toward goals:***

*“But the progress is very slow, and interaction between members outside of the meetings in TN is limited.”*

*“We are probably six months behind, but in fairness, this is a hard problem.”*

## Understanding of Group Function

**Table 2. Respondent understanding of group function**

*As a result of participating in this meeting, I have a better understanding of:*

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
The work being accomplished by the other subgroups within the Working Group	40%	60%	-	-	-
How the work of the various subgroups will tie together for the working group's publication(s) and/or product(s)	40%	60%	-	-	-

**Figure 2. Respondent understanding of what is expected of them before the next meeting**



## Uniqueness of Working Group Collaborations

**Table 3. Ways in which working group research collaborations differ from participants' other collaborations\***

	Very different	Slightly different	Not different
Disciplinary topics involved	20%	20%	-
Research methods used	-	40%	-
Scientific questions addressed	-	20%	20%
Academic conferences at which research is presented	-	-	20%
Competitive grants applied for	20%	-	-
Journals targeted for publication	20%	-	-
Academic conferences at which research is presented	-	-	-

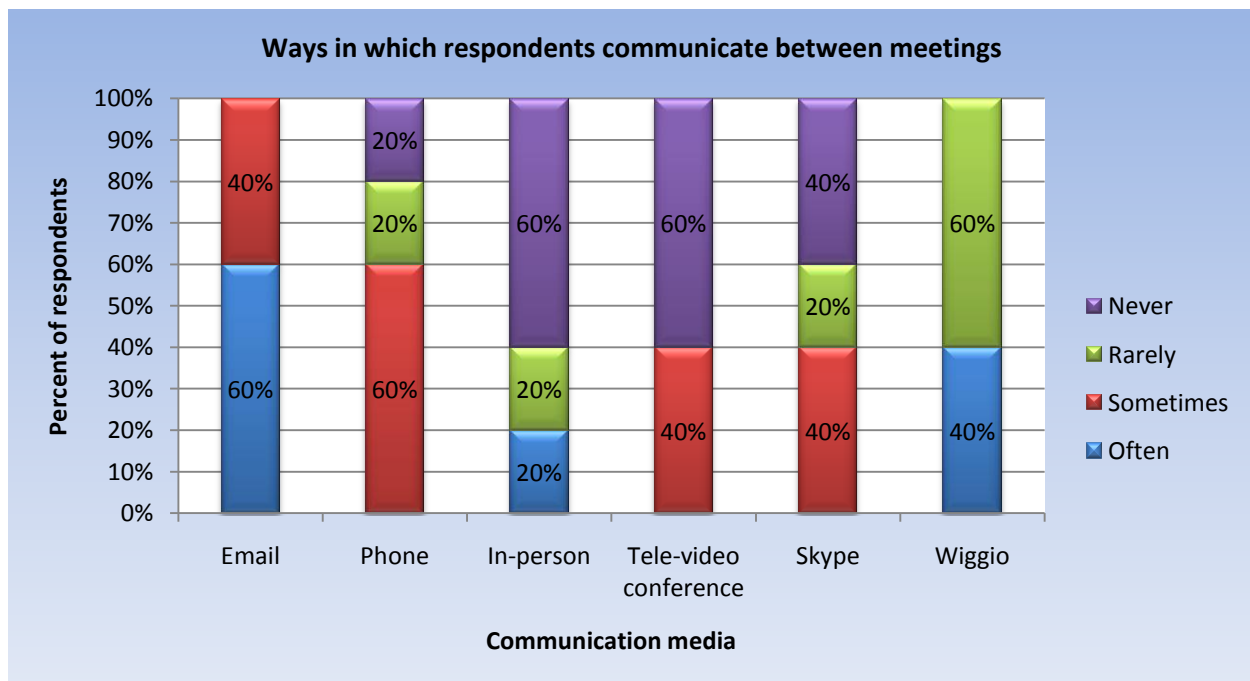
\* The survey software apparently malfunctioned on this question for this working group, so complete responses from all participants were not recorded. Percents shown are the percent of the total respondents taking the survey answering a specific question.

### *Participant comments:*

*"Page not working, will not allow multiple answers."*

## Respondent Communication

**Figure 3. Ways respondents communicate**





## **Additional Comments about Working Group**

No comments were provided by survey respondents.

# Appendix

## List of Participants

## Participants

Last name	First name	Institution
Collins	Charles	University of Tennessee Knoxville
Corn	Joseph	University of Georgia Athens
*Hickling	Graham	University of Tennessee Knoxville
Kasari	Ellen	United States Department of Agriculture
*Lenhart	Suzanne	University of Tennessee Knoxville
McCallum	Hamish	Griffith University
Salinas	Rene	Appalachian State University
Schmit	Brandon	United States Department of Agriculture
VerCauteren	Kurt	United States Department of Agriculture

\* **Organizer**