

Wild Pigs on the SRS: A Testbed for National-Scale Research and Management

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GEORGIA

Savannah River Ecology Laboratory

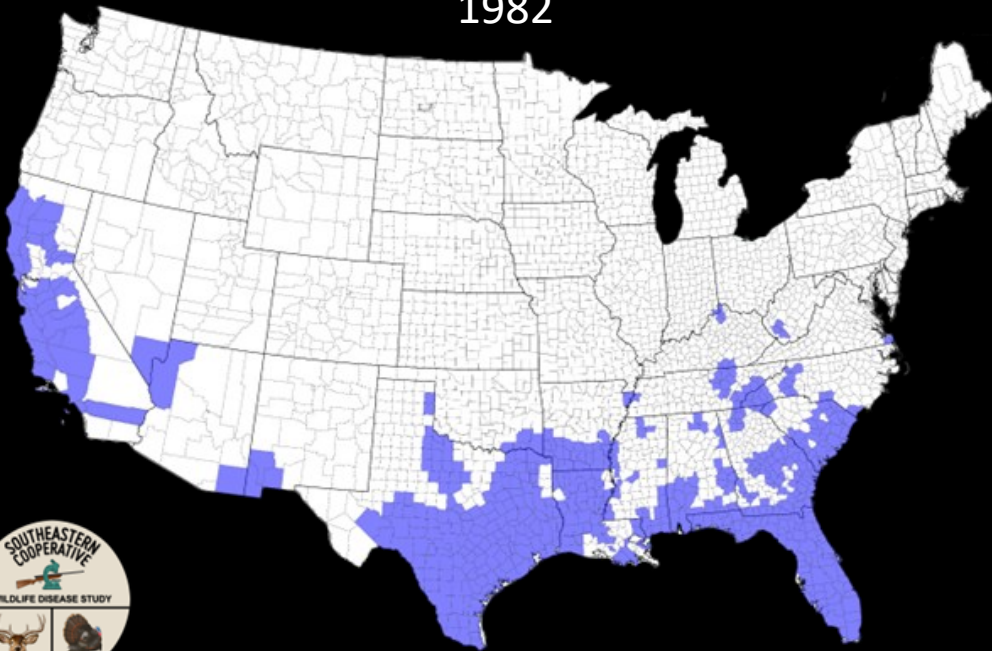
Warnell School of Forestry & Natural Resources



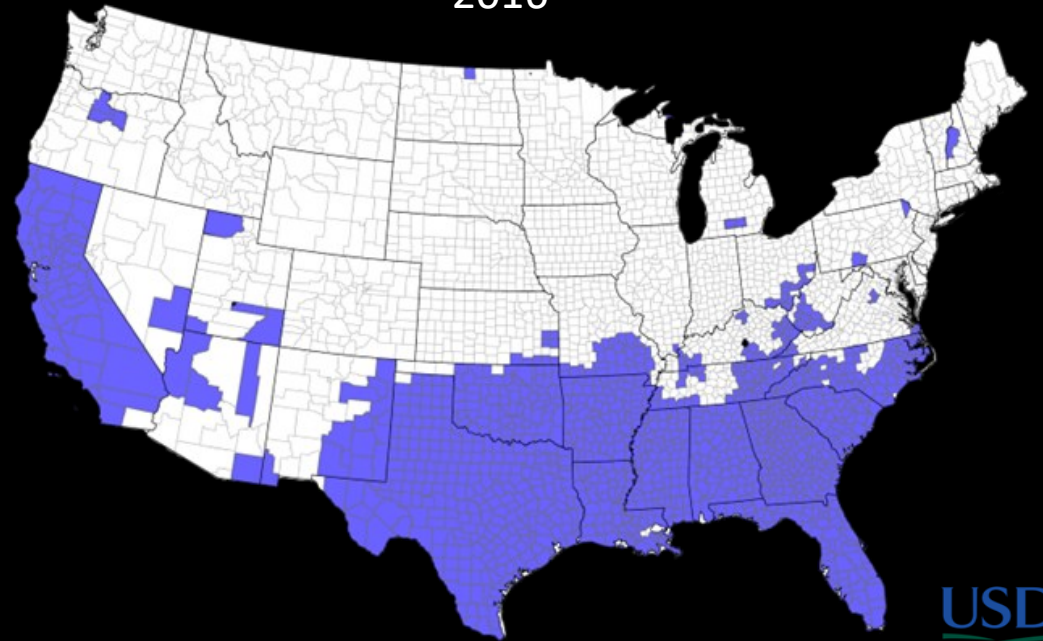
Wild Pig Population Expansion

- Present in the U.S. since the 1500's
- Rapid shift in population size and distribution beginning in 1990s
- Populations now entrenched (most southeastern counties)

1982



2016



Scope of Impacts

Economic



Ecological



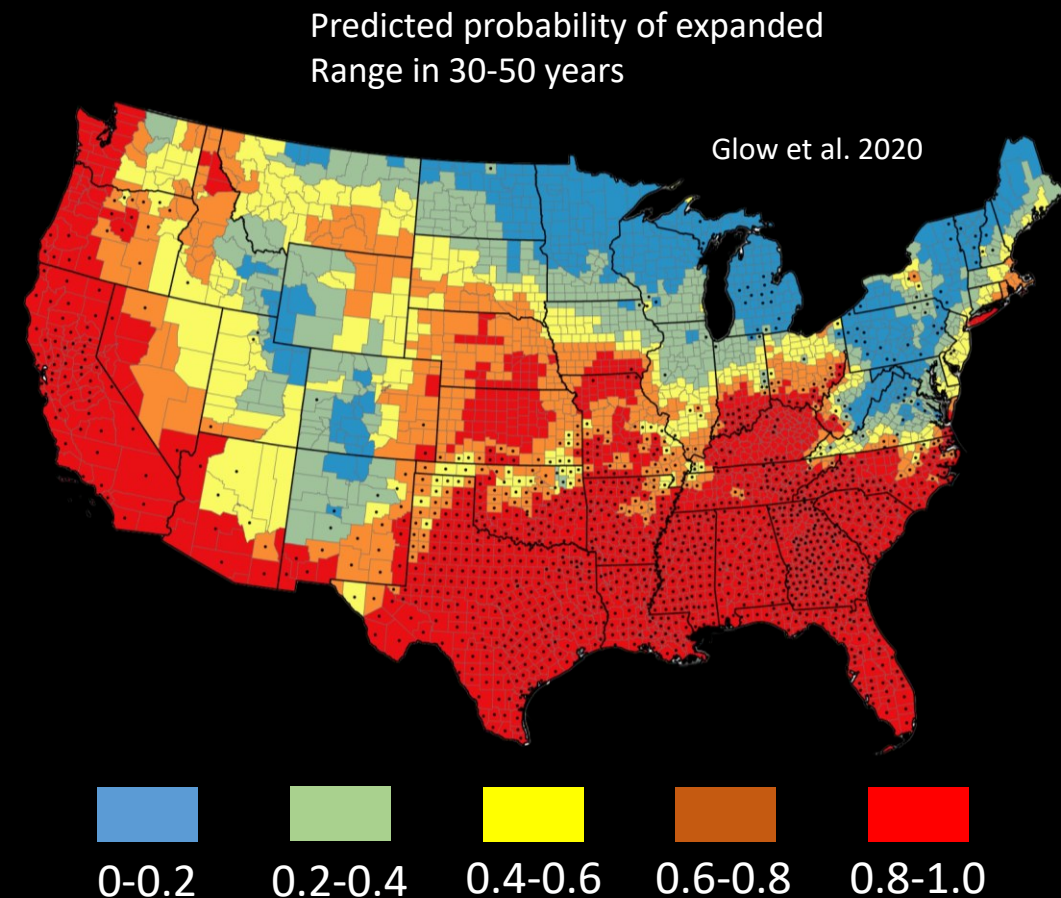
National-Level Management

- More aggressive action beginning in 2010's
- National Feral Swine Damage Management Program
 - Successful elimination from several US states
- Eradication success stories from islands
 - California Channel Islands
 - Jehossee Island South Carolina
 - St. Vincent Island Florida
 - Several northern states



Challenges – Extreme Generalists

- Most abundant and widespread large invasive vertebrate in U.S.
 - Ecological generalists
 - Few effective predators



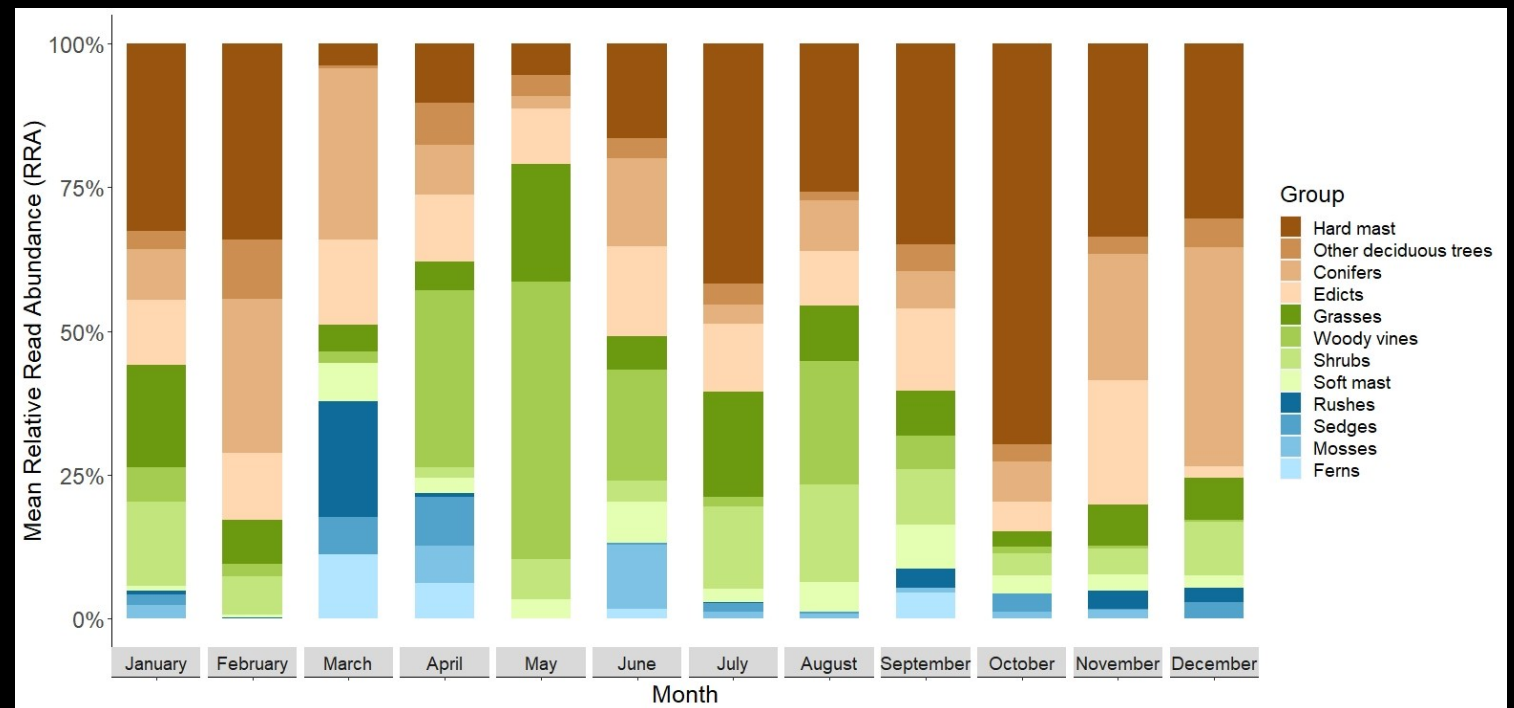
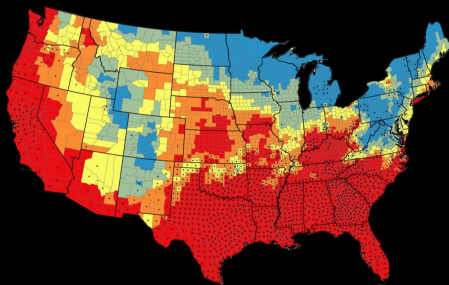
Challenges – Extreme Generalists

- Most abundant and widespread large invasive vertebrate in U.S.



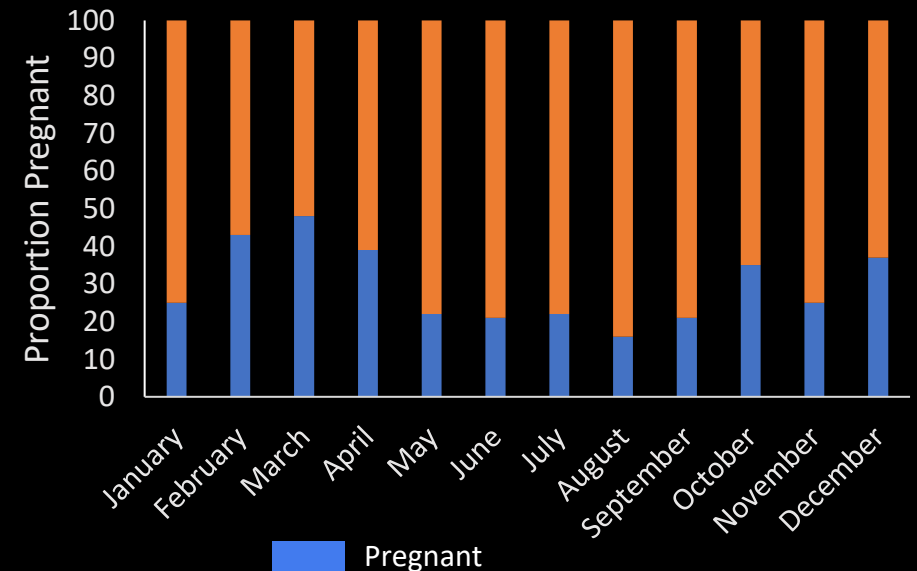
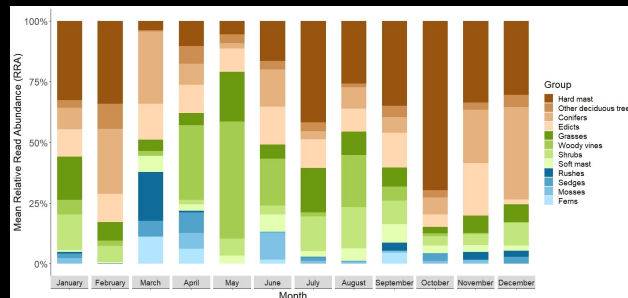
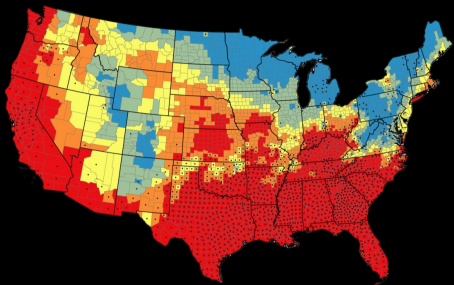
184 genera, 56 families

- Ecological generalists
- Few effective predators
- Plastic diets



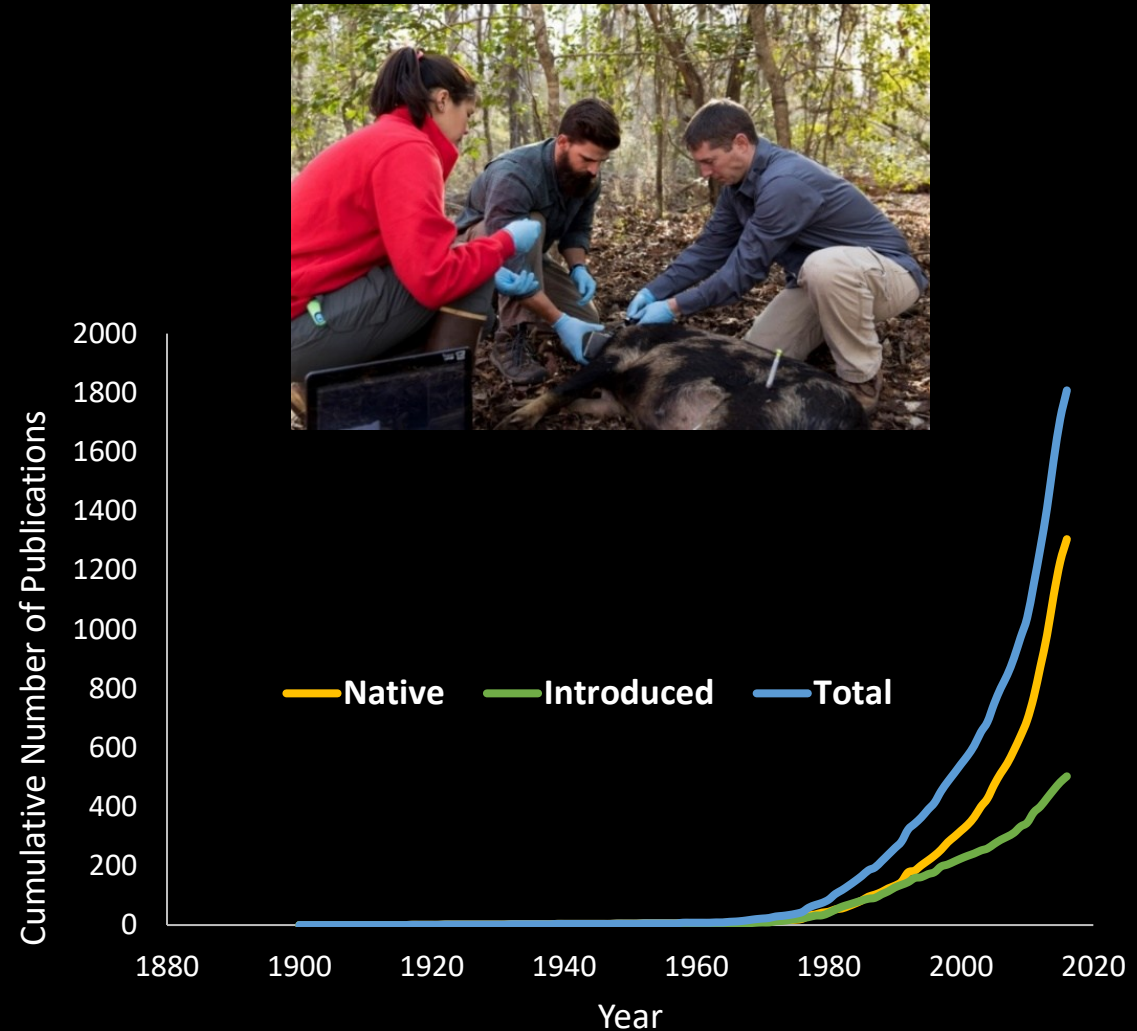
Challenges – Extreme Generalists

- Most abundant and widespread large invasive vertebrate in U.S.
 - Ecological generalists
 - Few effective predators
 - Plastic diets
 - High reproductive potential



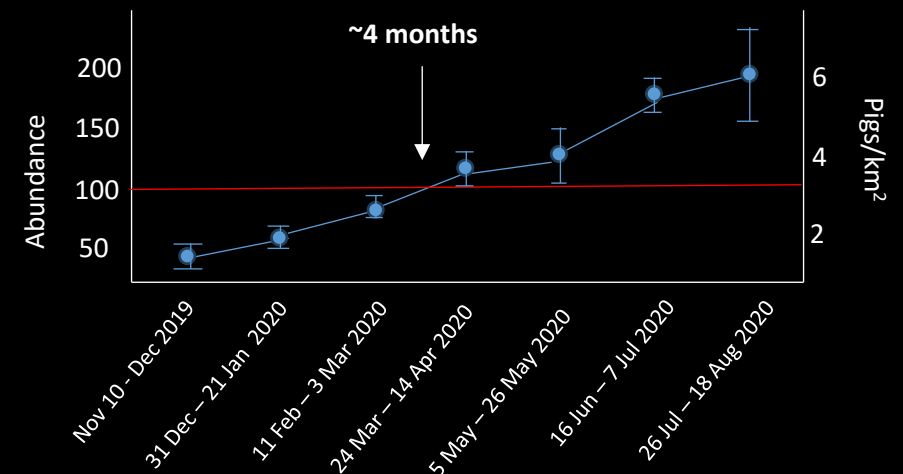
Challenges – Limited Research

- Surprisingly understudied species
 - Emphasis on removal
 - Experimental design and data collection are often afterthoughts
 - Funding for research not prioritized
 - Ecological impacts understudied



Challenges – Population Control Strategies

- Most management is reactive and temporary
- Must remove 40-75% of the population annually to stabilize or reduce numbers
- How do we measure success?
 - Often focused on number of animals removed
- How effective are removal efforts at:
 - Reducing pig populations? Damages?
 - Long term efficacy?



Re-Thinking Wild Pig Control

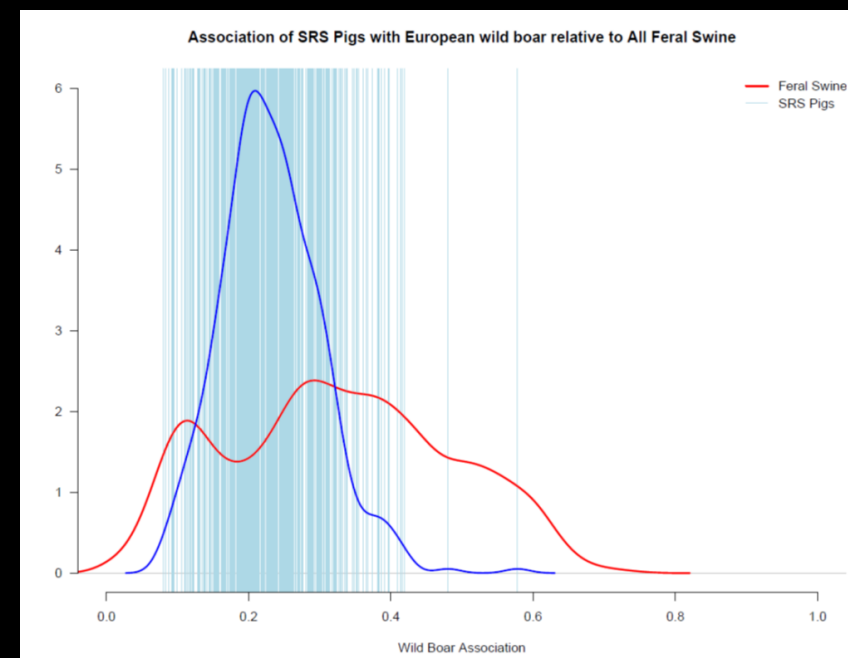


***Science-Driven
Adaptive Mgt***



Wild Pigs on the SRS

- Present prior to the establishment of SRS
 - Supplemented by free ranging pigs after SRS establishment in early 1950's (river swamp)
 - Additional population identified in 1970's in northern portion of the SRS
 - Immigration from released wild boar hybrids from neighboring properties



Testbed for National Research

- One of the best studied populations in North America
- Wild pig research on SRS dating back to the 1960's
- Unique case study for long-term research
 - Thousands of samples and data spanning nearly all aspects of wild pig ecology
- Largest academic research program in the U.S. focused on wild pigs
 - Consistent funding from APHIS, USFWS, USFS, NRCS, NWRC



Current and Recent Projects

Evaluation and optimization of trap performance

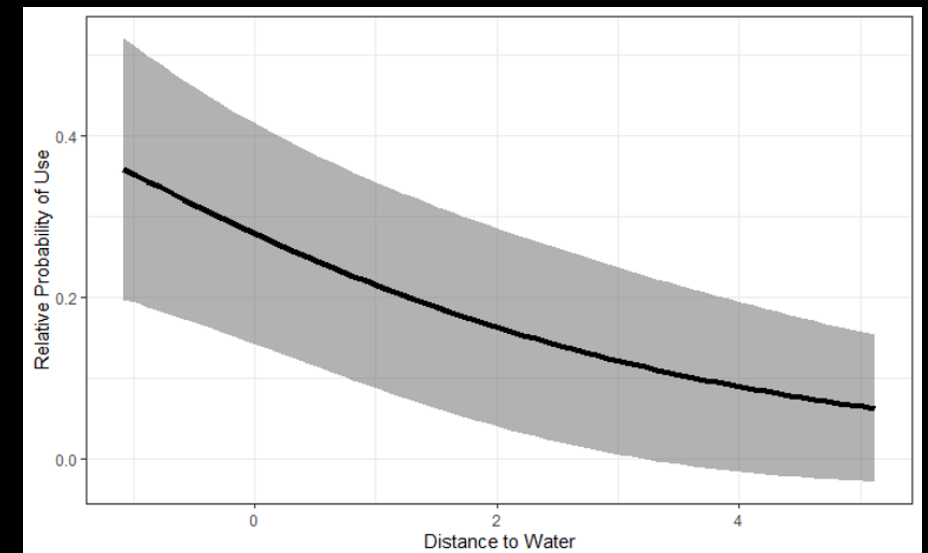
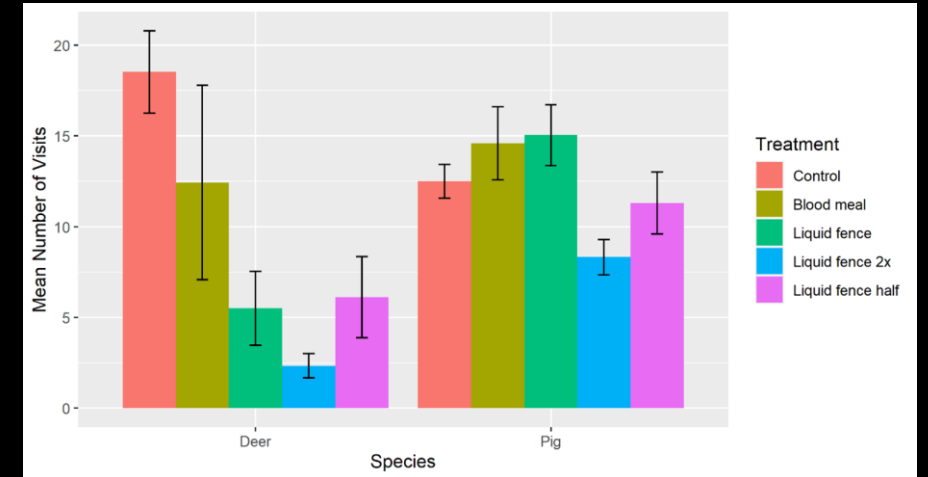


Current and Recent Projects



Trap performance

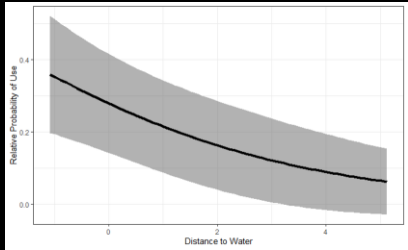
Optimization of baits and lures



Current and Recent Projects

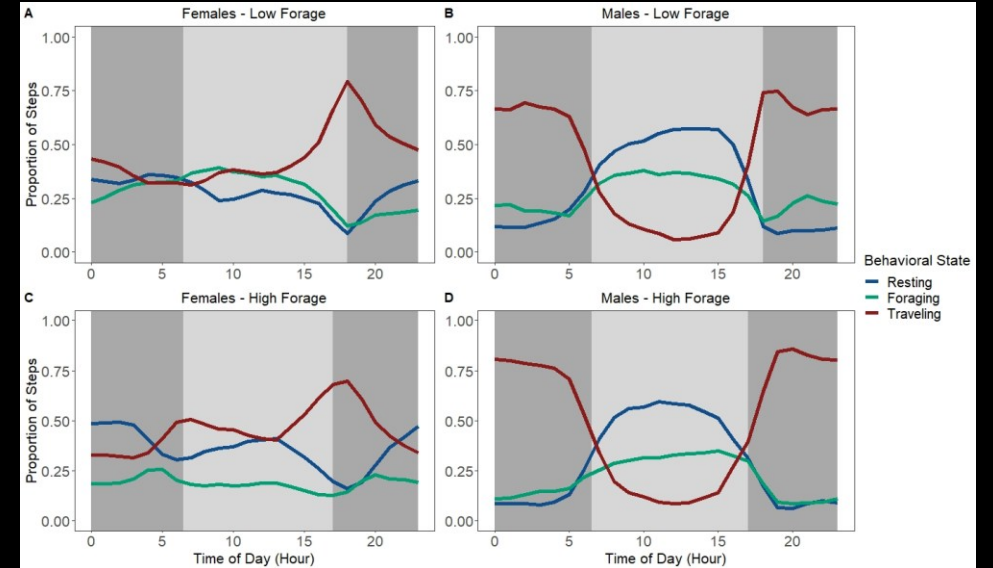
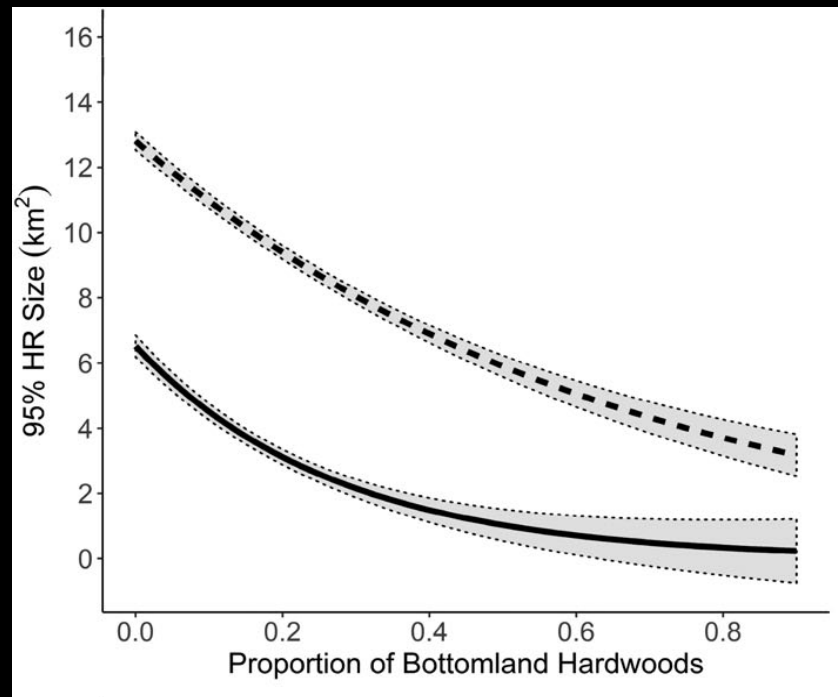


Trap performance



Baits and lures

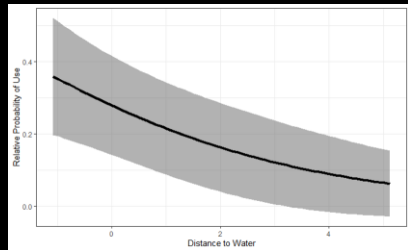
Movement Ecology



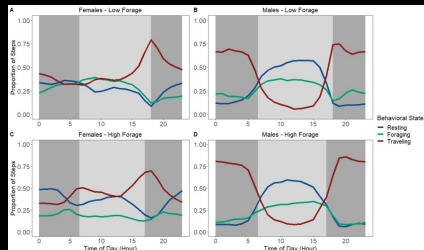
Current and Recent Projects



Trap performance



Baits and lures



Movement Ecology

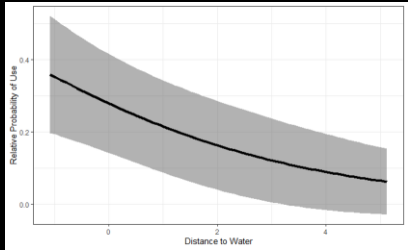
Drivers of Population Dynamics



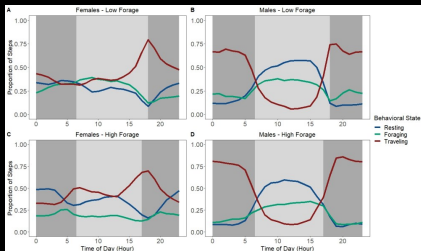
Current and Recent Projects



Trap performance

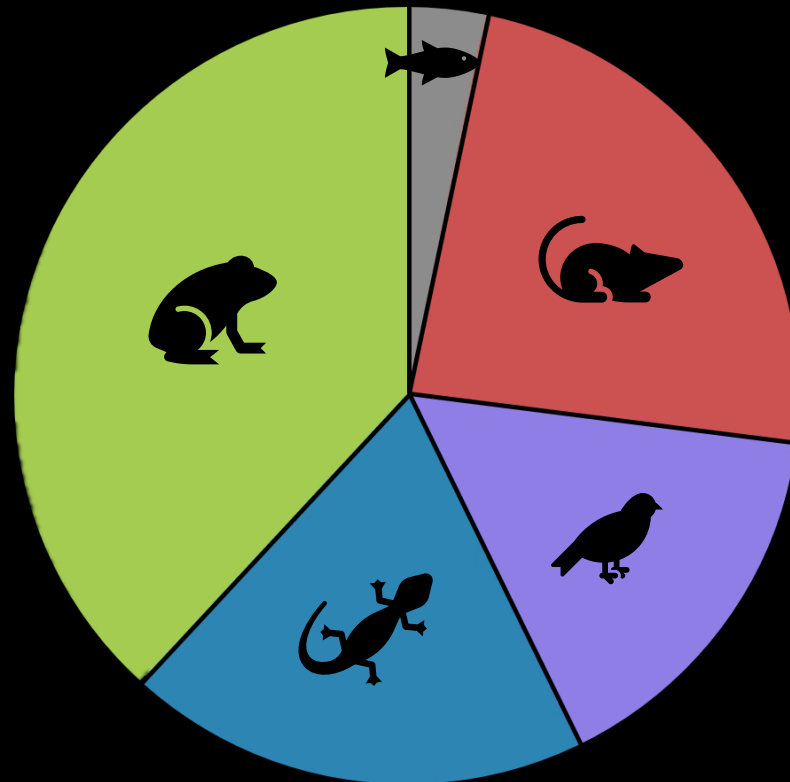


Baits and lures



Movement Ecology

Ecological Impacts



Population Dynamics

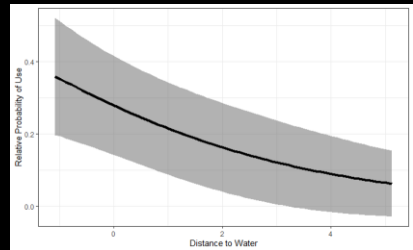


Current and Recent Projects

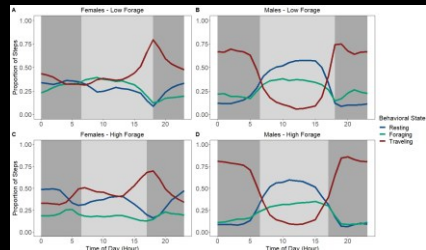
Human Health and Safety



Trap performance



Baits and lures



Movement Ecology



Population Dynamics



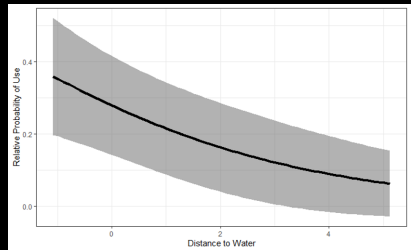
Ecological Impacts

Current and Recent Projects

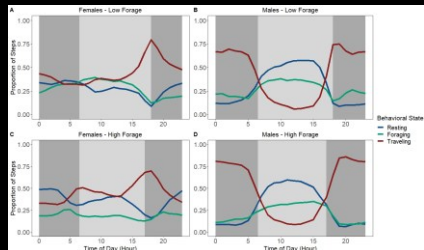
Optimizing Aerial Removal Strategies



Trap performance



Baits and lures



Movement Ecology



Population Dynamics



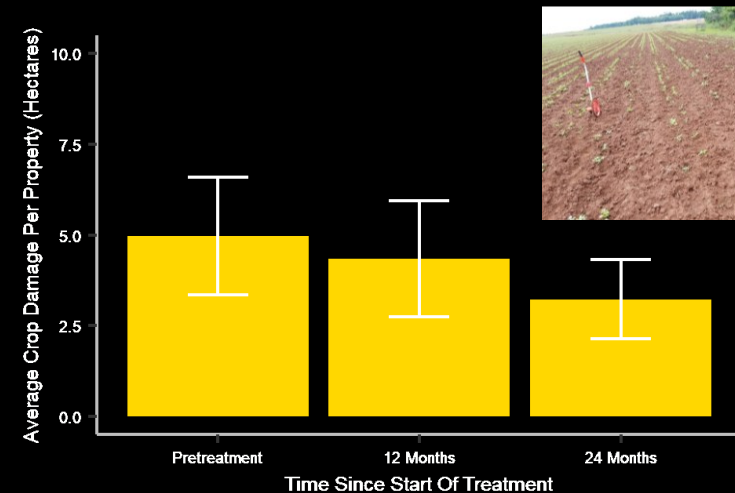
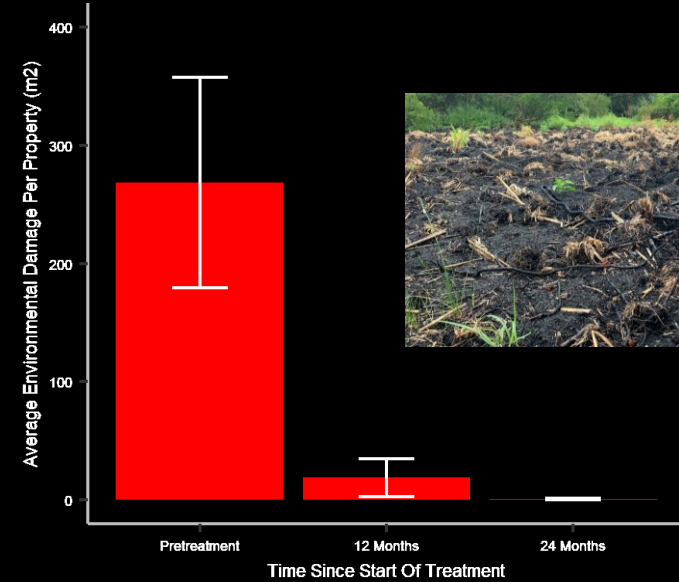
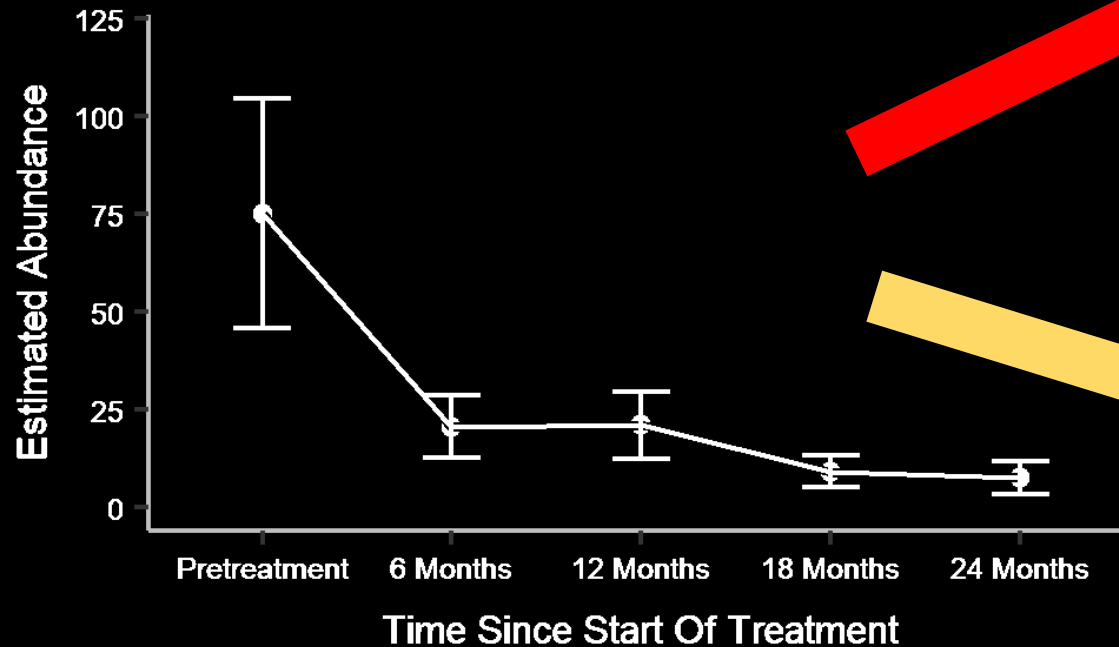
Ecological Impacts



Health and Safety

Leveraging Expertise Beyond SRS

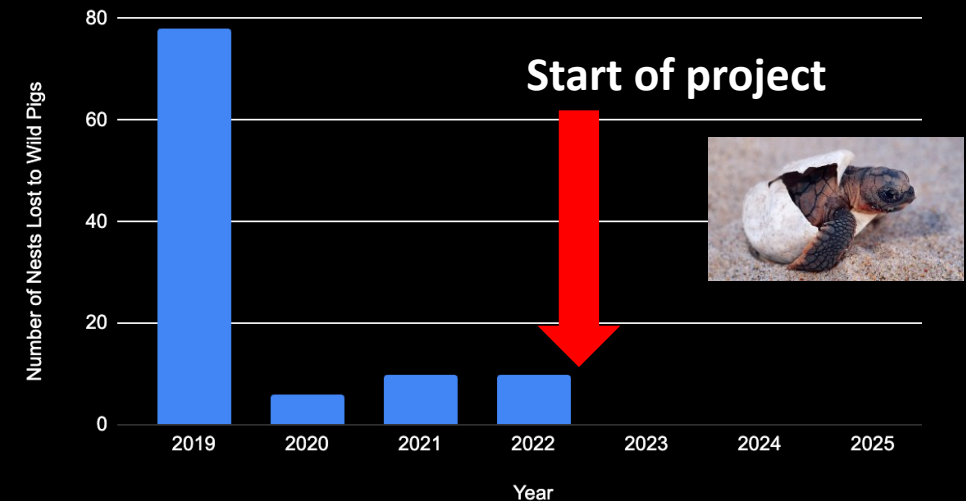
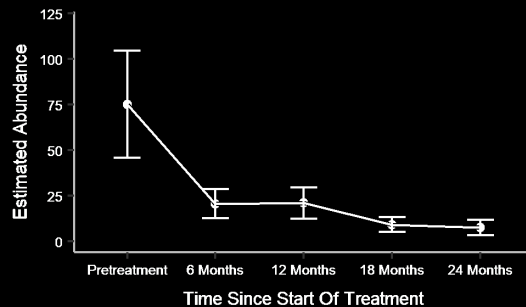
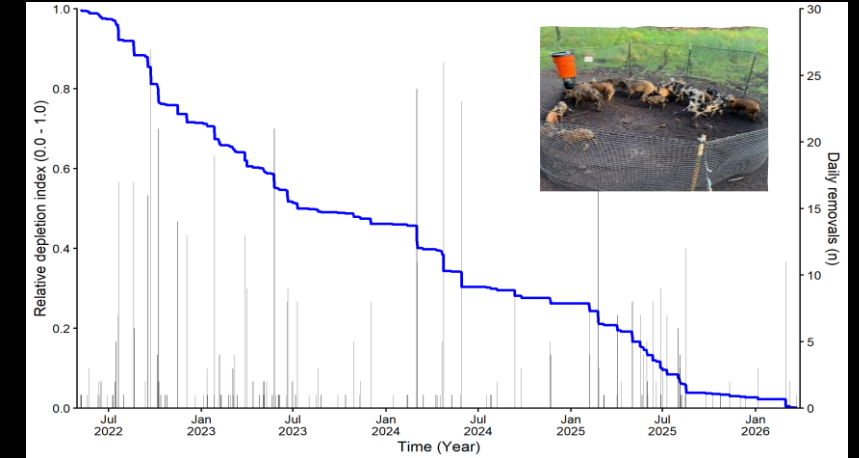
- Farm Bill projects



Leveraging Expertise Beyond SRS

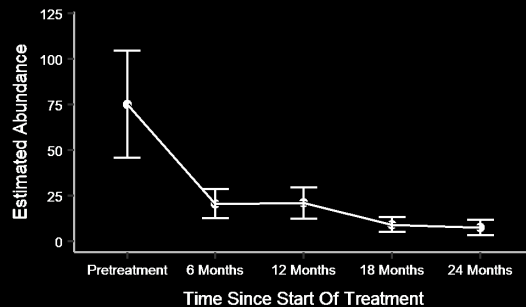
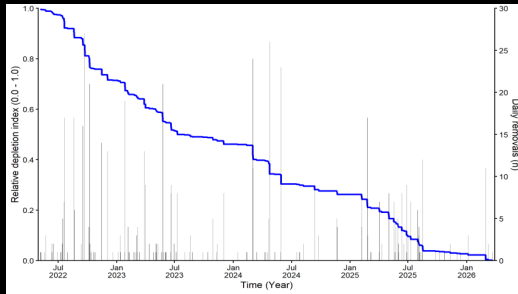
- Farm Bill projects
- Coastal conservation

Blackbeard Island Eradication



Leveraging Expertise Beyond SRS

- Farm Bill projects
- Coastal conservation
- Endangered species protection



Beasley Wild Pig Lab



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Questions?

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