

# Pheromonal Control of the Burmese Python

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# Overview

- **Advantages and Disadvantages**
- **Potential Pheromone-based Approaches**
- **Example: Pheromone Trail - Trap Technology Development with Go / No-Go Gates**
- **NWRC Capabilities: Development and Testing**

# Advantages - Disadvantages

<b>Advantages</b>	<b>Disadvantages</b>
Species-specific - non-targets unlikely	Likely effective only during breeding season
Environmentally harmless chemicals	Likely effective only on adult males
No live animals or dead (animals or baits) used	Probably more labor-intensive to set up and maintain than food-baited trap
Trap design probably less difficult and costly to develop than food-baited trap; manufacture less costly	Overall technology more costly to develop than for food-based trap
Varied approaches - some possible on large (Park-wide) spatial scale	

# Potential Pheromone-based Approaches

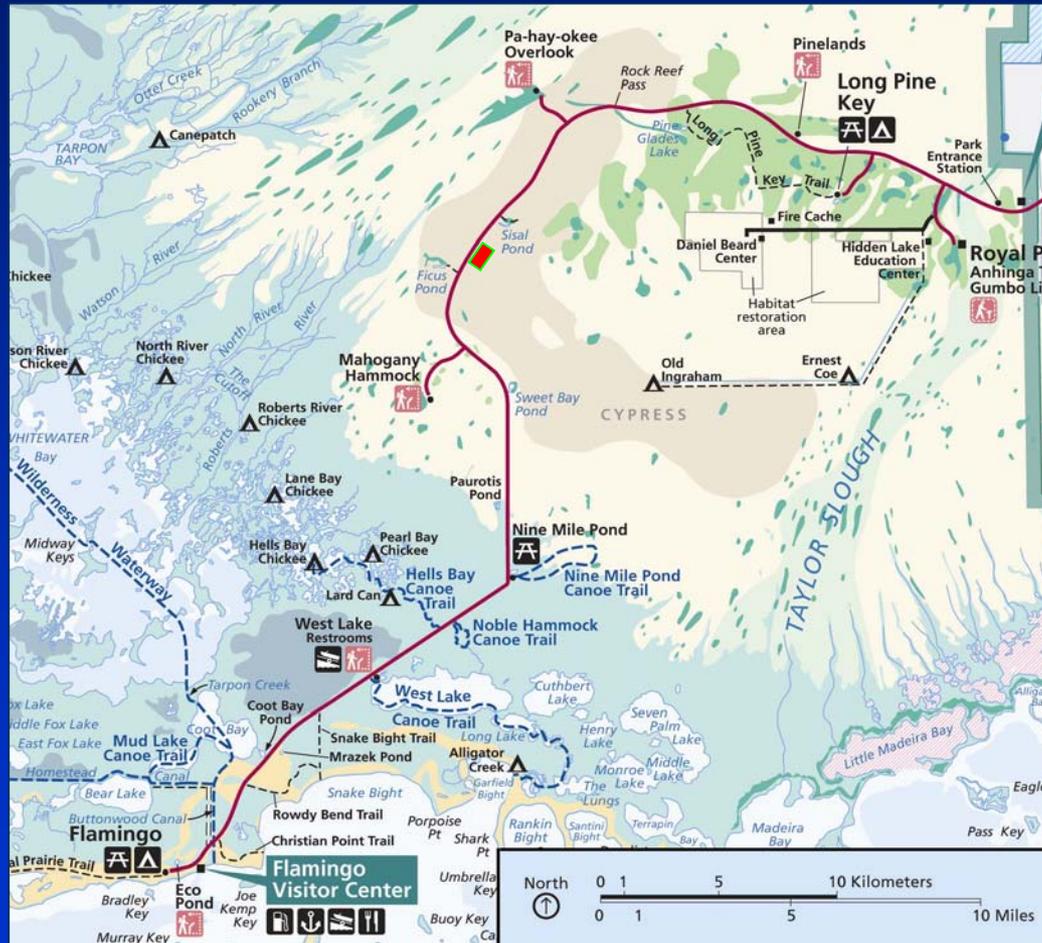
- Trail - Trap
- Mating Disruption: False Trail Following & Male Confusion
- Male Consolidation – Search & Remove

# Pheromone Trail to Trap



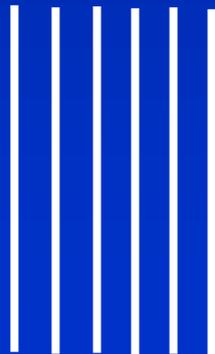
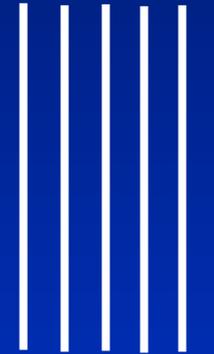
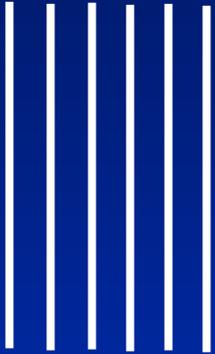
100 m

# Pheromone Trail to Trap

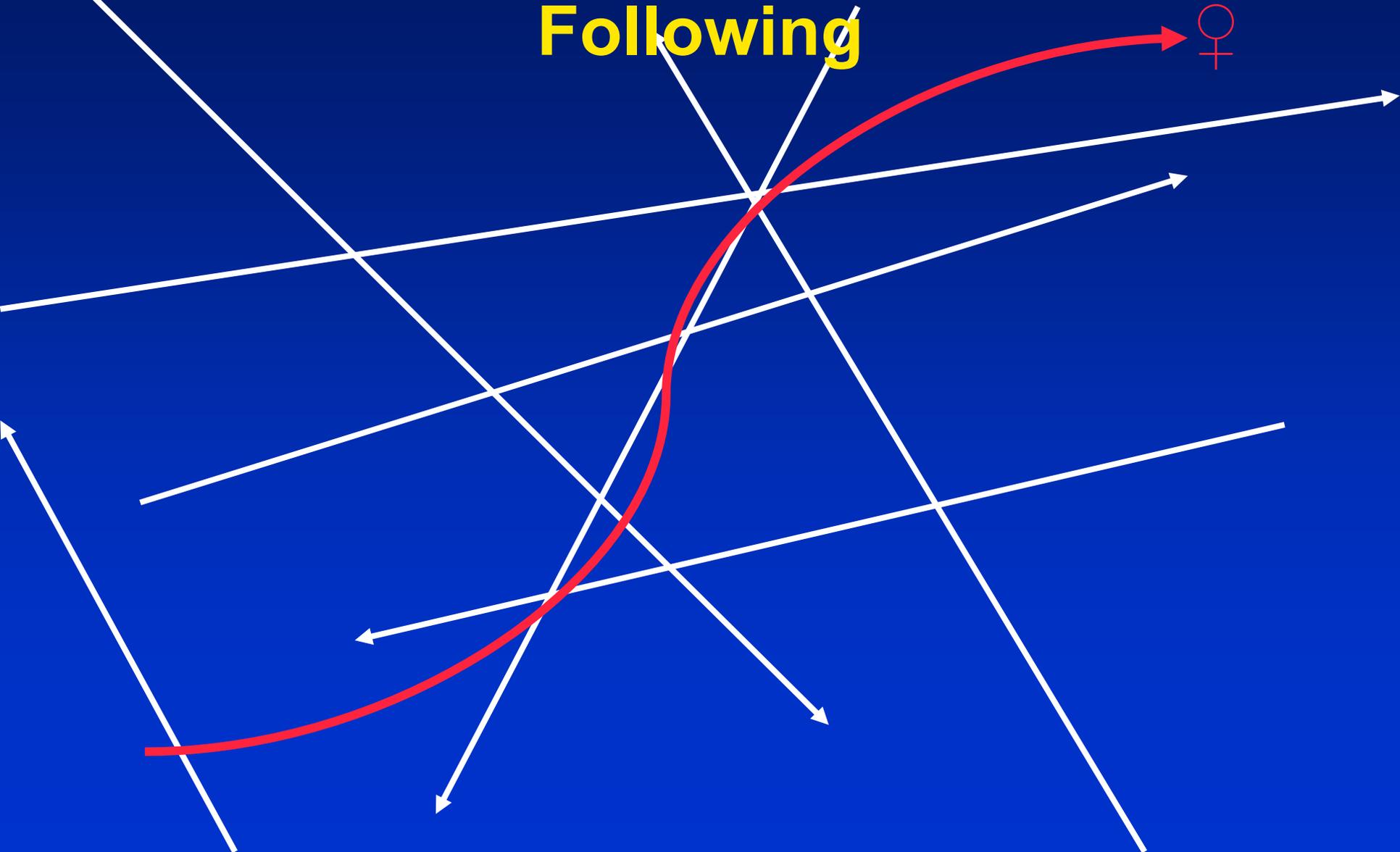




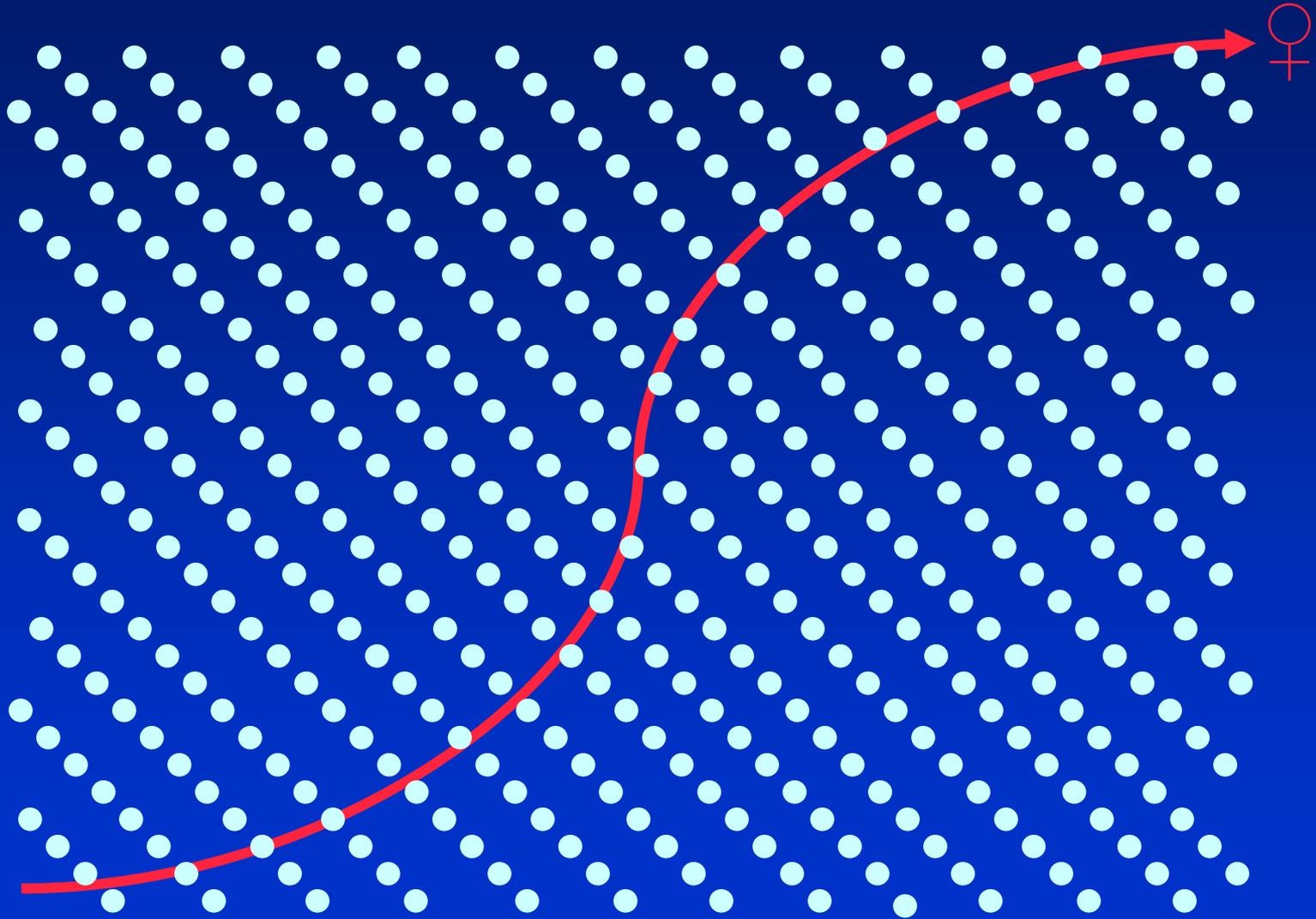
# Male Consolidation - Removal



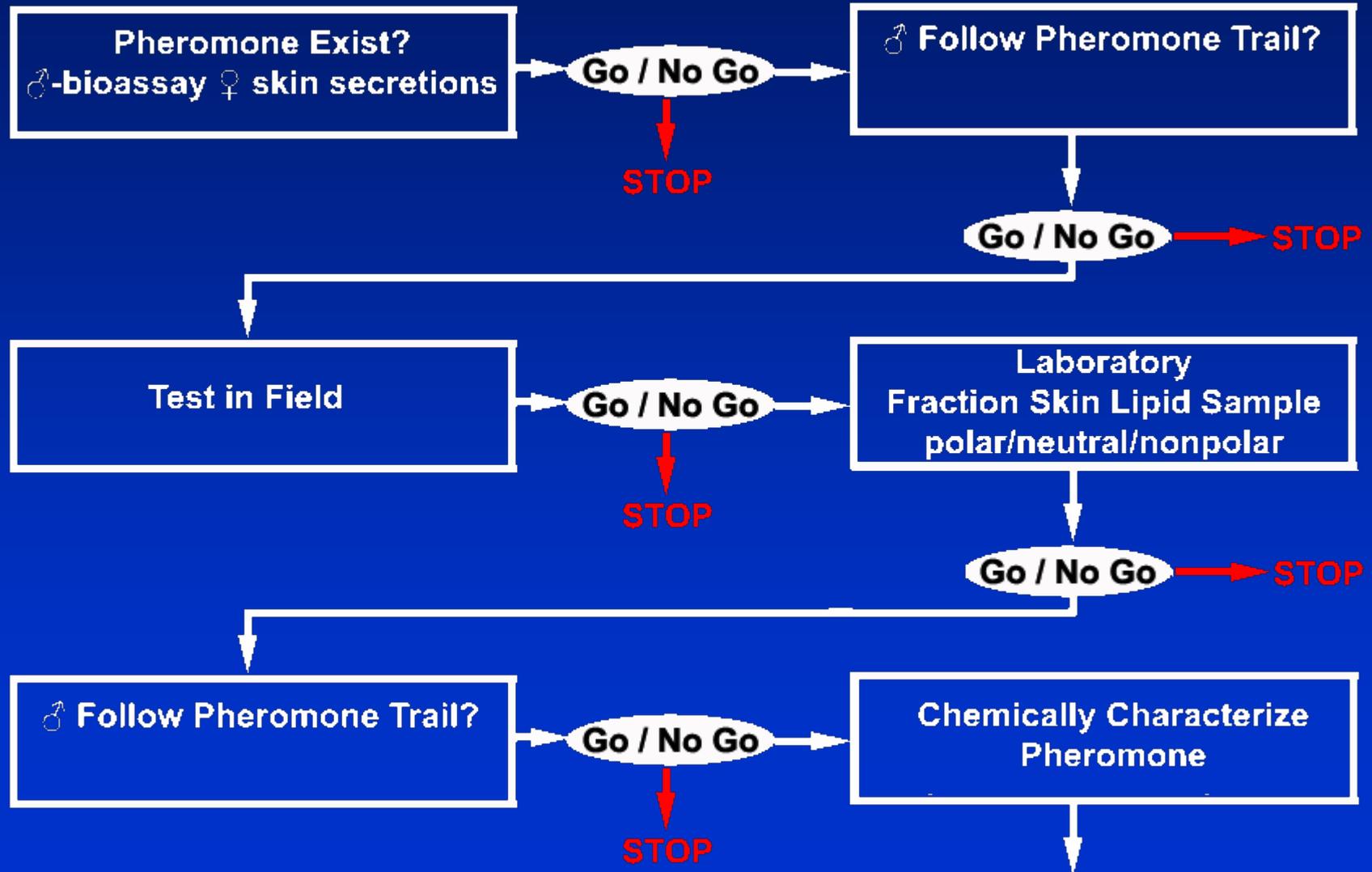
# Mating Disruption: False Trail Following



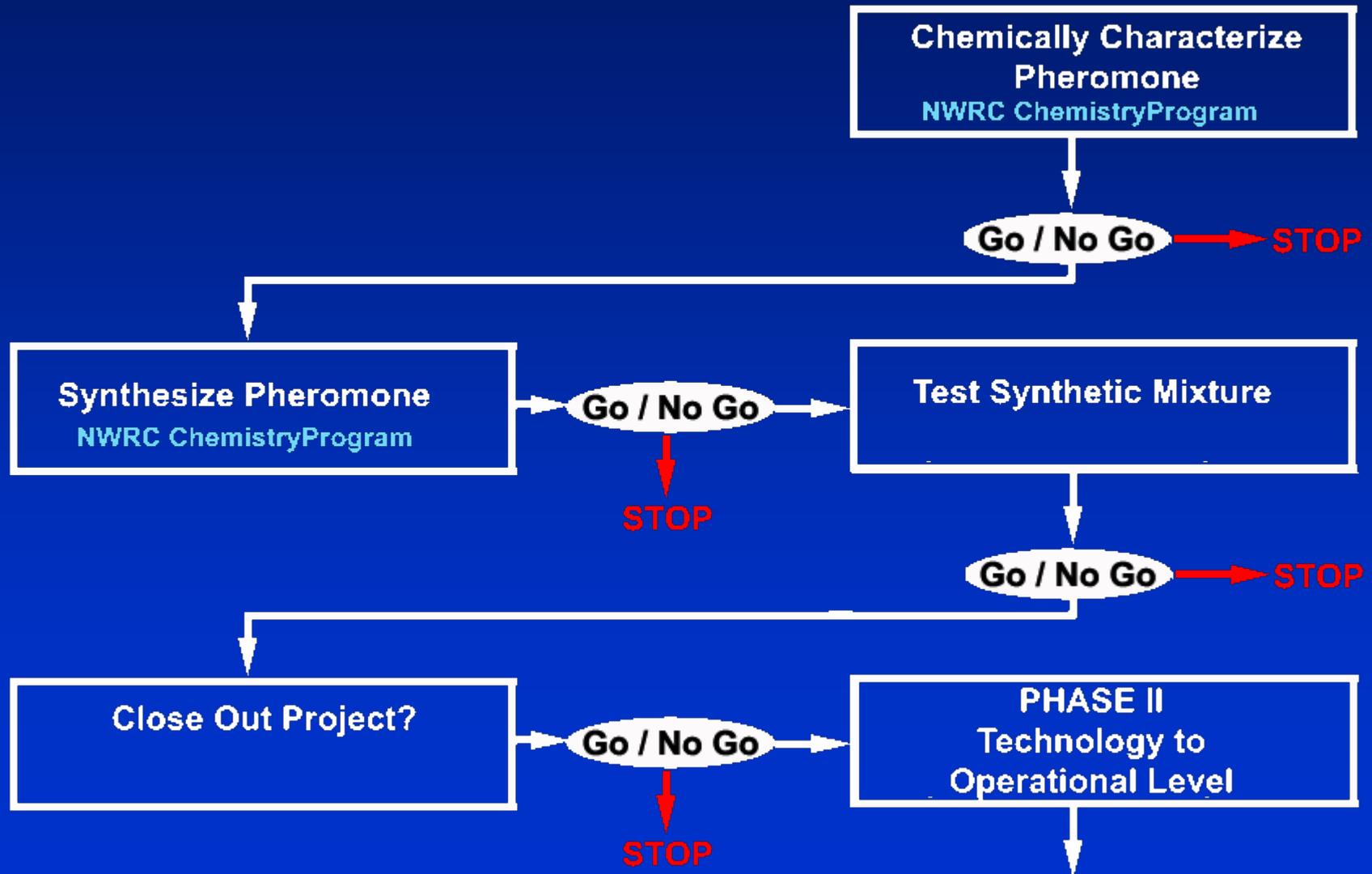
# Mating Disruption: Male Confusion



# Example – Trail to Trap Development



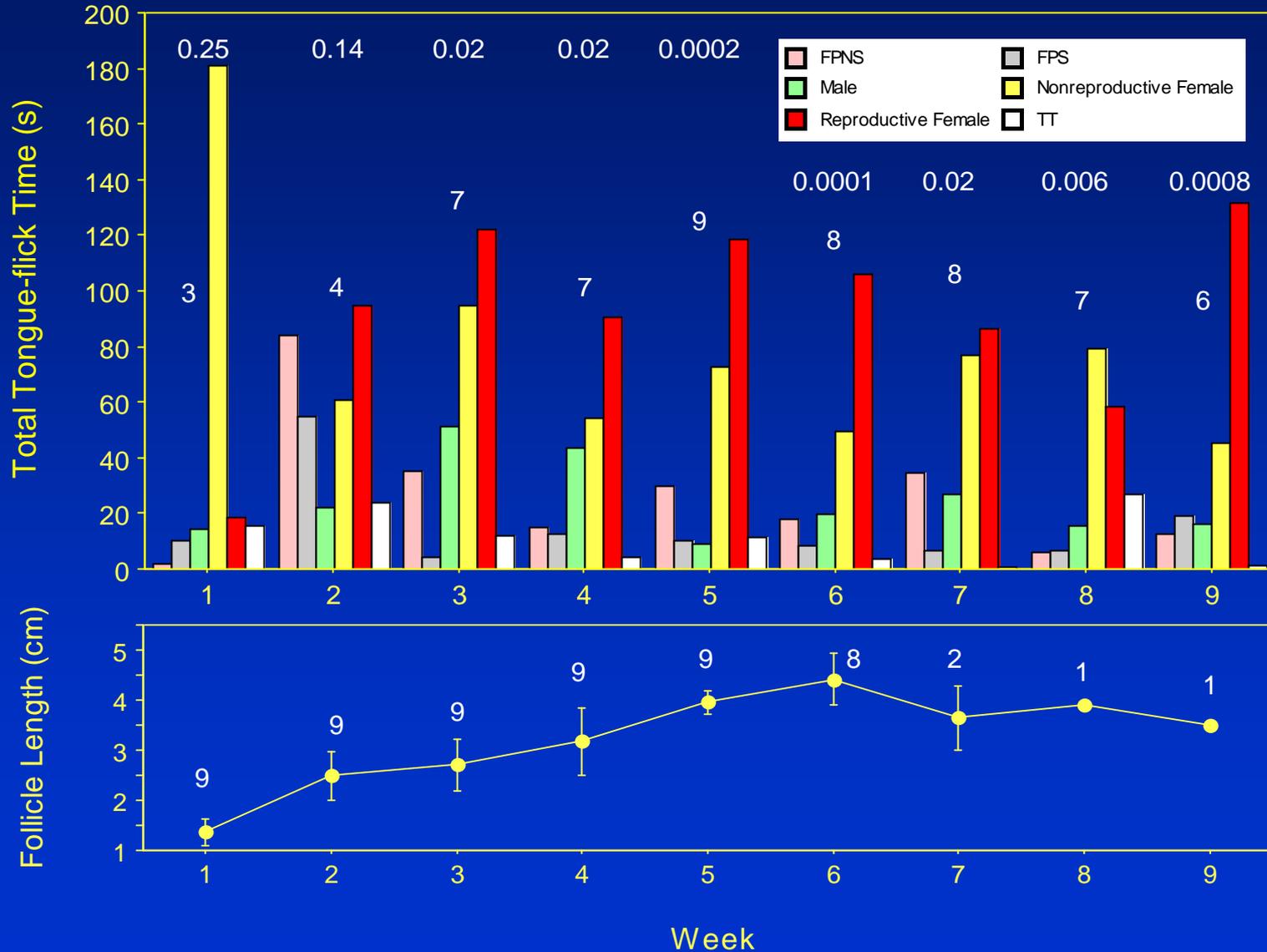
# Example – Trail to Trap Development



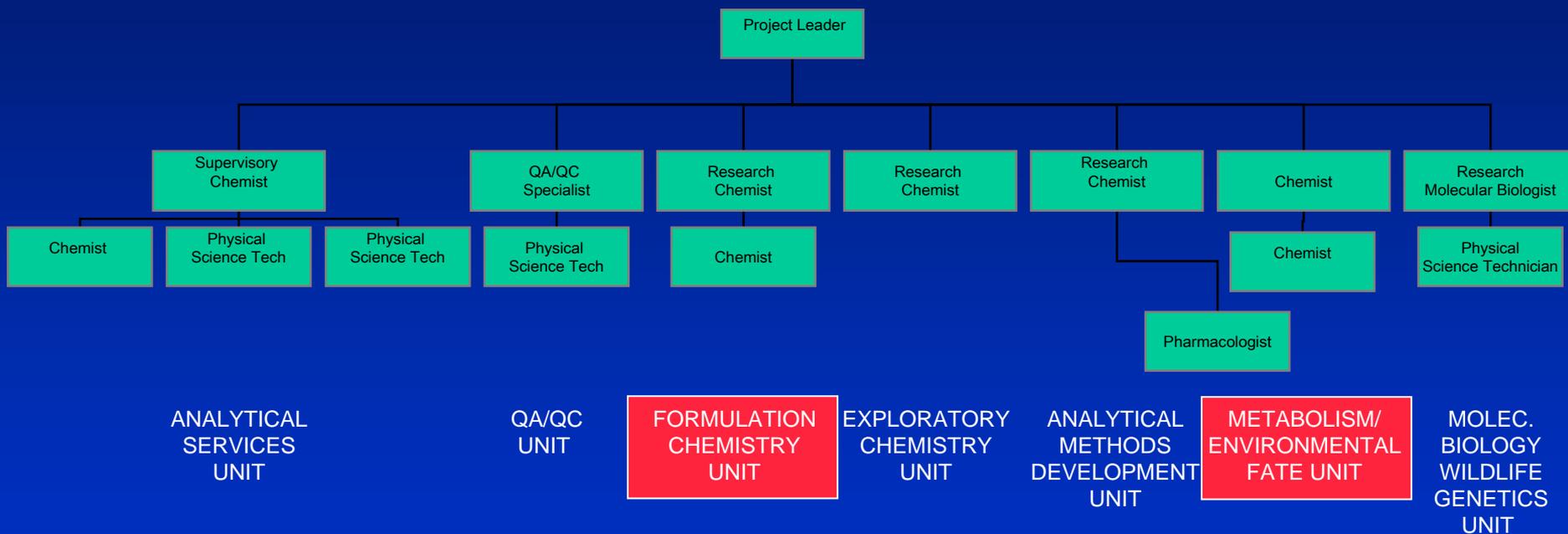
# USDA/ NWRC Capabilities

- **Brown Treesnake Pheromone Research**
- **NWRC Chemistry Program**
- **Python Research – Potential of NWRC Gainesville Field Station**

# Brown Treesnake Sex Pheromone



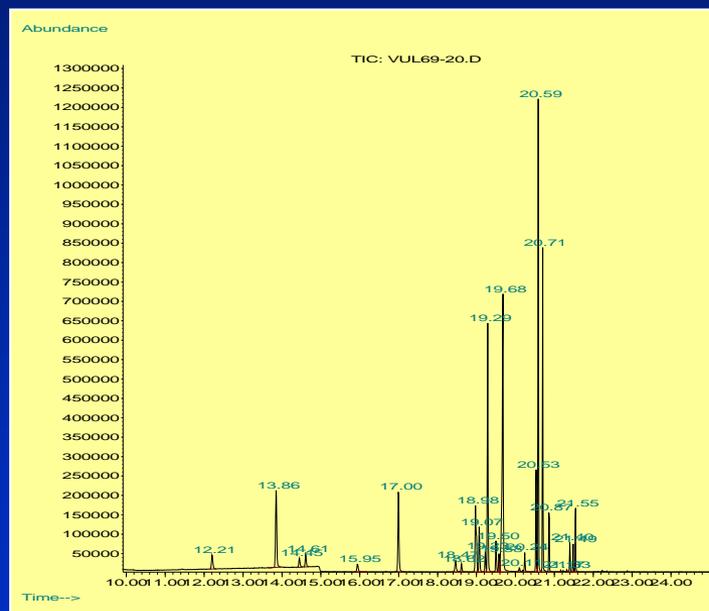
# NWRC Chemistry Project



Synthesize Pheromone

Characterize Pheromone

# NWRC Chemistry Project



# NWRC Gainesville Station

- **Breeding colony, Everglades origin; 7 males, 3 females**
- **Animal care staff**
- **Laboratory space**
- **Large outdoor aviaries for conducting tests (e.g., pheromone trailing)**