



# Endangered Species and Military Training at Fort Hood, Texas

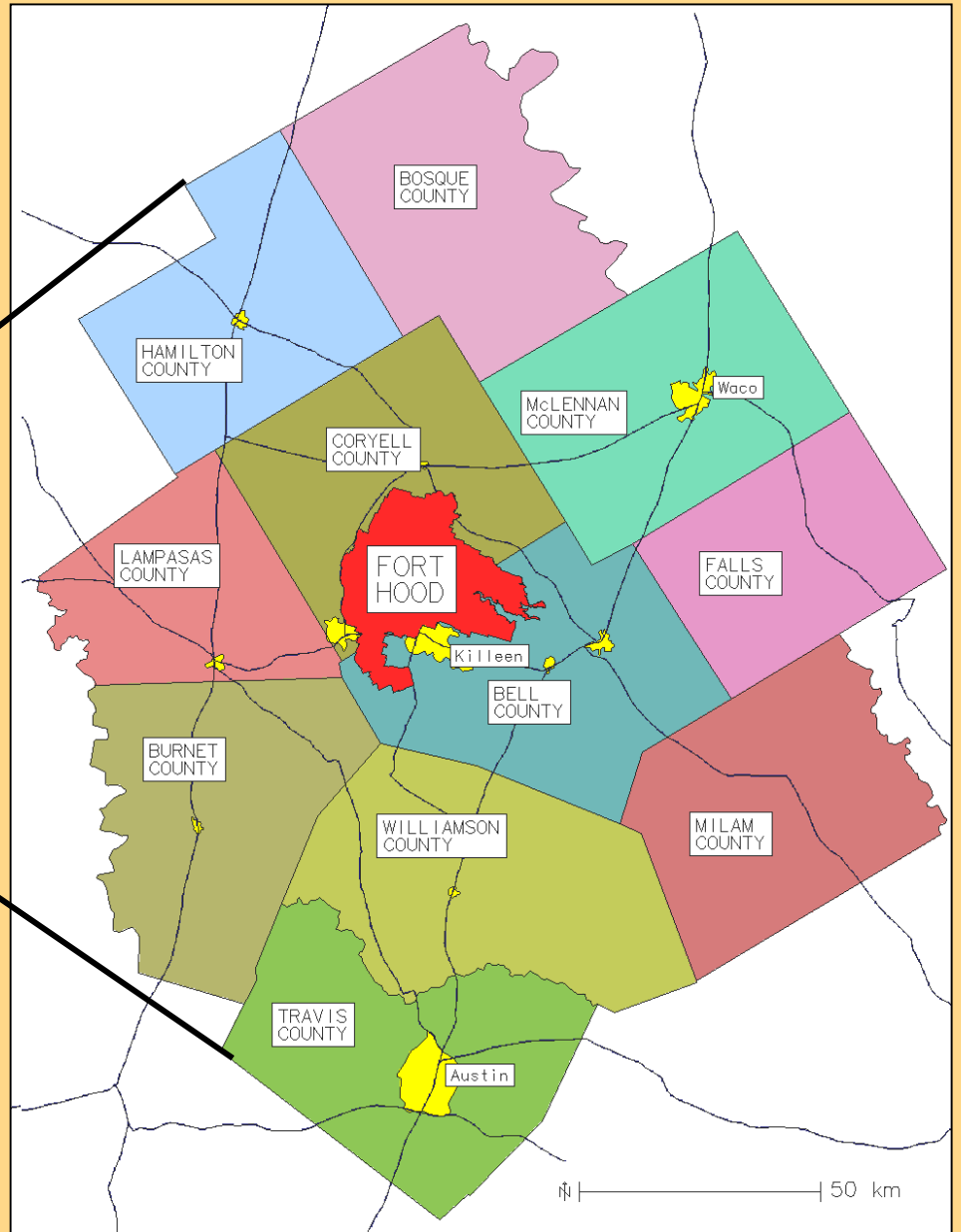
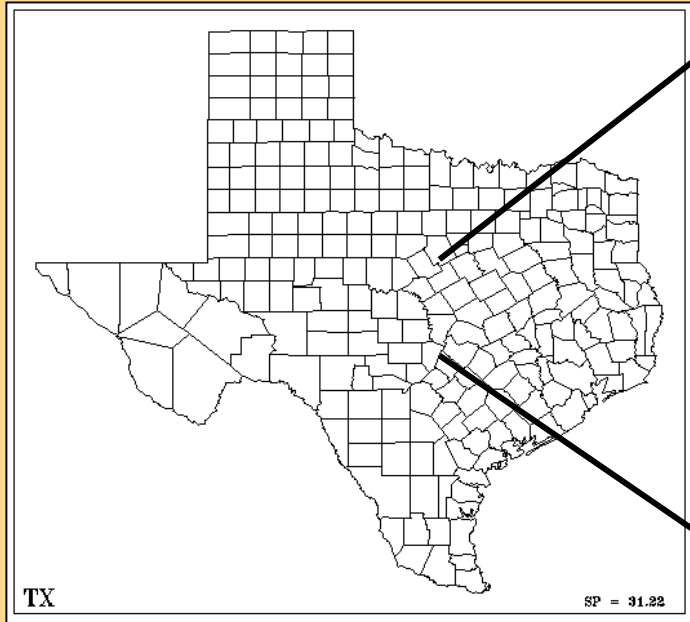


# Report Documentation Page

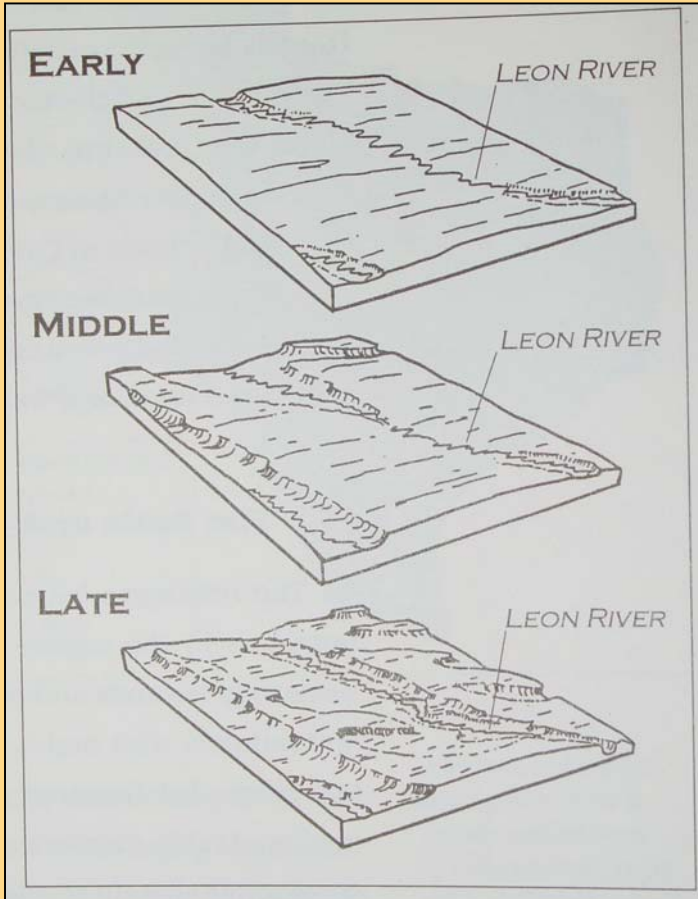
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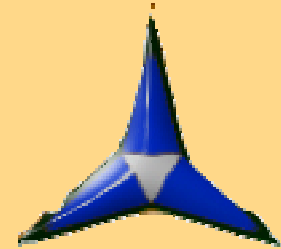
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# Remnant Plateaus



# Military Units



III Armored Corps



4<sup>th</sup> Infantry Division 1<sup>st</sup> Cavalry Division

**AS THE NATION'S COUNTEROFFENSIVE FORCE, III CORPS TRAINS, MOBILIZES, DEPLOYS, AND SUSTAINS READY FORCES; ON ORDER, CONDUCTS DECISIVE FULL-SPECTRUM JOINT OR COMBINED OPERATIONS.**

# Iraq training



خدعة تفاد؛ حيلة؛ مراوغة؛

**Al - Kurtz**

# Tactical Weapon Systems



# T & E Species



Photo by Brian Wheeler

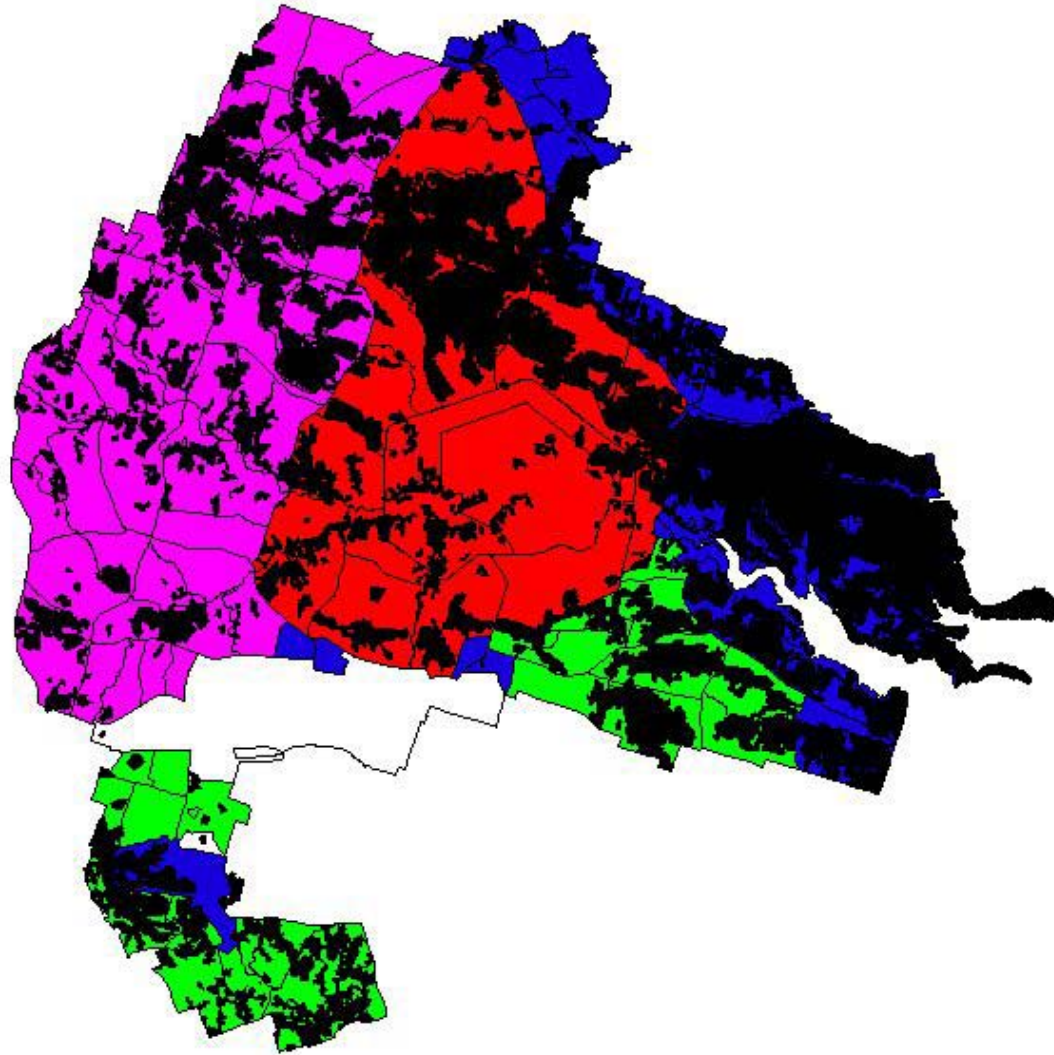


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# Military Land Use

42 km



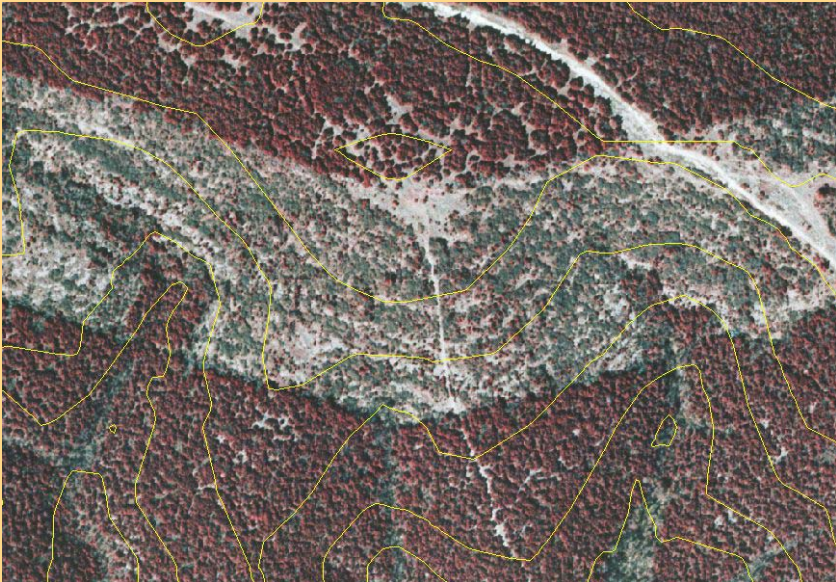
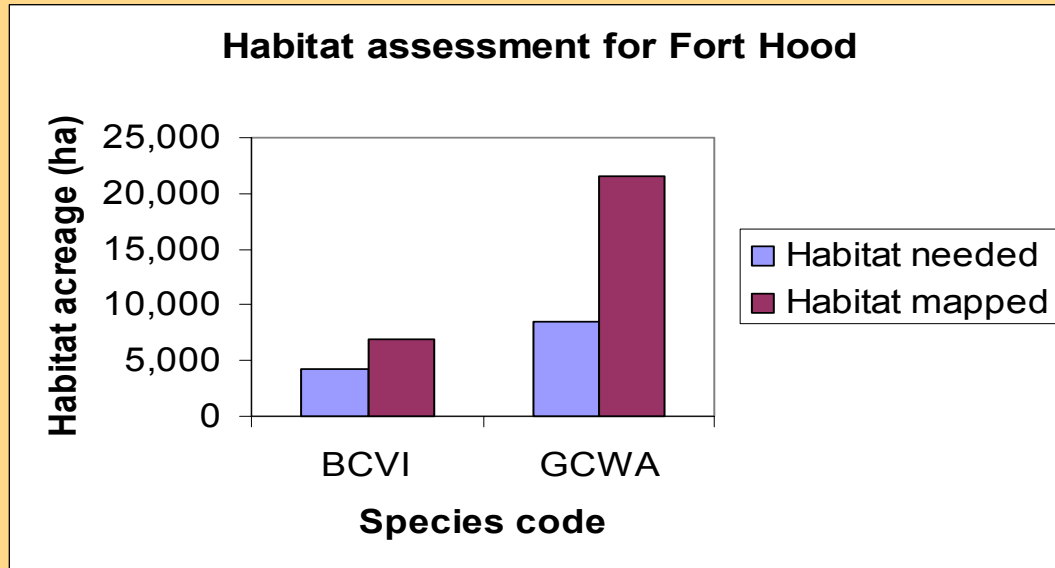
# Regulation Hierarchy

- Sections 7 & 9, Endangered Species Act of 1973 as amended
- Biological Assessment
- Biological Opinion
- Military Natural Resources Management Guide (AR 200-3 Ch. 11)
- Endangered Species Management Plan (ESMP)

# Fort Hood ESMP

- Based on adaptive management principles
- Guideline that implements the Biological Opinion
- Establishes “incidental take” limits based on military impacts
- Establishes conservation objectives for TES

# Habitat assessment

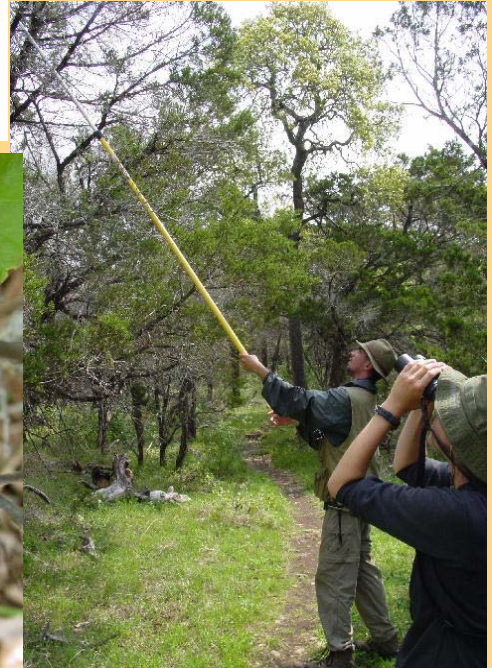


# Population monitoring

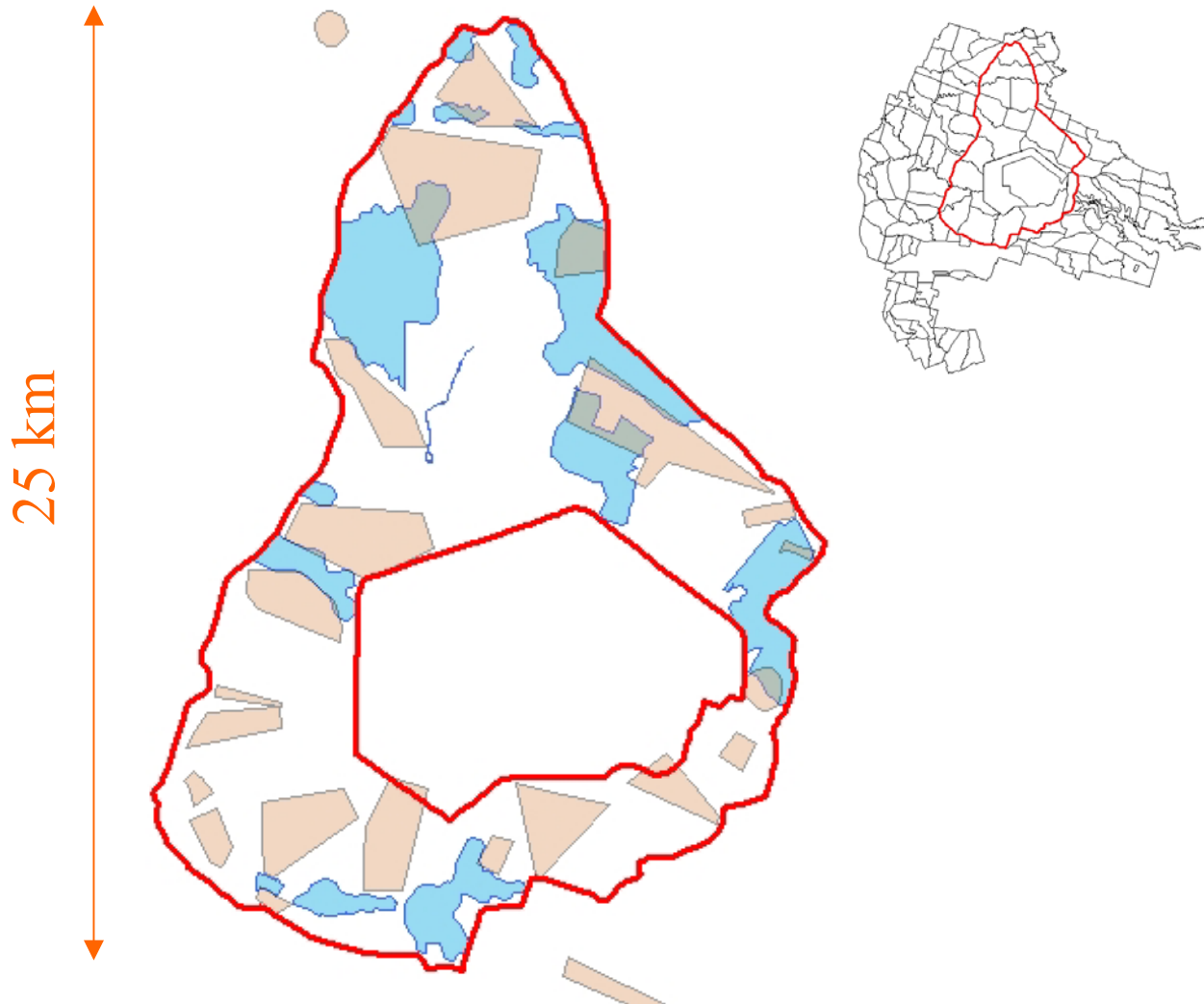
The Nature  
Conservancy®



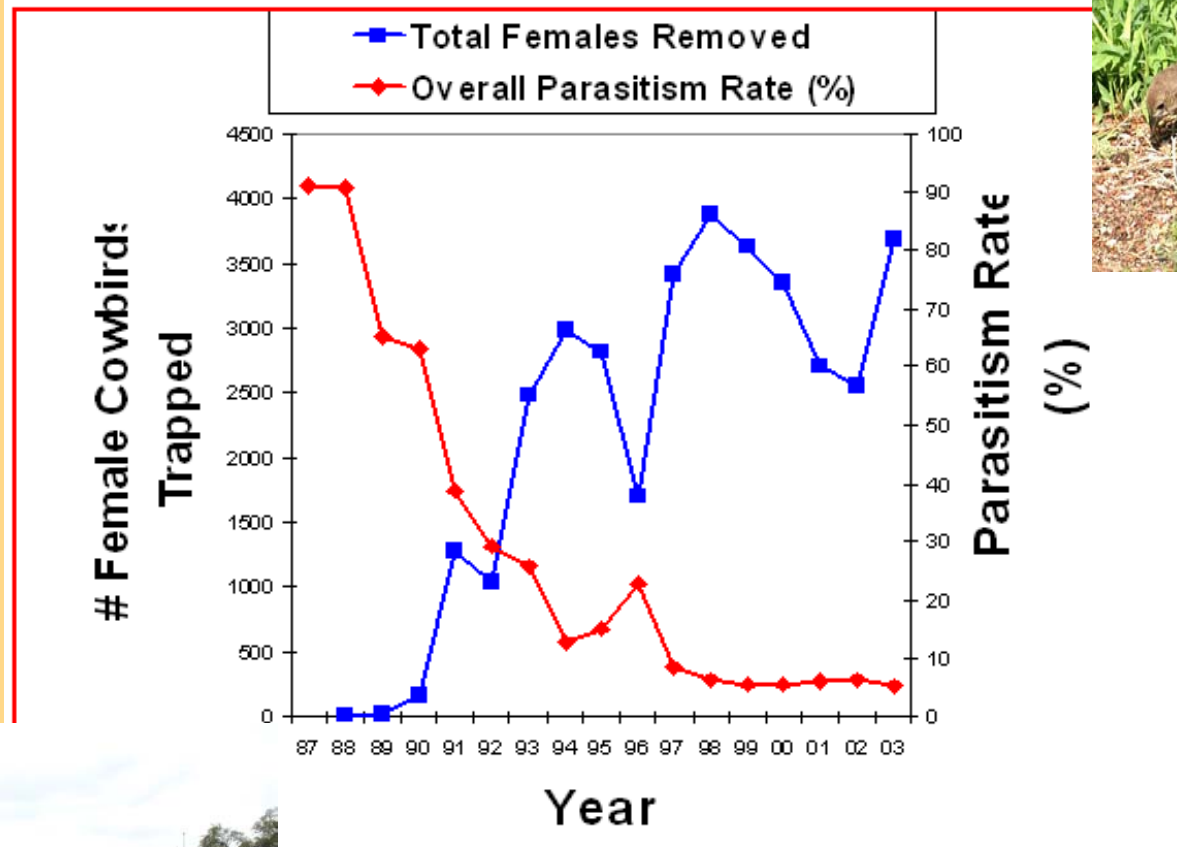
SAVING THE LAST GREAT PLACES ON EARTH



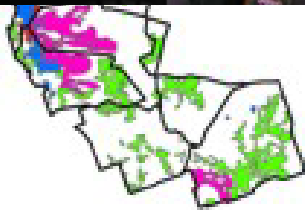
# Endangered Species Survey Areas



# Cowbird Control



# Core and Non-core habitat



# Fort Hood Biological Opinion Finding...

Military activities are **NOT**  
likely to jeopardize the  
continued existence...



# Training and GCWA



- Stable, mature forest on steep mesas
- Habitat not conducive to armor maneuver training
- More conducive to dismount company training, observation points, and artillery firing points

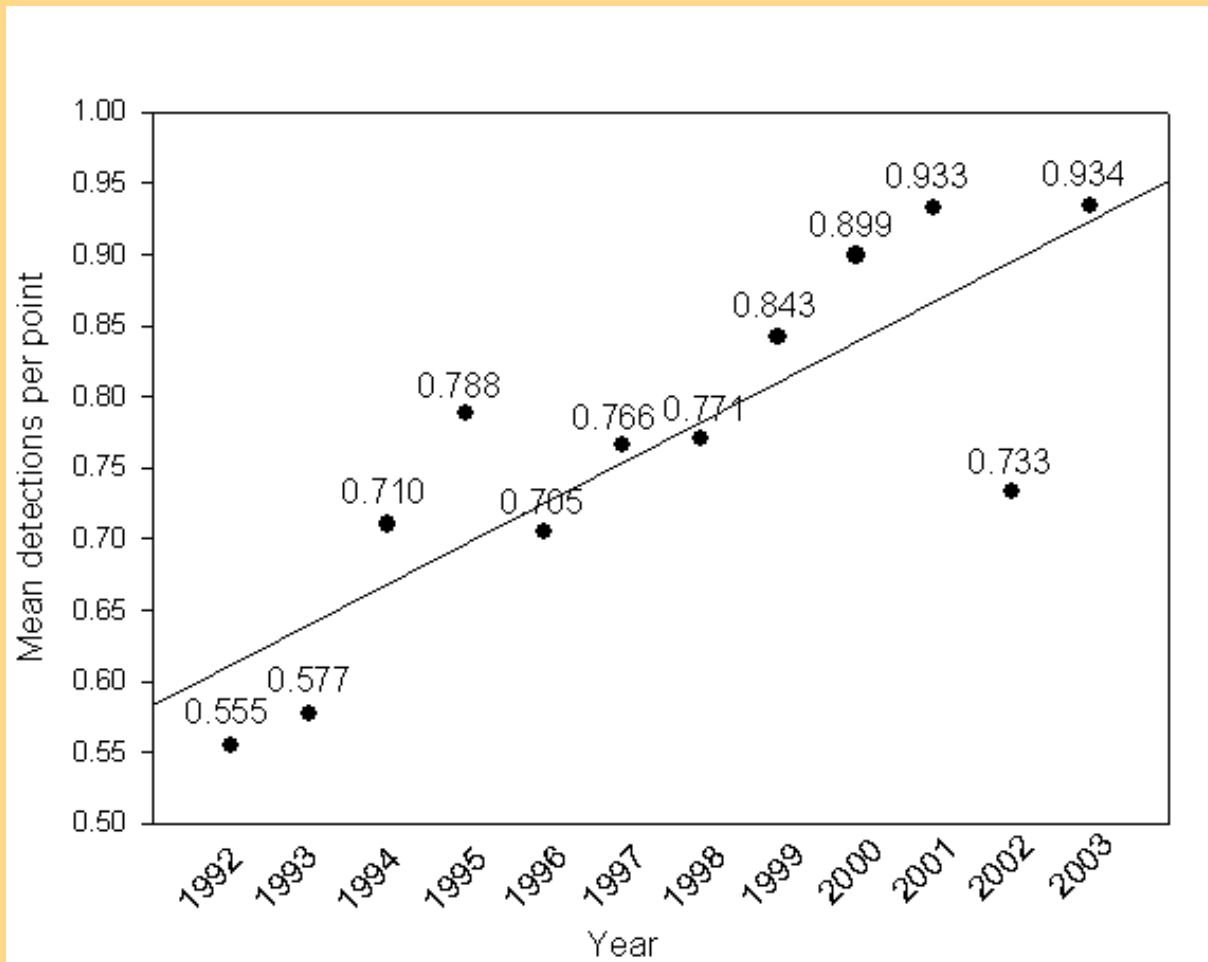


# Susceptible to fire

- Protected with firebreaks
- Fire danger rating system
- Fire suppression
- Maintain grassland and shrubland buffers



# Population Trend





## Training and BCVI



- Early successional, disturbance-dependent shrubland/grassland matrix
- Habitat conducive to armor maneuver, laser, and weapon systems firing training
- MODERATE levels of military training help create and maintain habitat through...

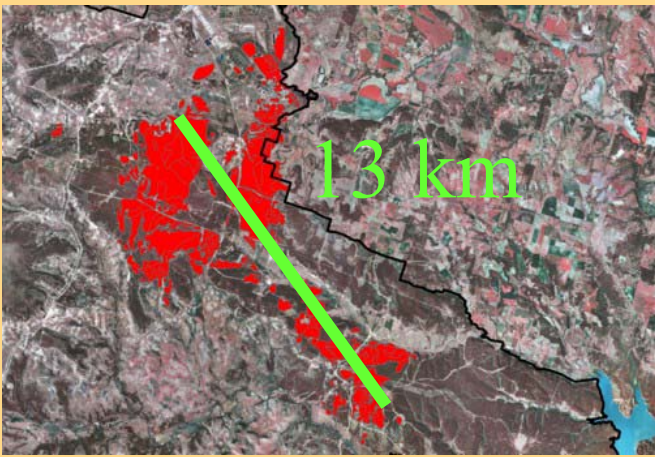
# Maneuver training



# Wildfire

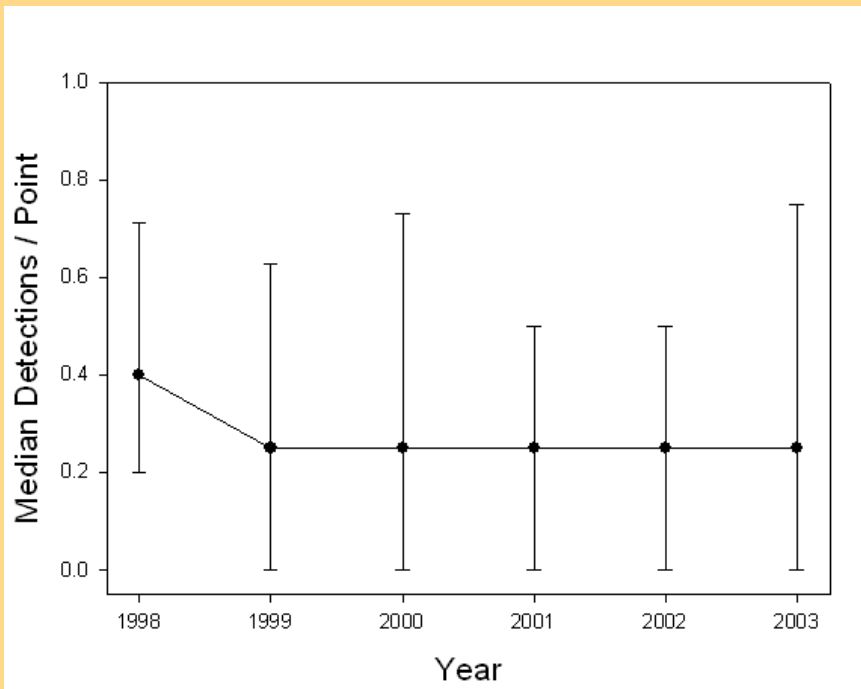


1996

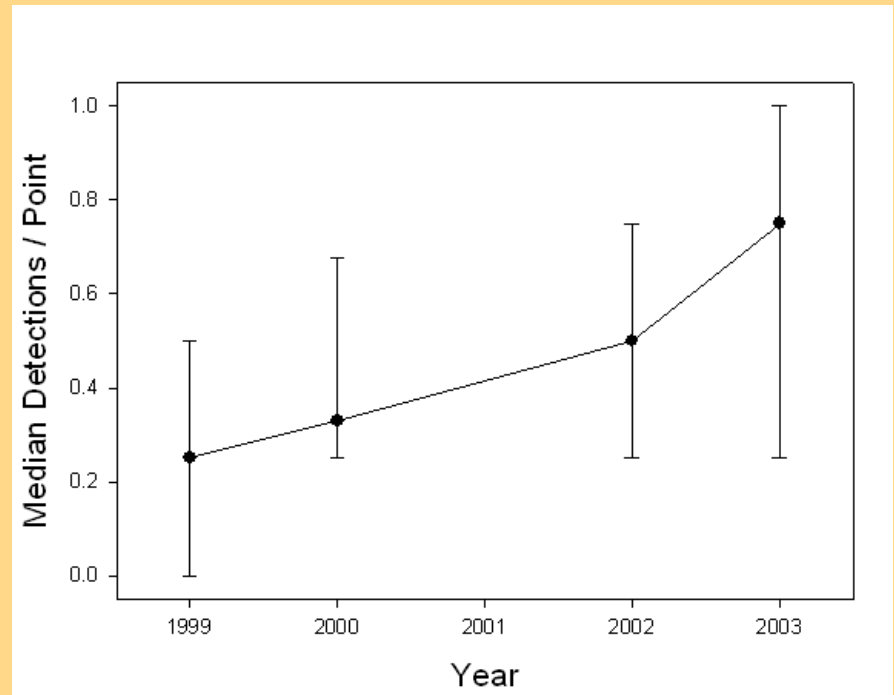


# Population Trend

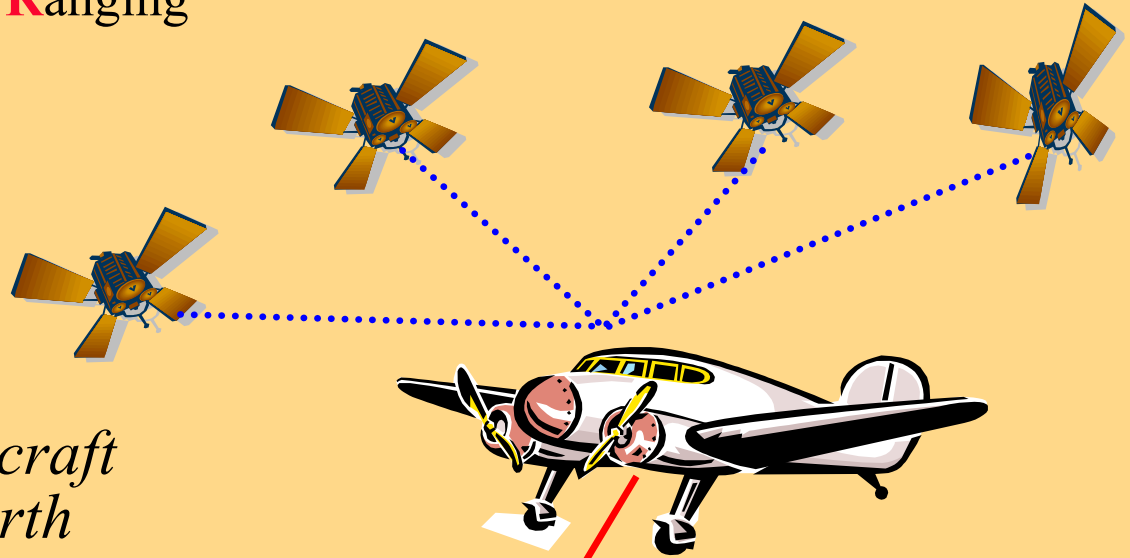
Installation-wide



1996 burn area

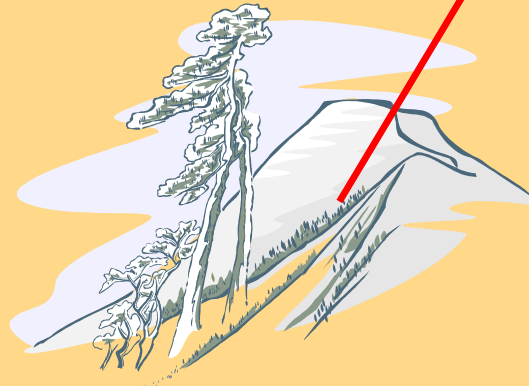


# Airborne **L**ight **D**etection **A**nd **R**anging (**LIDAR**) Systems



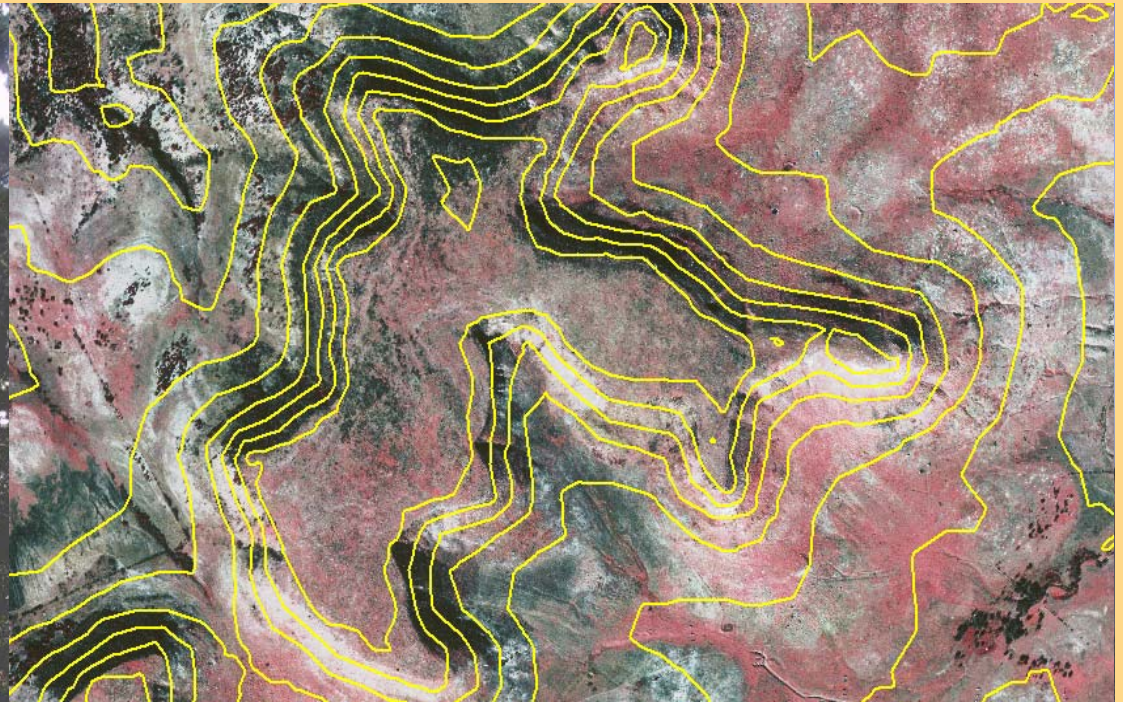
- **Laser** ranging from aircraft
- Measure distance to earth
- GPS for aircraft position
- Internal Measurement Unit (IMU) for aircraft attitude (pitch, roll, and yaw)

Source: [CRREL Remote Sensing/GIS Center](#)





# CORNELL LAB of ORNITHOLOGY



Microphone array

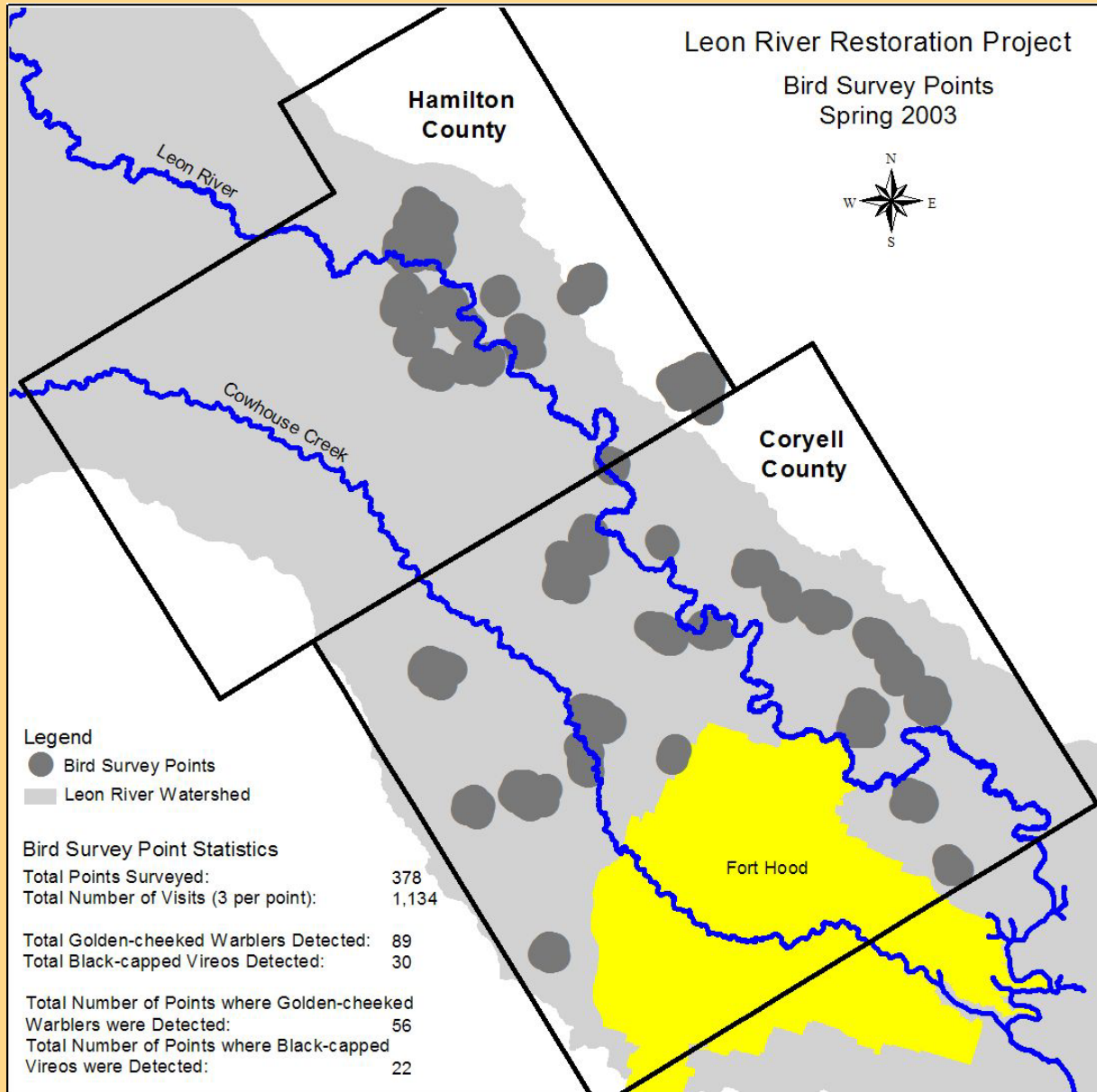
# Infra-red Nest Cameras



# Blast noise impacts



# Off Post Buffers



e  
ENVIRONMENTAL DEFENSE  
finding the ways that work

The Nature Conservancy 

SAVING THE LAST GREAT PLACES ON EARTH

TEXAS  
PARKS &  
WILDLIFE

# Take Home Message

III Armored Corps **IS** maintaining battle readiness **WHILE** maintaining endangered species habitat and populations

## IMPORTANT BIRD AREA

THIS SITE HAS BEEN IDENTIFIED AS BEING SIGNIFICANT FOR WORLD BIRD CONSERVATION AND OFFICIALLY DESIGNATED A GLOBALLY IMPORTANT BIRD AREA



FOR MORE INFORMATION ABOUT THE IBA PROGRAM CONTACT AMERICAN BIRD CONSERVANCY: (888) 247-3624, [www.abcbirds.org](http://www.abcbirds.org)



# Do endangered species restrictions impact mission readiness?



# Does military training negatively impact wildlife?



[HTTP://MORE.AT/FUNNYEMAIL](http://more.at/funnyemail)

