

How to Have Fewer Endangered Species to Avoid

Dr. Hal Balbach

Environmental Biologist

USA ERDC-CERL

17 June 2010



9955



Report Documentation Page

Form Approved
OMB No. 0704-0188

Public reporting burden for the collection of information is estimated to average 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to Washington Headquarters Services, Directorate for Information Operations and Reports, 1215 Jefferson Davis Highway, Suite 1204, Arlington VA 22202-4302. Respondents should be aware that notwithstanding any other provision of law, no person shall be subject to a penalty for failing to comply with a collection of information if it does not display a currently valid OMB control number.

1. REPORT DATE 17 JUN 2010		2. REPORT TYPE		3. DATES COVERED 00-00-2010 to 00-00-2010	
4. TITLE AND SUBTITLE How to Have Fewer Endangered Species to Avoid				5a. CONTRACT NUMBER	
				5b. GRANT NUMBER	
				5c. PROGRAM ELEMENT NUMBER	
6. AUTHOR(S)				5d. PROJECT NUMBER	
				5e. TASK NUMBER	
				5f. WORK UNIT NUMBER	
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) Army Engineer Research and Development Center, Construction Engineering Research Laboratory, Champaign, IL, 61826-9005				8. PERFORMING ORGANIZATION REPORT NUMBER	
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)				10. SPONSOR/MONITOR'S ACRONYM(S)	
				11. SPONSOR/MONITOR'S REPORT NUMBER(S)	
12. DISTRIBUTION/AVAILABILITY STATEMENT Approved for public release; distribution unlimited					
13. SUPPLEMENTARY NOTES Presented at the NDIA Environment, Energy Security & Sustainability (E2S2) Symposium & Exhibition held 14-17 June 2010 in Denver, CO.					
14. ABSTRACT					
15. SUBJECT TERMS					
16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT Same as Report (SAR)	18. NUMBER OF PAGES 32	19a. NAME OF RESPONSIBLE PERSON
a. REPORT unclassified	b. ABSTRACT unclassified	c. THIS PAGE unclassified			

Many animal (and plant) species are officially listed as threatened or endangered at the state or Federal level, and many more are considered *at-risk* of being so listed.

These are the “Species at Risk”



Gopher tortoise
(*Gopherus polyphemus*)



Pine snake (*Pituophis melanoleucus*)



Bachman's sparrow
(*Aimophila aestivalias*)



Red-cockaded woodpecker
(*Picoides borealis*)



Carphephorus bellidifolius
(Sandywoods chaffhead)



Astragalus michauxii
(Sandhills milkvetch)



Striped Newt
(*Notophthalmus perstriatus*)



Eastern indigo snake
(*Drymarchon corais couperi*)



Warea cuneifolia
(Carolina pinelandcress)



SE Kestrel
(*Falco sparverius paulus*)



SE Pocket gopher
(*Geomys pinetis*)



Gopher frog (*Rana capito*)



Stylisma pickeringii
(Pickering morning-glory)

BU

Species-at-Risk Research Program

- Why is the Army interested in SARs?
 - Army installations have been surveyed, and support 200+ SARs
 - The installations believe that about 1/3 of these would cause major mission conflict were they to be listed as threatened or endangered.
- The goal of the research program is to prioritize, then study, these species.
- First priority are species which could cause the most serious mission conflicts
- Knowing less about a species never helps, because when we understand the biology, we are then in a better position to make decisions.



The Army and DoD Problem

With Species at Risk

- Our lands are pretty well managed
- Prescribed fire used much more than average...maintains diversity
- Boundaries provide de-facto protection
- Range safety creates large off-limits zones
- Human intrusions limited in these areas
- Large maneuver areas sporadically used
- Wildlife is attracted and remains on site



SAR Species:

“Endangered Species in Waiting”

- Pre-identified as being sensitive, decreasing populations, loss of habitat, etc.
- Army has ca. 259 Endangered, Threatened, Proposed or Candidate species already!
- 133 installations have these TEPC species on site or on adjacent property
- More than 250 SARs also reported
- The Army considers 65 of these “priority” SARs
- Mission impact the basis for this evaluation



What is a Candidate Species?

- A species whose continued existence *as a species* might become threatened
- Therefore, candidates to become listed
- How do SAR *become* Candidates?
- Basically, by continuing to decrease in numbers, occupied habitat, or both
- Why is the Army concerned?



How do you Break the SAR to Candidate to Listed Species Cycle?

- Remove all the SARs?
 - Not practical, even where legal
 - Ask for an exemption under the law?
 - Incredibly bad PR unless a real emergency
 - Provide enough benefits to a SAR so that it never crosses the line?
 - Sound good
 - Have we ever tried it?
 - Candidate Conservation?
-



Maybe through Candidate Conservation?

What is Candidate Conservation?

Through **Candidate Conservation Agreements** and **Candidate Conservation Agreements with Assurances** the Fish and Wildlife Service works with public and private parties to:

- identify threats to candidate species
- develop measures to conserve species
- identify willing landowners and develop agreements
- implement conservation measures and monitor effectiveness



Tools and Incentives:

Safe Harbor Agreements (USFWS)



Voluntary agreements for recovering listed species

- Open to states, businesses, any non-Federal owner
- Encourages landowners to improve conditions for listed species on their land by removing fear of subsequent federal restrictions on land use
- Can create long-term benefits for species extending beyond period of agreement
- Used numerous times for many species

But, Federal landowners cannot participate...so another tool must be used to accomplish a similar end



Private Landowner Agreements

Section 10

Section 10(a)(1)(A) permitting authority is used to encourage species conservation on *non-Federal* lands.

Type of Agreement	Landowner agrees to...	Fish and Wildlife Service assures
Safe Harbor Agreement	take actions to benefit listed species on their land	no additional restrictions will be imposed as species populations improve
Candidate Conservation Agreements with Assurances	take actions to benefit candidate or other non-listed species on their land	no additional restrictions will be imposed if species is later listed

☹ Federal landowners not allowed to participate



The Federal Dilemma

Under the Endangered Species Act

- Private landowners must avoid harm to the listed species
- This includes harming their habitat, not just avoiding the plant or animal itself
- Federal owners have a higher legal responsibility
- Must maintain and ENHANCE habitat and general conditions for the species
- A significant burden for the military, where intensive land use is normal



Cooperation with the Neighbors

- No one landowner, even DoD, can preserve an entire species
- Does it “take a village to raise a child?”
- It takes a whole state to save a species
- Better yet, a whole region
- We created a region-wide partnership
- Focus was on the Gopher Tortoise



Memorandum of Agreement

Background

- Second Fall Line workshop held at SREL (Aiken, SC) in March 2005
 - 50+ attendees from federal, state and private land management, including military installations and SENRLG reps
 - Agreed to focus on two crosscutting regional issues
 - *Controlled burning practices*
 - *Gopher tortoise conservation*
- GT workshop Jun 05 at Ft. Gordon, GA
 - Agreed to pursue an MOA among all parties as a way to move forward



Gopher Tortoise MOA Background

- Following Ft. Gordon workshop, draft text of a Memorandum of Agreement developed
- Group of persons from many sectors worked to refine the wording
- Ended up with a simple agreement that the parties believed that it was a good idea to improve management of the tortoise
- *Did not commit partners to any specific funds or actions*
- Open-ended so that anyone could join in
- First signature by GA DNR on 22 Mar 06
- Always viewed as only a first step



GT MOA Partners...as of August 2006



PARC

PARTNERS IN
AMPHIBIAN
& REPTILE
CONSERVATION



SAVING THE LAST GREAT PLACES ON EARTH

THE CONSERVATION FUND

Celebrating 20 Years of Conservation

But we were aiming higher all along...

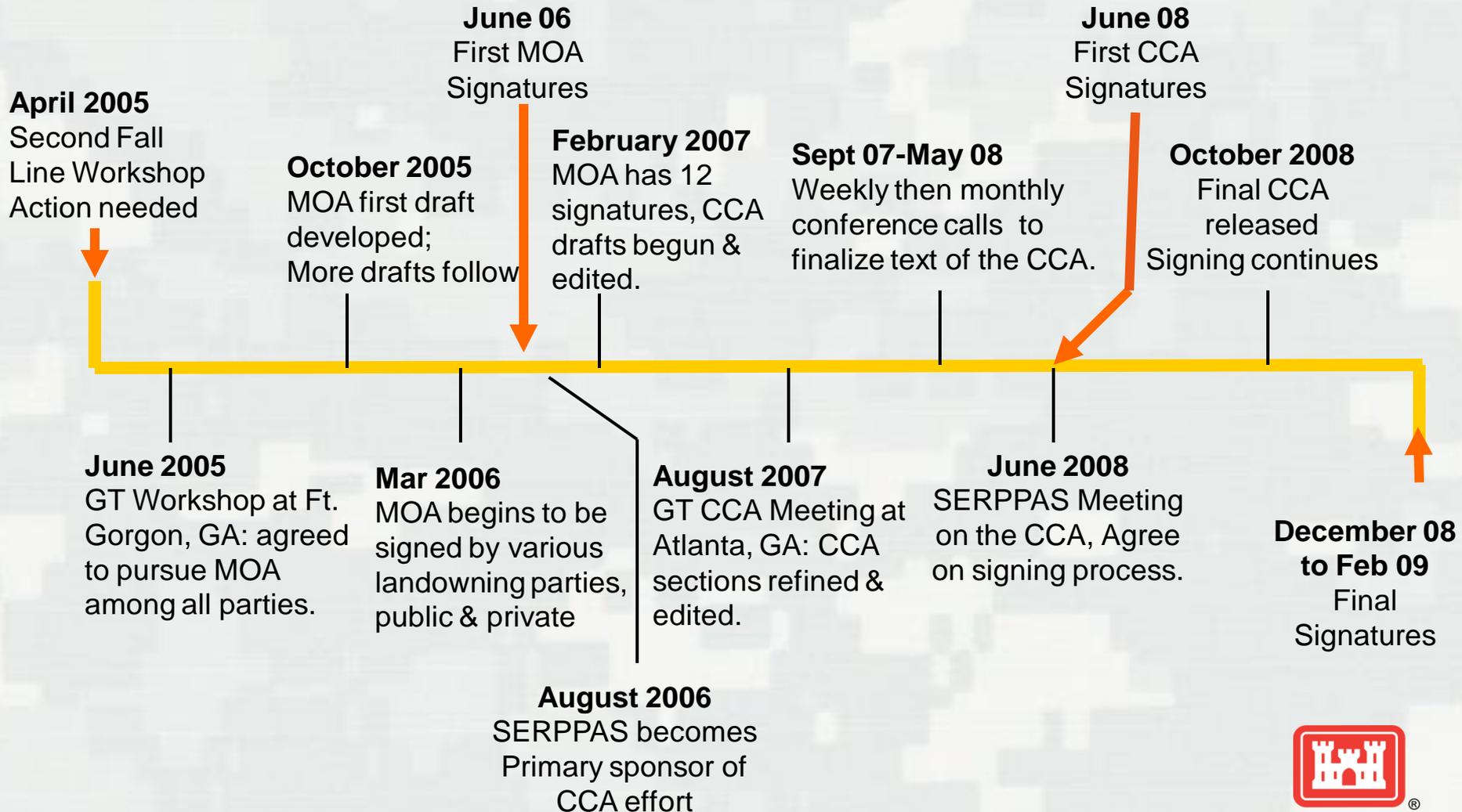


CCA: Goals & Objectives

- Manage resource before species becomes a crisis
- Give credit to current efforts already being done
- Organize conservation approach and encourage uniformity in reporting
- Integrate monitoring and research efforts with management efforts
- Leverage resources and existing management plans
- Improve status of species and follow PECE framework
- *Creates a legally binding commitment of effort*
- Provide up-to-date GT management guidance for partners and private landowners (not all conservation actions are mandatory for private landowners)



Progress: MOA to CCA Timeline



Who and what is SERPPAS?

- Southeast Regional Partnership for Planning and Sustainability...organized by DUSD(ES)
 - to promote better collaboration in making resource use decisions
 - work to prevent encroachment around military lands, encourage compatible resource-use decisions, and improve coordination among regions, states, communities, and military services
 - The region includes the states of North Carolina, South Carolina, Georgia, Alabama, and Florida
- Partnership among DoD and the five state governors

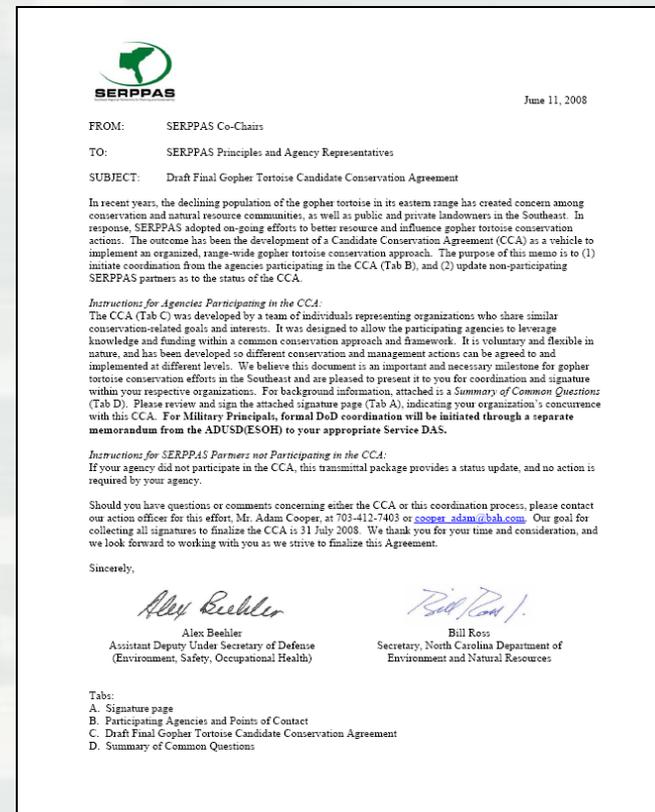




SERPPAS

June 2008 Meetings

- **Spring SERPPAS Principals Meeting: The Principals accepted the CCA and committed to coordinating as SERPPAS product**
- **June 11: SERPPAS Co-chairs distributed memo initiating coordination and signature**
 - **Goal: Collect all signatures by 31 July**
- **June 18: Military Services tasked for review, comment, and coordination of the CCA**
 - **Goal: Collect all signatures by 31 July**
- **June 25: Military Services given extension**
 - **Goal: Collect all signatures by 22 Aug....but this was not met completely**
- **DoD signatures completed December 08**



CCA Implementation

- Organize conservation approach and encourage uniformity in reporting
 - Coordination of the conservation actions and monitoring of the conservation actions
 - Annual assessment of Parties' progress towards implementing the conservation actions
 - Annual report and recommendations for CCA revisions and actions
 - Comprehensive and standardized reporting format for Parties to provide input



Everyone was on board

(in principle, at least)

- The devil, of course, is in the details
- Installation land management programs are generally locally developed and operated
- Great freedom may be given to local management
- Long range planning cycle completed for SE installations
 - Integrated Natural Resources Management Plan (INRMP) the basis for all actions
 - Does the CCA mean new INRMP is needed?



Some of the questions that came up along the way from the military



- Are the participants bound to specific actions?
 - Is the existing INRMP plan enough?
 - What will we have to do differently (if anything)?
 - Is there a budget? Who will pay?
- The CCA text describes how the military services will respond
 - Must EVERY installation do the same thing?
 - Can we change the separate service sections?
 - Who has the last word?
- Our attorneys say we cannot promise protection!
 - Land uses are not fixed, but respond to mission needs
 - Missions assigned and changed by Congress
 - Is there acceptable alternative wording?



Gopher Tortoise Team (GTT)

The “Managers” of the CCA

- Includes at least one representative from each Party
- State partners rotate role of Chair of the GTT (AL, FL, GA and SC)
 - AL chaired 2008-2009
 - FL was chair 2009-2010
 - GA took over in June 2010
- Chair’s responsibility is to coordinate the implementation and administration of the Agreement
- Develops and makes recommendations for conservation and research needs
- Receives input from partners
- Prepares annual report



Meeting of the GTT

- 1st annual meeting of the GTT was held in May 2009 at the Charles Elliot Wildlife Center in Georgia
 - Parties gave update on conservation efforts and progress
 - Discussion of future reporting format needed to ensure uniformity in reporting
 - Longleaf Alliance became a Party to the Agreement (CCA amended in Dec 2009)



CCA reporting framework

- Standardized reporting for all partners
 - Acres included by protection level
 - Acres managed and/or restored
 - Invasive exotics treated/eradicated
 - Population trends/survey results
 - Population manipulation
 - Research
 - Land conservation
 - Education and outreach
 - Legal protection measures
-



CCA reporting timeline

- Report format was approved by GTT Parties and the Department of Defenses' Conservation Committee in September 2009
- Dec 1, 2009 - report deadline to GTT Chair
- Jan 30, 2010 – comprehensive report submitted to the Southeast Regional Partnership for Planning and Sustainability (SERPPAS)
- June 2010 – 2nd annual meeting of GTT



1st annual report - results

- 12 of 13 reports submitted (last report received Jan 8)
- Approximately half of the reports submitted contained comprehensive information & data on gopher tortoise conservation efforts
- Includes approximately 2.5 million acres of GT habitat in its non-listed range (8 parties reporting)
- Various types of habitat management reported by 11 of the parties (forest thinning, RX burning, exotic removal, mechanical, longleaf pine restoration)
- Seven parties reported surveying and/or monitoring activities for gopher tortoises on their properties



1st annual report – results (con't.)

- Relocation and head start efforts were reported by 6 parties
- Research studies underway for 9 parties
- Approx 5,000 new acres preserved; 39,000 acres of habitat permanently lost
- Education and outreach materials were developed or distributed by 10 parties
- New legal protection in Alabama; new USFS policy/contract clause for Timber Sale Contracts protecting burrows from damaged by motorized vehicles; new conservation plan in South Carolina



Recommendations for future reporting

- A point of contact for each reporting party should be specified to the GTT Chair
- All parties should have access to the appropriate reporting software
- Data should be collected year-round in an ongoing manner to facilitate completion of a full report
- All parties should strive to meet the deadline jointly set by the Gopher Tortoise Team



CCA parties – as of June 2009



Public Works Technical Bulletin

PWTB 200-1-79

- **BENEFITS OF A CANDIDATE CONSERVATION AGREEMENT FOR THE GOPHER TORTOISE AND LESSONS LEARNED**

PUBLIC WORKS TECHNICAL BULLETIN 200-1-79
APRIL 2010

BENEFITS OF A CANDIDATE CONSERVATION
AGREEMENT FOR THE GOPHER TORTOISE
AND LESSONS LEARNED



- **http://www.wbdg.org/ccb/ARMYCOE/PWTB/pwtb_200_1_79.pdf**



Questions?



**Harold Balbach, Ph.D., C.P.Ag.
Certified Senior Ecologist
U.S. Army Engineer Research and
Development Center**

Hal.E.Balbach@usace.army.mil



BUILDING STRONG®