

U.S. Fish and Wildlife Service

# Red-cockaded Woodpecker Symposium IV

*January 27-31, 2003  
Savannah, Georgia*



## Monday, January 27, 2003

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### 8:00 **Opening Remarks**

Ralph Costa  
Red-cockaded Woodpecker Recovery Coordinator  
U.S. Fish and Wildlife Service

### 8:30 **Welcome and Introduction of Keynote Speakers**

Mr. Sam Hamilton  
Regional Director  
U.S. Fish and Wildlife Service

9:00 Major General David M. Mize  
Commanding General  
Marine Corps Base, Camp Lejeune

9:30 Mr. Tom L. Darden  
Director, Biological and Physical Resources  
U.S. Forest Service, Southern Region

10:00 *Break*

10:30 Mr. David Waller  
Director Wildlife Resources Commission  
Georgia Department of Natural Resources

11:00 Mr. Michael J. Bean  
Chairman, Wildlife Program  
Environmental Defense

11:30 Mr. Craig Manson  
Assistant Secretary of the Interior  
for Fish, Wildlife and Parks

12:00 *Lunch*

### 1:30 **Panel Discussion with Keynote Speakers**

2:00 *State of the red-cockaded woodpecker world -  
highlights of the past decade*  
Ralph Costa

2:20 *Early history of the listing of the  
red-cockaded woodpecker and the roles, actions,  
and consequences of states in the listing,  
downlisting and delisting of the species*  
Jerome A. Jackson

## Foundations of Recovery

- 2:40 *Fort Bragg's improved red-cockaded woodpecker tree data collection process*  
Elizabeth J. Evans
- 3:00 *Break*
- 3:30 *Counting in a descent of woodpeckers*  
Charles A. Hess, Paul Kubilis, and Jim Ruhl
- 3:50 *Sustainable forestry for the red-cockaded woodpecker's ecosystem*  
Frances C. James, Paul Richards, Eric L. Walters, Matthew Schrader, Charles A. Hess, and Kevin McClune
- 4:10 *Red-cockaded woodpecker recovery: an integrated strategy*  
D. Craig Rudolph, Richard N. Conner, and Jeffrey R. Walters
- 4:30 *Meta-populations: management strategies for recovery of red-cockaded woodpeckers*  
Roy S. Delotelle, Robert J. Epting, David L. Leonard, Jr., Ralph Costa, and Julie Hovis
- 4:50 *The North Carolina Sandhills conservation partnership: designing and implementing a landscape-based conservation plan to achieve recovery of a red-cockaded woodpecker population*  
Peter Campbell, Scott Belfit, Albert E. Bivings, Eric Wolters, and Fred Annand
- 5:10 *Red-cockaded woodpecker population data collection and dissemination in the information age*  
Nicole Edwards and Susan Miller
- 5:30 *Adjourn*

6:00-8:00 **Social**

### Military Initiatives - Large Populations

- 8:00 *Success of the Army's 1996 red-cockaded woodpecker management guidelines*  
Timothy A. Beaty, Albert E. Bivings, Theodore G. Reid, Terence L. Myers, Stephen D. Parris, Ralph Costa, Timothy J. Hayden, Thomas Ayers, Scott M. Farley, and William E. Woodsen
- 8:20 *Red-cockaded woodpecker management on Fort Bragg: then and now*  
Jacqueline J. Britcher and Janice M. Patten
- 8:40 *Landscape scale restoration and red-cockaded woodpecker recovery?*  
John Doresky, Michael Barron, and Pete Swiderek
- 9:00 *An intensively managed and increasing red-cockaded woodpecker population at Fort Stewart, Georgia*  
Lawrence D. Carlile, Timothy A. Beaty, Eric W. Spadgenske, Lee R. Mitchell, Sidney E. Puder, and Craig Ten Brink

### Private Land Initiatives

- 9:20 *From Cone's Folly to Brosnan Forest and beyond: protecting red-cockaded woodpeckers on private lands*  
Robert Bonnie
- 9:40 *Break*
- 10:10 *North Carolina Sandhills red-cockaded woodpecker safe harbor program: current status and lessons learned*  
Susan L. Miller, Peter Campbell, and Mark A. Cantrell
- 10:30 *South Carolina's safe harbor program for red-cockaded woodpeckers*  
A. Nicole Chadwick

### Status and Trends of Populations

- 10:50 *Demography and population trends of a small red-cockaded woodpecker population in South-Central Florida*  
Reed Bowman, David L. Leonard, Jr., Diana Swan, and Donelle L. Schwalm

- 11:10 *Status and management of red-cockaded woodpeckers at Camp Blanding training site, Florida*  
**John J. Kappes, Jr., John Davis, Michael D. Adams, James Garrison, Paul Catlett, Matthew Corby, and Ralph Costa**
- 11:30 *Population status and trend of red-cockaded woodpeckers on Eglin Air Force Base, Florida*  
**Carl J. Petrick and Bruce W. Hagedorn**
- 11:50 *Lunch*
- 1:20 *Red-cockaded woodpeckers on three wildlife management areas in Penninsular Florida: inventory, monitoring, and management*  
**Julie Hovis and David L. Leonard, Jr.**
- 1:40 *The red-cockaded woodpecker on the Savannah River Site: aspects of reproductive success*  
**Peter A. Johnston, Donald W. Imm, and William Jarvis**
- 2:00 *Restoration, status, and future of the red-cockaded woodpecker in the Francis Marion National Forest thirteen years after Hurricane Hugo*  
**Steven M. Lohr, William E. Taylor, and James C. Watson**
- 2:20 *Status and management of the red-cockaded woodpecker in Georgia: emphasis on private lands*  
**James C. Ozier, Wilson W. Baker, and Phil B. Spivey**
- 2:40 *Status of the red-cockaded woodpecker on private and public lands in the North Carolina Sandhills long term study sites: 1992-2001*  
**Kerry Sadler, J. H. Carter III, Brady Beck, Jeffrey R. Walters, and P.D. Doerr**
- 3:00 *Break*
- 3:30 *Unusual dynamics in a rapidly increasing population of red-cockaded woodpeckers at Camp Lejeune, North Carolina*  
**Jeffrey R. Walters**

- 3:50 *The red-cockaded woodpecker in the Northeastern Coastal Plain of North Carolina*  
J.H. Carter III and Kerry Sadler
- 4:10 *Decline and protection of the Virginia red-cockaded woodpecker population*  
Bryan D. Watts and Dana S. Bradshaw
- 4:30 *Red-cockaded woodpecker status and management: West Gulf Coastal Plain and Interior Highlands*  
D. Craig Rudolph, Richard N. Conner,  
Richard R. Schaefer, Daniel Saenz,  
Dawn K. Carrie, N. Ross Carrie,  
Ricky W. Maxey, Warren G. Montague, Joe Neal,  
Kenneth Moore, and John Skeen

### **Translocation**

- 4:50 *Effects of a mobile aviary in translocation success of red-cockaded woodpeckers*  
Kathleen E. Franzreb
- 5:10 *Rangewide success of red-cockaded woodpecker translocations*  
John W. Edwards and Ralph Costa
- 5:30 *Effects of translocation on the Apalachicola Ranger District donor population*  
Charles A. Hess
- 5:50 *Effects of translocation on a large red-cockaded woodpecker population*  
Greg Hagan, R. Todd Engstrom, Jim Cox, and Phil Spivey
- 6:10 *Effectiveness of recruitment clusters and intrapopulation translocation in promoting growth of the red-cockaded woodpecker population on Eglin Air Force Base, Florida*  
Jeffrey R. Walters, Kathleen E. Gault, Bruce Hagedorn, Carl J. Petrick, Louis F. Phillips, Jr., Joseph Tomcho, Jr., and Andrew Butler

6:30 *Adjourn*

- 7:30-  
10:00 **Banquet and Awards Ceremony**  
Distinguished Speaker Lindsay Thomas  
former U.S. Congressman from  
Georgia's 1st Congressional District

## Wednesday, January 29, 2003

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### Fort Stewart Field Trip

- 7:30 Meet in conference room
- 8:00 Board buses
- 8:30 Depart for Fort Stewart
- 4:00 Depart Fort Stewart for Red Gate Plantation
- 5:00 Arrive Red Gate Plantation
- 9:00 Depart Red Gate Plantation for hotel

## Thursday, January 30, 2003

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### Saving Small Populations

- 8:00 *The first reintroduction of red-cockaded woodpeckers into unoccupied habitat: a private land and conservation success story*  
Greg Hagan, Ralph Costa, and Michael K. Phillips
- 8:20 *Cleaving Adam's rib: red-cockaded woodpecker restoration on Ichauway*  
Jonathan M. Stober and Steven B. Jack
- 8:40 *International Paper's habitat conservation plan for the red-cockaded woodpecker: implementation and early success*  
Craig W. Hedman, Jeremy R. Poirier, Paul E. Durfield, and Mark A. Register
- 9:00 *The Chickasawhay Ranger District story: saving a small population from extirpation*  
Carol Brown and Stan Simpkins
- 9:20 *Withlacoochie State Forest Croom Tract red-cockaded woodpecker recovery effort*  
Vincent Morris and Colleen Werner
- 9:40 *Break*
- 10:10 *Red-cockaded Woodpecker recovery efforts in an isolated and small South Carolina Sandhills population*  
Steven M. Lohr
- 10:30 *Red-cockaded woodpecker conservation on Fort Jackson military installation: a small population's response to intensive management in the Sandhills of South Carolina*  
Timothy G. Marston and Douglas M. Morrow

10:50 *The rise and fall of the red-cockaded woodpecker population in Kentucky: a chronology of events preceding extirpation*  
Lynda M. Mills, Kimberly J. Feltner, and Timothy O. Reed

### **Cavities - Cavity Trees - Cavity Communities**

11:10 *The red-cockaded woodpecker cavity tree: a very special pine*  
Richard N. Conner, D. Craig Rudolph, Daniel Saenz, and Robert H. Johnson

11:30 *Dynamics of cavity excavation by red-cockaded woodpeckers*  
Sergio R. Harding and Jeffrey R. Walters

11:50 *Lunch*

1:20 *Characteristics of initial roost cavities chosen by fledgling red-cockaded woodpeckers*  
Joseph C. Neal

1:40 *Influence of artificial cavity age on red-cockaded woodpecker translocation success*  
Daniel Saenz, Richard R. Schaefer, Richard N. Conner, M. Stephen Best, D. Craig Rudolph, and Dawn K. Carrie

2:00 *Long-term efficacy of artificial cavities for red-cockaded woodpeckers: lessons learned from Hurricane Hugo*  
Robert G. Hooper, William E. Taylor, and Susan C. Loeb

2:20 *Changes in status of cavity trees on the Hobcaw Forest between 1989 and 2001*  
Thomas M. Williams, Donald J. Lipscomb, and George K. Chastain

2:40 *Inoculating red heart fungus (*Phellinus pini*) to create nesting habitat for red-cockaded woodpeckers*  
Steven B. Jack, Catherine G. Parks, Jonathan M. Stober, and R. Todd Engstrom

3:00 *Break*

3:30 *Use of modified artificial cavities to access red-cockaded woodpecker nests*  
Felicia J. Sanders, Ralph Costa, and David L. Otis

3:50 *Community interactions associated with red-cockaded woodpecker cavities*  
John J. Kappes, Jr.

- 4:10 *Population dynamics of red-cockaded woodpeckers and cavity kleptoparasites: implications of cavity experiments in the North Carolina Sandhills*  
Jeffrey R. Walters, J. H. Carter, III, and Phillip D. Doerr
- 4:30 *Southern flying squirrel use of artificial red-cockaded woodpecker cavities at International Papers Southlands Forest: the past, present, and future*  
Jeremy Poirier, Craig Hedman, and Mark Register
- 4:50 *Use of water-inundated red-cockaded woodpecker cavities by other organisms*  
Eric L. Walters and Jamie M. Kneite
- 5:10 *Adjourn*

5:30 - 6:30 **Poster Session**

## **Friday, January 31, 2003**

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### **Special Presentation**

- 8:00 *Flying squirrel associated typhus fever: an old scourge from a new source*  
Mary G. Reynolds

### **Habitat Management - Habitat Relationships**

- 8:20 *Habitat management area prescription process on Fort Bragg and Camp Mackall: first 10-year cycle*  
John Merk
- 8:40 *Development of a geographic information system based model of red-cockaded woodpecker habitat*  
Donald J. Lipscomb and Thomas M. Williams
- 9:00 *Red-cockaded woodpecker home ranges and foraging partitions*  
Ken M. Convery and Jeffrey R. Walters
- 9:20 *Habitat management for the red-cockaded woodpecker on Plum Creek Timber Company forestlands in Arkansas, Louisiana, and Mississippi*  
Kit Hart, Lorin Hicks, Joe McGliney, and Richard Stich

- 9:40** *Break*
- 10:10** *Red-cockaded woodpecker surveying and management in atypical habitat, Tate's Hell Wildlife Management Area*  
**J. Daniel Sullivan, Jr.**
- 10:30** *Forest stand selection by foraging red-cockaded woodpeckers*  
**Robert J. Epting, Roy S. Delotelle, and David L. Leonard, Jr.**
- 10:50** *Habitat preferences of red-cockaded woodpeckers at the Savannah River Site, South Carolina*  
**Kathleen E. Franzreb**
- 11:10** *Red-cockaded woodpecker nutritional status in relation to habitat: evidence from ptilochronology and body mass*  
**Richard R. Schaefer, D. Craig Rudolph, Richard N. Conner, and Daniel Saenz**
- 11:30** *Comparison of federal foraging guidelines to mature timber stands in the Red Hills region*  
**James Cox and R. Todd Engstrom**
- 11:50** *Foraging habitat and reproductive success in red-cockaded woodpecker groups in Southeastern Georgia*  
**Eric W. Spadgenske, C. Ray Chandler, and Stacy A. Lindemann-Mitchell**
- 12:10** *Lunch*

### **Reproductive Ecology**

- 1:40** *Factors contributing to variation in fledgling production in central Florida red-cockaded woodpeckers*  
**David L. Leonard, Jr., Roy S. DeLotelle, and Robert J. Epting**
- 2:00** *Fledgling sex ratios and population demographics of red-cockaded woodpeckers*  
**Robert J. Epting, Roy S. Delotelle, and David L. Leonard, Jr.**
- 2:20** *Hatching failure and embryonic mortality within a red-cockaded woodpecker population in South Carolina*  
**Nancy E. Jordan, David L. Otis, Ralph Costa, and Sidney A. Gauthreaux**

2:40 *Does partial brood loss in three central Florida red-cockaded woodpecker populations qualify as brood reduction?*  
Roy S. Delotelle, David L. Leonard, Jr., and Robert J. Epting

3:00 *Influence of habitat and number of nestlings on partial brood loss in red-cockaded woodpeckers*  
James R. McCormick, Richard N. Conner, D. Brent Burt, and Daniel Saenz

3:20 *Break*

### **Prey - Fire - Community Ecology**

3:50 *Availability and abundance of prey for the red-cockaded woodpecker*  
James L. Hanula and Scott Horn

4:10 *Arthropod density and biomass in longleaf pines: effects of pine age and hardwood midstory*  
Richard N. Conner, Christopher S. Collins, Daniel Saenz, Toni Trees, Richard R. Schaefer, and D. Craig Rudolph

4:30 *Arthropod communities: a possible link between fire history and red-cockaded woodpeckers*  
T. Brandon Taylor and Jeffrey R. Walters

4:50 *Shortleaf pine-bluestem restoration for red-cockaded woodpeckers in the Ouachita Mountains: implications for other taxa*  
Ronald E. Thill and D. Craig Rudolph

5:10 *Composition of mixed-species foraging flocks associated with red-cockaded woodpeckers*  
Richard R. Schaefer, D. Craig Rudolph, Daniel Saenz, Richard N. Conner, and Shirley J. Burgdorf

### **5:30 Wrap-up and Final Comments**

Ralph Costa

6:00 *Adjourn*

*Posters will be  
displayed all week.  
The official poster  
session, when  
authors will be  
expected to be  
present to answer  
questions, will be  
5:30 – 6:30 pm  
on Thursday,  
January 30, 2003.*

- *Effects of fog oil obscurant on red-cockaded woodpecker surrogate species*  
**Harold Balbach, Crystal Driver, and Keturah Reinbold**
- *The role of the red-cockaded woodpecker cavity in the cavity-nesting bird community: a nest-web approach*  
**Lori A. Blanc, Robert Emerson, and Jeffrey R. Walters**
- *Habitat management and drought: effects on red-cockaded woodpecker status at Goethe State Forest*  
**Robin Boughton**
- *Effects of removing subadult birds for translocation on an East Texas red-cockaded woodpecker donor population*  
**Dawn K. Carrie**
- *Long-term management of a red-cockaded woodpecker population on Temple-Inland property in Eastern Texas*  
**N. Ross Carrie**
- *Gray rat snakes, do they specifically target red-cockaded woodpecker nestlings for depredation?*  
**Jonathan Cole**
- *Selected forage range characteristics for nine groups of red-cockaded woodpeckers on Fort Benning, Georgia*  
**Gary Cress**
- *Red-cockaded woodpecker roost cavity defense during the non-breeding season*  
**John M. Davis, Kathryn E. Sieving, and John J. Kappes, Jr.**
- *Assessment of training noise impacts on the red-cockaded woodpecker*  
**David K. Delaney, Larry L. Pater, Robert J. Dooling, Bernard Lohr, Beth F. Brittan-Powell, Linton L. Swindell, Tim A. Beaty, Larry D. Carlile, Eric W. Spadgenske, Robert H. Melton and Bruce A. MacAllister**
- *Red-cockaded woodpecker management on Fort Gordon, Georgia*  
**Robert L. Drumm, Ken Boyd, and Steven N. Camp**
- *Evaluation of a mobile aviary to enhance translocation success of red-cockaded woodpeckers*  
**John Edwards, Yvette Mari, and Webb Smathers**

- *Red-cockaded woodpecker tree data collection process: combining spatial and tabular data*  
**Elizabeth J. Evans and Peter J. Hickman**
- *Using data from remote sensing to conduct red-cockaded woodpecker foraging habitat assessments*  
**Bruce Hagedorn, Steve Laine, Vince Sclafani, and Kevin Heirs**
- *Effects of maneuver training activities on red-cockaded woodpecker populations on Fort Stewart, Georgia*  
**Timothy J. Hayden, Robert H. Melton, Beth Willis, B. (Marty) Martin III, and Tim Beaty**
- *The red-cockaded woodpecker in Florida: a 2000 update*  
**Julie A. Hovis and Diana Swan**
- *The status and management of red-cockaded woodpeckers in Big Cypress National Preserve*  
**Deborah Jansen and Steve Schulze**
- *The Longleaf Alliance: a regional longleaf ecosystem restoration partnership*  
**Rhett Johnson, Dean Gjerstad, Mark Hains, and John McGuire**
- *The St. Marks National Wildlife Refuge/Southern Wakulla Ranger District red-cockaded woodpecker subpopulation: population trends and future management strategies*  
**Michael Keys and Joe Reinman**
- *Effects of translocation on nesting success of novice breeders*  
**Gina C. Levesque, Claudia F. Bailey, and Warren G. Montague**
- *Seasonal use of red-cockaded woodpecker cavities by southern flying squirrels*  
**Susan C. Loeb and Deanna L. Ruth**
- *Public opinions of threatened and endangered species conservation in the Southeastern United States*  
**David C. Guynn, Jr., Carmen D. Martin, Ralph Costa, and Charles Chancellor**
- *The safe harbor program for red-cockaded woodpeckers in South Carolina: an incentive to conservation for private landowners*  
**Jeffrey Pompe and Travis Knowles**

- *Glaucomys volans*, *Rickettsia prowazekii*, and epidemic typhus fever  
**Mary Reynolds**
- *Field testing passive southern flying squirrel traps in active and inactive red-cockaded woodpecker clusters on the Calcasieu Ranger District, Kisatchie National Forest*  
**Douglas J. Rhodes**
- *Translocating red-cockaded woodpecker groups in spring: Plum Creek Timber Company habitat conservation plan*  
**David M. Richardson, Kit Hart, Warren Montague, and Jon Wessman**
- *Monitoring red-cockaded woodpecker and southern flying squirrel interactions*  
**Thomas S. Risch and Susan C. Loeb**
- *Inbreeding depression or resource limitation: patterns of variation in hatching failure in red-cockaded woodpeckers at Avon Park Air Force Range*  
**Donelle L. Schwalm and Reed Bowman**
- *The drum of red-cockaded woodpeckers*  
**Robert P. Stark and D. J. Dodenhoff**
- *Use of external nesting boxes by roosting red-cockaded woodpeckers*  
**William E. Taylor and Robert G. Hooper**
- *Fire-induced mortality of red-cockaded woodpecker cavity trees*  
**Dale K. Thurber, Bruce W. Hagedorn, and J. Kevin Hiers**
- *Flying squirrel catcher for removing southern flying squirrels from red-cockaded woodpecker cavities*  
**Diane Tyrone**
- *Burning and chopping for woodpeckers and wiregrass?*  
**Joan L. Walker, Brian P. van Eerden, Dave Robinson, and Mike Hausch**
- *Analysis of sub adult male dispersal and helping behavior in male red-cockaded woodpeckers on the Fort Polk Military Reservation*  
**Monica T. Wallace and Stephanie A. Stephens**

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