

Cerulean Warbler Technical Group fosters real conservation progress for a challenged species

Paul B. Hamel

Center for Bottomland Hardwoods Research

P. O. Box 227, 432 Stoneville Rd.

Stoneville, MS 38776 USA

Phone: (662) 686-3167

FAX: (662) 686-3195

email: phamel@fs.fed.us

with

T. Bently Wigley, Deanna K. Dawson, Patrick D. Keyser, David Mehlman

Actually None of the Authors are
in the building

Actually None of the Authors are in the building

Hamel has the flu and hopes only to infect
you with the contagious ideas of the Cerulean
Warbler Technical Group and its process



ceruleanwarbler.org

Our task today

- Present a short history of the Cerulean Warbler Technical Group

Our task today

- Present a short history of the Cerulean Warbler Technical Group
- Introduce the symposium to follow
 - A coordinated summary
 - of some of the breeding season research
 - conducted as part of the Cerulean Warbler Conservation Initiative

Preliminary “everyone knows it”s

- We draw our circles to include collaborators rather than to exclude opponents



mariewin.server304.com

Preliminary “everyone knows it”s

- We draw our circles to include collaborators rather than to exclude opponents
- We do our best to be accountable at the large scale for ourselves and our actions

Preliminary “everyone knows it”s

- We draw our circles to include collaborators rather than to exclude opponents
- We do our best to be accountable at the large scale for ourselves and our actions
- Which means acknowledging some difficult truth, like the following

Coal is our primary source of electricity

Ceruleans nest on top of rich deposits of it



Lots of us enjoy coffee



**Ceruleans find
adequate
nonbreeding
habitats in shade
coffee plantations**



between these dangles the birds' fate

Cerulean Warbler Conservation depends jointly on



– **Ornithological knowledge** of the birds

Integrating concepts of ornithology, forestry, and conservation is crucial to developing conservation plans for Cerulean Warbler. Ornithology contributes empirical knowledge and theory concerning the behavior of the birds, its relation to habitat, foraging patterns, predators, nest parasites, and external factors such as the perils of migration. A central contribution derived from ornithological practice is the notion of forest fragmentation and its effects.

Forestry contributes a detailed appreciation of the inexorable growth of trees through time, the capacity of skilled practitioners to groom this growth toward specific targets of vegetation structure, and expertise to utilize the by-products of this grooming to underwrite the costs of achieving the desired structure.

Ornithology and forestry meet in the expression of the desired vegetation or habitat structure, including the process involved in producing that structure.

Conservation is the outcome in which the application of forestry techniques to achieve the ornithologically determined structure results in the maintenance of the population at an acceptable level. The North American Landbird Conservation Plan established a target level as twice the population estimated to occur in 1995.

Because the knowledge of the precise habitat structure requisite to this outcome is limited, the process of implementing conservation of Cerulean Warbler must be an adaptive one, both locally and regionally.

Cerulean Warbler Conservation depends jointly on



- Ornithological knowledge of the birds
- **Management skill** manipulating forest landscapes

Integrating concepts of ornithology, forestry, and conservation is crucial to developing conservation plans for Cerulean Warbler. Ornithology contributes empirical knowledge and theory concerning the behavior of the birds, its relation to habitat, foraging patterns, predators, nest parasites, and external factors such as the perils of migration. A central contribution derived from ornithological practice is the notion of forest fragmentation and its effects.

Forestry contributes a detailed appreciation of the inexorable growth of trees through time, the capacity of skilled practitioners to groom this growth toward specific targets of vegetation structure, and expertise to utilize the by-products of this grooming to underwrite the costs of achieving the desired structure.

Ornithology and forestry meet in the expression of the desired vegetation or habitat structure, including the process involved in producing that structure.

Conservation is the outcome in which the application of forestry techniques to achieve the ornithologically determined structure results in the maintenance of the population at an acceptable level. The North American Landbird Conservation Plan established a target level as twice the population estimated to occur in 1995.

Because the knowledge of the precise habitat structure requisite to this outcome is limited, the process of implementing conservation of Cerulean Warbler must be an adaptive one, both locally and regionally.

Cerulean Warbler Conservation depends jointly on



- Ornithological knowledge of the birds
- Management skill manipulating forest landscapes
- **Conscious attention** to economic needs of inhabitants

Integrating concepts of ornithology, forestry, and conservation is crucial to developing conservation plans for Cerulean Warbler. Ornithology contributes empirical knowledge and theory concerning the behavior of the birds, its relation to habitat, foraging patterns, predators, nest parasites, and external factors such as the perils of migration. A central contribution derived from ornithological practice is the notion of forest fragmentation and its effects.

Forestry contributes a detailed appreciation of the inexorable growth of trees through time, the capacity of skilled practitioners to groom this growth toward specific targets of vegetation structure, and expertise to utilize the by-products of this grooming to underwrite the costs of achieving the desired structure.

Ornithology and forestry meet in the expression of the desired vegetation or habitat structure, including the process involved in producing that structure.

Conservation is the outcome in which the application of forestry techniques to achieve the ornithologically determined structure results in the maintenance of the population at an acceptable level. The North American Landbird Conservation Plan established a target level as twice the population estimated to occur in 1995.

Because the knowledge of the precise habitat structure requisite to this outcome is limited, the process of implementing conservation of Cerulean Warbler must be an adaptive one, both locally and regionally.

Cerulean Warbler Conservation depends jointly on



- Ornithological knowledge of the birds
- Management skill manipulating forest landscapes
- Conscious attention to economic needs of inhabitants
- **Conservation wisdom** to combine these

Integrating concepts of ornithology, forestry, and conservation is crucial to developing conservation plans for Cerulean Warbler. Ornithology contributes empirical knowledge and theory concerning the behavior of the birds, its relation to habitat, foraging patterns, predators, nest parasites, and external factors such as the perils of migration. A central contribution derived from ornithological practice is the notion of forest fragmentation and its effects.

Forestry contributes a detailed appreciation of the inexorable growth of trees through time, the capacity of skilled practitioners to groom this growth toward specific targets of vegetation structure, and expertise to utilize the by-products of this grooming to underwrite the costs of achieving the desired structure.

Ornithology and forestry meet in the expression of the desired vegetation or habitat structure, including the process involved in producing that structure.

Conservation is the outcome in which the application of forestry techniques to achieve the ornithologically determined structure results in the maintenance of the population at an acceptable level. The North American Landbird Conservation Plan established a target level as twice the population estimated to occur in 1995.

Because the knowledge of the precise habitat structure requisite to this outcome is limited, the process of implementing conservation of Cerulean Warbler must be an adaptive one, both locally and regionally.



pbase.com

Our Mechanism of action



- Coalition of biologists, managers, scientists

Who we are



- A voluntary group
- Everyone who participates does so of their own volition

Who we are



- A voluntary group
- more than 100 individuals, universities, nonprofit organizations, and government agencies

Who we are



- A voluntary group
- more than 100 individuals, universities, nonprofit organizations, and government agencies
- Representing at least 7 countries
 - Canada
 - USA
 - Venezuela
 - Colombia
 - Ecuador
 - Peru
 - Bolivia
- better representation of migratory stopovers needed

Who we are



- A voluntary group
- more than 100 individuals, universities, nonprofit organizations, and government agencies
- Representing at least 7 countries
- Amazingly it is an *ad hoc* entity, with a fluid composition



pbase.com



- **Our Task:**
- Develop comprehensive, technically sound approach to Cerulean Warbler conservation



- **Our Structure comprises four subcommittees:**

- Breeding Season Research

- This is the source of the material to be presented in our symposium today



winterwoman.net



- **Our Structure comprises four subcommittees:**

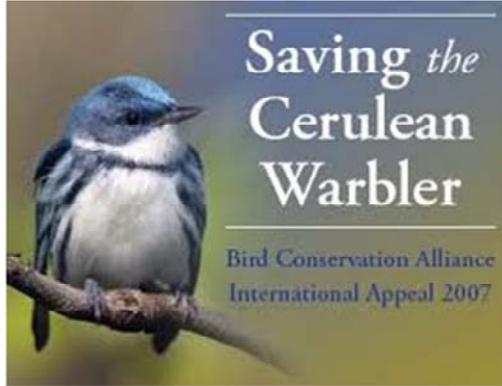
- Breeding Season Research,
- Breeding Season Monitoring,
from which grew our activities in support of the





- **Our Structure comprises four subcommittees:**

- Breeding Season Research,
- Breeding Season Monitoring,
- Breeding Season Conservation, and



coffeehabitat.com



- **Our Structure comprises four subcommittees:**

- Breeding Season Research,
- Breeding Season Monitoring,
- Breeding Season Conservation, and
- Nonbreeding Season Issues,
this latter called “El Grupo Cerúleo”
for which a little history will be shared here

In the beginning, sort of,
or at least at the start of
the current millenium



We began in Knoxville, Tennessee, USA, June 2001





- We named and organized our committee structure in Shepherdstown, WV, Dec 2002



- We named and organized our committee structure in Shepherdstown, WV, Dec 2002
- **We returned to Shepherdstown, WV, in summer 2006 to assist the USFWS evaluate the petition to list Cerulean Warbler as a Threatened Species under the US Endangered Species Act and prepare a species conservation plan**

DEPARTMENT OF THE INTERIOR

Fish and Wildlife Service

50 CFR Part 17

Endangered and Threatened Wildlife and Plants: 12-Month Finding on a Petition To List the Cerulean Warbler (*Dendroica cerulea*) as Threatened With Critical Habitat

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Notice of a 12-month petition finding.

SUMMARY: We, the U.S. Fish and Wildlife Service (Service), announce a 12-month finding on a petition to list the cerulean warbler (*Dendroica cerulea*) as threatened under the Endangered Species Act of 1973, as amended (Act). The petition also asked that critical habitat be designated for the species. **After reviewing the best available scientific and commercial information, we find that the petitioned action is not warranted.** We ask the public to submit to us any new information that becomes available concerning the status of, or threats to, the species. This information will help us monitor and encourage the conservation of this species.

DATES: The finding announced in this document was made on November 28, 2006.

ADDRESSES: Comments and materials received, as well as supporting documentation used in the development

Listing of Cerulean Warbler as a Threatened Species under the Endangered Species Act is not warranted

Federal Register, 6 December 2006

Our technical information and expertise were cornerstones of the knowledge base for the decision making process



We reconvened in Morgantown,
West Virginia, USA, Feb 2007



All 7 countries represented



The Cerulean Warbler Conservation Action Plan resulted from the Summer 2006 and Valentine's Day 2007 meetings

**A Conservation Action Plan
for the
Cerulean Warbler (*Dendroica cerulea*)**

*produced for the
USFWS Division of Migratory Bird Management
Focal Species Program*

Revised version – 30 June 2007





We met in Bogotá and San
Vicente de Chucurí, COLOMBIA,
Oct 2008



 In Bogotá we met in the offices of the Colombian National Coffee Federation



Juan Valdez and his mule Conchita

- The Cerulean Warbler is the link to a very important ARRI partner - the coffee industry south of the border
- the Cerulean is a small, neo-tropical, migratory songbird that breeds throughout the central and eastern U.S...
- and then migrates to central and south America
- ARRI worked with the US Fish and Wildlife Service and the Cerulean Warbler Technical Group
- to bring the coal industry and the coffee industry together...
- to explore the possibility of a partnership that links the two industries
- That explores solutions to habit loss...
- Through reforestation with the FRA instead of grassland reclamation
- And shade coffee instead of sun coffee



These meetings were instrumental in the development of the Nonbreeding Season Conservation Plan



They also allowed us to link the children of coffee-growers to the children of coal miners in a Pen-Pal project



The Appalachian Regional Reforestation Initiative



Many of us are hopeful that degraded minelands can in future become productive forest habitat for Ceruleans through the work of the ARRI

Restoring healthy productive forests on mined land

<http://arri.osmre.gov>

- The Appalachian Regional Reforestation Initiative (or ARRI) was created in 2004...
- to encourage the restoration of healthy, productive forests ...
- On active and abandoned mine lands in the eastern US



Since 2004...
about 70 million trees have been planted
on about 103,000 acres in ARRI projects

- So ARRI is **forward** looking...
- In other words... we're working hard to get the active mining industry...
- to plant trees as they mine and reclaim new ground... from this point forward...
- And we are enjoying some degree of success...
- Since we started in 2004, we estimate that about 70 million trees have been planted...
- and about 103 thousand acres restored back to forests...
- Trees that might otherwise not have been planted...
- An effort that has attracted a lot of attention to ARRI...
- A lot of regional... national... and even international attention...



What we have Received

Grant Period	NFWF Spent	Matching Funds
2005-2006	203,844	147,750
2006-2007	204,470	144,710
2007-2008	210,896	145,313
2008-2011	550,000	546,856 spent to date (out of 650,000 budgeted)
Total	~\$1,169,000	~\$ 985,000 (of ~\$1,090,000)

Exclusive of any time or funds from US Federal sources, eg. USAID, USFS, USFWS



What we have Received

Grant Period	NFWF Spent	Matching Funds
Much of the match is in-kind contributions from Latin Americans		
We have been privileged to receive much more than \$2,000,000 for this work		
Total	~\$1,169,000	~\$ 985,000 (of ~\$1,090,000)

Additional Activities of Numerous cooperators are not included in the totals



Cooperators are too numerous to name adequately

- American Bird Conservancy
- Aves & Conservacion
- Partners in Flight Costa Rica
- Daniel De Jesús García León
- Katie Fallon
- Optics for the Tropics
- Corantioquia
- Participants in Cerulean Warbler Summit 3
- La Escuela de Ingeniería de Antioquia
- Indiana University of Pennsylvania
- Kentucky Department of Fish and Wildlife Resources
- MeadWestvaco Corporation
- NCASI
- Northern Allegheny Conservation Association
- Ohio Ornithological Society
- OSU School of Environment and Natural Resources
- OH Agricultural and Research Development
- Ohio State University
- PA Department of Conservation and Natural Resources
- Plum Creek Timber Company
- ProAves
- The Nature Conservancy
- University of Tennessee
- West Virginia University



- and Many More

Gabriel Colorado

We do what it takes to get the job done



kislam.iweb.bsu.edu

What we did with the \$\$

- **Rangewide**
 - Technical basis aided US FWS to evaluate petition to list species as Threatened



[flickr.com](https://www.flickr.com)

What we did with the \$\$

- **Rangewide**

- Technical basis aided US FWS to evaluate petition to list species as Threatened
- Provided data and information to comprehensive conservation planning process by USFWS as well as

What we did with the \$\$

- **Rangewide**

- Technical basis aided US FWS to evaluate petition to list species as Threatened

- Provided data and information to comprehensive conservation planning process by USFWS as well as

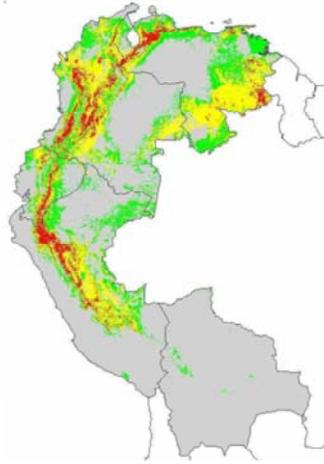
American Bird Conservancy/ ProAves Colombia for nonbreeding range conservation plan

What we did with the \$\$

- **Rangewide**

- Technical basis aided US FWS to evaluate petition to list species as Threatened
- Provided data and information to comprehensive conservation planning process by USFWS as well as American Bird Conservancy/ ProAves Colombia for nonbreeding range conservation plan
- Established link to Coal-Coffee partnership opportunities with ARRI, North American industry and Andean coffee producers

What we did with the \$\$



Non-breeding Grounds

- Developed a model of nonbreeding distribution

What we did with the \$\$



Dacnis de cara negra - Dacnis Ayuda



Non-breeding Grounds

- Developed a model of nonbreeding distribution
- Rigorously field-tested the model, which identified links among resident and migratory birds

What we did with the \$\$

The Natural Preserve for the birds, "Little Sky-Blue Princess"



Non-breeding Grounds

- Developed a model of nonbreeding distribution
- Rigorously field-tested the model
- Supported cooperators and members in establishing two reserves to protect habitat for this species and resident endemic birds



Located near San Vicente de Chucurí, Dept. Santander, Colombia

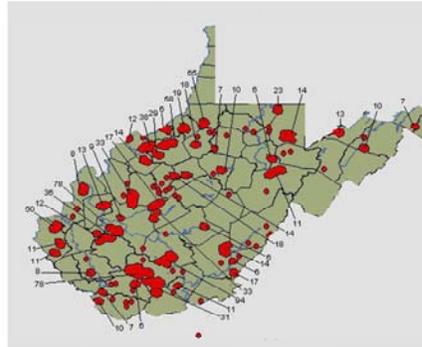


What we did with the \$\$

Breeding Grounds

- Solidified and expanded Cerulean Warbler Atlas Project (CEWAP)

CEWAP Populations in West Virginia, 1997–2000





Cerulean Warbler (Vulnerable Nearctic migrant)

Neomorphus.com

What we did with the \$\$

Breeding Grounds

- Solidified and expanded Cerulean Warbler Atlas Project
- Conducted the large-scale Forest Management Experiment that is the focus of this Symposium

Following presentations in this symposium report on that experiment





Webs.wichita.edu



We next meet in Cusco, Perú,
November 8-14 2011



Consider joining us!

A couple of one-liners

The Best Solutions Pay for Themselves

A couple of one-liners

The Best Solutions Pay for Themselves

**Don't let the Good
Get in the way of the BEST**

The Mother Lode of Wisdom

There is no end to the Progress
We can make Together
If it Doesn't Matter
Who gets the Credit



Writing the nonbreeding
season distribution model
Quito, ECUADOR, Nov 2005

Don't forget to say Thank You

to your Funders
and
to Each Other

Acknowledgments – An UNDERSTATEMENT



A never ending list...

As we conclude our “interaction”



knoxnews.com

Birds are Fabulously and Tenuously Popular



Interest in birds is an enjoyable activity of millions of our fellow citizens, who are willing to spend substantial amounts of money on this pastime. These expenditures, and the variety of goods on the market, indicate the role that this interest continues to play in our economy. This toy Cerulean Warbler is remarkably similar to the animal after which it is patterned. Understandably, people interested in the birds are also interested in their status, and pay attention to reports that indicate when populations are observed to be in steep declines.



Juliepfirsch.com

cerulean warbler weekend

june 4 - 6, 2010
barry county, michigan

seminars
field trips
butterfly class
photo workshop
peddler glass creek
cerulean warbler tours
flycatcher species tours
henslow's sparrow tours

keynote presentation:
gail hanel, USDA wildlife biologist

locations:
otis farm bird sanctuary
ronald warner sanctuary
pierce cedar creek institute
destinations throughout barry county

www.ceruleanwarbler.org

sponsored by



sponsored by



Blue Lake Club & Cottages



We found a
nest on the
fieldtrip
that
weekend

Ceruleanwarbler.org

Ceruleans are very high in the public eye

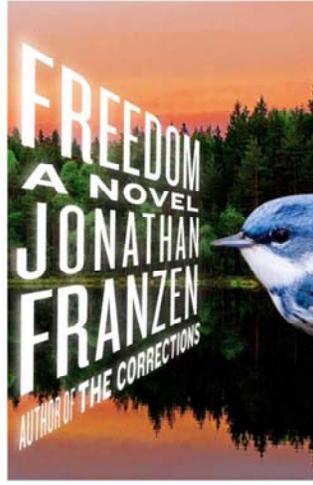


hafapea.posterous.com



They shamelessly flash their very long undertail coverts

pbase.com



Bookpage.com

Chapter 1



00:37 DVD

The Big Picture

Written by PETER BAKALIAN



Coffeehabitat.com

Coal is our primary source of electricity

Ceruleans nest on top of rich deposits of it



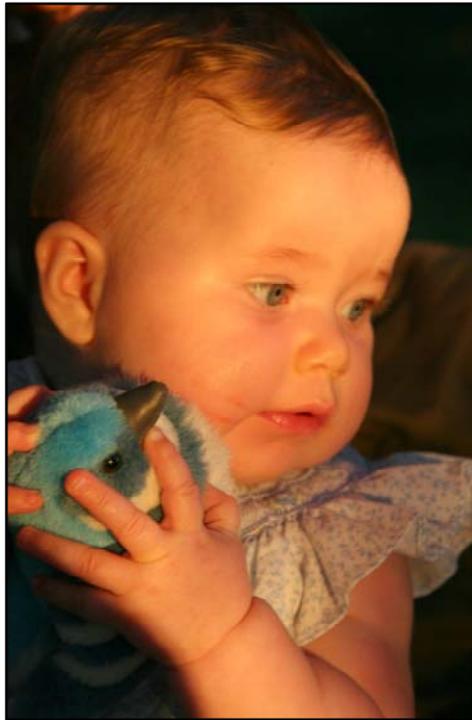
Lots of us enjoy coffee



**Ceruleans find
adequate
nonbreeding
habitats in shade
coffee plantations**



between these dangles the birds' fate



**What we do
now will create
the conditions in
which our
descendents
find this species**

Acknowledgments: A contribution such as this one is the result of extensive discussion, even when authored by a single individual. I am in awe of the expertise and insight of my colleagues in the Cerulean Warbler Technical Group, some of whose wisdom hopefully has rubbed off on me. Kamal Islam, Amanda Rodewald and Scott Stoleson very kindly provided some of their unpublished data for my use. Deanna Dawson, Dave Mehlman, Steve Meadows, Jason Jones, Kamal Islam, and Petra Wood helped me to improve my ideas. Part of this work was supported by a grant from the National Fish and Wildlife Foundation to the Cerulean Warbler Technical Group, administered by Bently Wigley of The National Council for Air and Stream Improvement, Inc.



Marja Bakermans, nature.org



Any Questions?