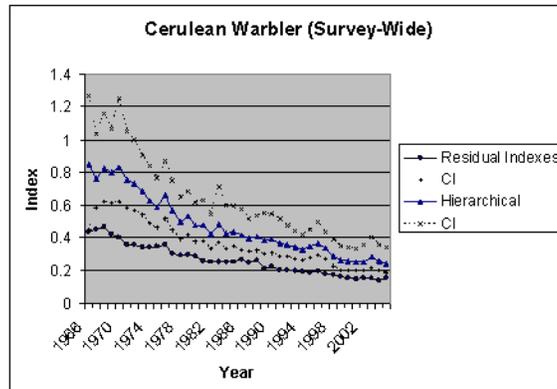


# Forestry and Surface Mining on the Breeding Grounds

How Do Breeding Season Conservation  
Issues Provide Opportunities For  
Nonbreeding Season Partnerships?

## The Concern

- Declines in breeding season detections of Cerulean and Golden-winged Warblers have led to strong interest in conservation measures that have the potential to reverse these trends



## A Complex Problem

- Conservation of these species is challenging because of the many complexities involved
  - Complex causes for the decline
  - Many stakeholders involved
  - Many possible conservation solutions

## A Complex Problem

- Examples of the many breeding grounds stakeholders
  - Forest landowners
  - Consumptive and non-consumptive forest users
  - ENGOs
  - Mining companies
  - Consumers who use products derived from natural resources
  - Public agencies
  - Universities
  - Multiple jurisdictions (e.g., states, nations)

## A Complex Problem

- There many uncertainties associated with complex problems
  - Which limiting factor is most important?
  - Can we conserve these species and also use our natural resources?
  - Etc.

## A Complex Problem

- Diverse partners usually have varied reasons for interest in a conservation issue such as a declining species, e.g.,
  - Prevent regulatory action
  - Exercise or expand regulatory authority
  - Use the species as a surrogate to promote support for their conservation agenda

## A Complex Problem

- Are complex problems a challenge, an opportunity, or both?
- How do we develop and implement successful conservation actions in a complex environment and when there are so many uncertainties?

## Collaboration

- Collaboration (i.e., partnerships) is often required to successfully address complex conservation problems
  - col·lab·o·rate
    1. to work jointly with others or together especially in an intellectual endeavor
    2. to cooperate with or willingly assist an enemy of one's country and especially an occupying force
    3. to cooperate with an agency or instrumentality with which one is not immediately connected

Merriam-Webster Dictionary

## Partnerships

- On the breeding grounds, industry, agencies, and non-government organizations have formed many partnerships to address conservation issues
  - Black Bear Conservation Committee
  - Applegate Partnership
  - Karner Blue Butterfly Habitat Conservation Plan
  - Project SHARE
  - ACE Basin Task Force (South Carolina)
  - Altamaha Cooperative for Forest Resource Stewardship and Research

## Case Study: Project SHARE

- **Salmon Habitat And River Enhancement**
  - A non-profit organization created by concerned landowners, salmon anglers, businesses, and government agencies
  - Its mission is to conserve and protect Atlantic salmon habitat in the downeast rivers of Maine

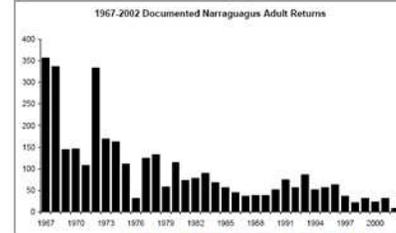


Atlantic salmon (*Salmo salar*)

## Case Study: Project SHARE

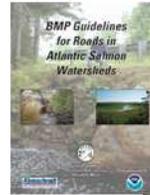
- The conservation issue behind the partnership
  - Long-term decline in Atlantic salmon returns
  - Potential listing as an endangered species
  - Concerns about potential impacts of human activities
    - Water withdrawal for agriculture
    - Dams
    - Recreational fishing
    - Forestry

Figure 4. Documented Adult returns to the Narragansett River



## Case Study: Project SHARE

- Since 1994, this partnership has raised >\$2 million in grant funding for projects to benefit salmon and habitat (<10% on administrative costs)
  - Design/installation of weirs and traps
  - Water quality monitoring protocols
  - Habitat restoration handbook
  - Restoration of fish ladders
  - BMPs for roads
  - Actual road improvements



## Cerulean Warbler Technical Group

- On the breeding grounds, this partnership is studying response of Cerulean Warblers to several forest management treatments
  - Clearcut harvest
  - Shelterwood harvest
  - Single-tree harvest
  - Undisturbed forest (control)



## Cerulean Warbler Technical Group

- The partners agreed to promote management actions to enhance habitat
  - Leave scattered, generally sub-commercial, stems in even-aged regeneration units
  - Implement pre-commercial crop-tree release
  - Implement thinnings and other intermediate harvest treatments
  - Retain some super-canopy stems during thinning or other intermediate harvests, particularly oaks and hickories
  - Favor two-aged regeneration systems

## The Right Approach

- We can accomplish much on any conservation issue, including issues related to Cerulean and Golden-winged Warblers, if we have the right approach
- BUT...some large-scale conservation efforts have failed miserably in part due to use of the wrong approach

## The Wrong Trousers

- We must be careful that our conservation approach does not take us to unintended places
  - In the movie, “The Wrong Trousers”, Wallace, much to the surprise of Gromit, was taken by his “techno-trousers” to places he did not intend to go



## The Wrong Trousers

- In the essay, *The Wrong Trousers: Radically Rethinking Climate Policy*, Gwyn Prins and Steve Rayner use this film to illustrate the need for the right approach when solving complex problems
- They suggest that some climate policies have failed by
  - Relying too heavily on a top-down, command and control approach that uses perverse incentives to force states to act against their self-interest

## The Right Trousers

- They suggest that, instead, we need to put on the “Right Trousers” and that we should
  - “capitalise in novel ways upon the only driver of voluntary political action that has demonstrated reliability, namely self-propelled, enlightened self interest“

## Can We Succeed?

- The questions that we will discuss today and this week is “Can we put on the ‘Right Trousers’”?
  - Can we capitalize in novel ways on self-propelled, enlightened self interest to encourage proactive conservation actions on behalf of the CERW and GWWA?
  - Can we build on what we already have accomplished?
  - If so, what are the “Right Trousers”?

## What are the “Right Trousers”?

- Identifying the “Right Trousers” is critical, because we have many options



## The Right Trousers

- I propose that the “Right Trousers” consist of two elements
  - First, we must have the “right” overall framework for conservation – a “real” or “true” partnership
  - Second, within the “right” framework, we must take the “right” actions

## The “Right Framework”

- We should develop a “real” partnership that exhibits the following characteristics
  - All stakeholders should be welcome to participate as equal partners
  - Partners should leave their biases behind
  - Partners should have mutual respect for the interests and perspectives of all stakeholders
  - Partners should identify common ground upon which to establish mutual trust

## The “Right Framework”

- We should develop a “real” partnership that exhibits the following characteristics
  - All partners should make some contribution no matter how small
  - Partners should focus on the resource and not on policy (“what is best for the species”?)
  - Partners should tackle simple tasks first to generate momentum and a sense of accomplishment

## The “Right Framework”

- We should develop a “real” partnership that exhibits the following characteristics
  - Each partner should emphasize positive actions to help meet the overall goal of the partnership
  - Partners who do not like a proposed solution should be willing to suggest a better one
  - Partners should understand the consequences of NO action

## The “Right Actions”

- Within the “right framework”, we must then take the “right” actions
  - What actions have successful partnerships on the breeding grounds taken?
  - How have partnerships on the breeding grounds approached conservation issues?

## The “Right Actions”

- Successful conservation partnerships involving industry, agencies, and non-government organizations are proactive
  - They take action before conservation becomes a crisis
  - They find conservation actions that can take place without controversy on the basis of well-established relationships among stakeholders

## The “Right Actions”

- Successful partnerships recognize there is no “silver bullet” for fixing many conservation issues and that multiple actions are required
  - No single action is the ideal solution.
  - Rather, “silver buckshot” (i.e., multiple actions) is usually required
  - Because multiple actions are often required, each partner can make a unique contribution thereby addressing part of the issue

## The “Right Actions”

- Successful partnerships devise actions that are motivated from both the “top down” and “bottom up”
  - Goals should be set at the top
  - But, much of the rest can most effectively happen from the bottom up
  - Emphasizing action from the bottom up provides opportunities for learning from different approaches

## The “Right Actions”

- Successful partnerships ensure appropriate incentives are in place to motivate conservation from the “bottom up”
- “Bottom-up” conservation on the breeding grounds has been motivated by
  - Coercion
  - Enlightened, self-interest

## The “Right Actions”?

- Is coercion the right approach to solving the problems we face?
  - Species-oriented legislation (e.g., ESA)
  - Development moratoria and regulations
  - Planning mandates
  - Zoning
  - Mitigation
  - Etc.

## The “Right Actions”?

- Coercion can be very effective for meeting certain objectives
  - But, it largely represents a “top-down” or “command and control” approach and is a “perverse” incentive
- Those who are “commanded” and “controlled” often are motivated to
  - Avoid being commanded and controlled
  - Do only the minimum required
  - Avoid proactive steps

## The “Right Actions”

- The most effective “bottom-up” conservation action arises from enlightened self-interest
  - “Ordering people what to do is rarely as successful a strategy as one that they undertake willingly. Moreover, willing actions possess commensurately higher degrees of political—and moral—legitimacy precisely because of the absence of coercion”

Adam Smith, *The Wealth of Nations* (1776)

## The “Right Actions”

- There is nothing wrong with harnessing the human interest in self
- If we successfully harness self-interest, it
  - Helps those most affected by management of a species to view it as an asset rather than a liability
  - Encourages land owners, land managers, and the conservation community to find new ways to operate

## The “Right Actions”

- On the breeding grounds, a variety of tools have been used to promote voluntary action based on enlightened self-interest
  - Conservation easements
  - Cost-share programs
  - Transfer of development rights
  - Income and/or property tax credits
  - Mitigation banks
  - Safe Harbor / Habitat Conservation Plans
  - Income from sustainable management

## The Nonbreeding Grounds?

- But, will these tools work on the nonbreeding grounds?
- Might other tools work better?
- Our panel today will discuss the potential mix of tools that could be used to:
  - Encourage more forest cover
  - Contribute to a reversal in population trends for Cerulean and Golden-winged Warblers

## What Approaches Will Work?

- As we begin this session, I propose we consider “What are the ‘Right Trousers’ for the nonbreeding grounds”?
  - Are they highly engineered “techno-trousers” that may take us to the wrong places, or are they something else?



# The End

