

**The Southeastern Massachusetts
Regional Conservation Forum:
Recommendations &
Summaries of the Roundtable Discussions**

Held 12 April 2014

Woods Hole Research Center

Falmouth, Massachusetts



Report prepared by

The Southeastern Massachusetts Pine Barrens Alliance, Inc.

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I. INTRODUCTION

Preserving biodiversity within the globally rare Atlantic Coastal Pine Barrens (ACPB) ecoregion of Southeastern Massachusetts presents a challenge that now requires greater cooperation and increasing collaborative, sustained action among private and public organizations, as well as individual citizens, if we want to ensure that this Ecoregion maintains its vitality and viability.

Organized by the Southeastern Massachusetts Pine Barrens Alliance (SEMPBA) and co-sponsored by the Woods Hole Research Center (WHRC) and Massachusetts Maritime Academy (MMA), the first Annual SE MA Regional Conservation Forum was held on April 12, 2014. Its purpose was to provide a unique opportunity for organizations within the Region that are currently engaged in ecological research, habitat restoration, land conservation and management, and environmental education to discuss and identify topics that will result in cooperative initiatives for the preservation of regional biodiversity of this region.

II. SUMMARY

With a near-room capacity crowd of scientists, conservation managers, landowners, and environmentalists, speakers and presenters from attending organizations raised a large number of ideas in the general sessions. Roundtable discussions brought forward additional ideas. Of the many ideas that were generated, Roundtable participants selected the top three or four (see Selected Priorities by Roundtable, page 7), which were then shared with other participants during the Forum Wrap-up. Drawing from these suggestions, SEMPBA has developed a list of recommendations—Collaborative Action Priorities—that we, with the help of participating organizations and alliance members, plan to implement the Collaborative Action Priorities over the next year.

III. RECOMMENDATIONS FOR COLLABORATIVE CONSERVATION ACTION

Environmental Communication and Educational Action Priorities

- Prepare, present and promote educational conservation programs and tours for land managers
- Prepare, present and promote educational conservation programs and tours for the general public
- Organize a celebration of the Atlantic Coastal Pine Barrens (ACPB) for the general public. SEMPBA has begun this initiative with the first Pine Fest held in May 2014 at the Myles Standish State Forest. Plans are currently underway to hold the second Pine Fest next year
- Develop a “Meet the Scientist” program to help participating organizations bring “friendly” environmental scientists to their areas.

Land Stewardship Action Priorities

- Spearhead an initiative to gather or provide links to data, existing publications, and regional land management research projects and make this information available in one

central location as a public resource

- Identify and distribute a “user friendly” land assessing, mapping and monitoring program for land managers as an aid to community planning, habitat connectivity and the preservation of biodiversity.

Advocacy Action Priorities

- Advocate/fundraise for a permanent position for a dedicated environmental scientist, whose primary role will be to collect data and monitor habitat in the S.E. Mass. ACPB in either the public or private sector
- Integration of fire and smoke regulations to streamline prescribed fire management
- Establishment of a regional or state “Fire Council” with the mission of promoting the exchange of information, techniques, and experiences of the prescribed fire community and increasing public understanding of the importance and benefits of prescribed fire in hazardous fuels reduction, landscape restoration and rehabilitation of the region’s ecology
- Work with local and state legislators to officially recognize and designate the Southeastern Massachusetts Pine Barrens Ecoregion.

Networking Action Priority

- Organize the 2nd Annual SE Mass. Regional Conservation Forum to connect conservation organizations with experts in land management and environmental communication and facilitate networking (February 2015)
- Promote the work of the New England Fire Science Consortium within SE Mass.

IV. FORUM OVERVIEW

Background

Southeastern Massachusetts contains the second-largest Atlantic Coastal Pine Barrens (ACPB) ecoregion remaining in the world. The largest Pine Barrens is in New Jersey (approximately 326,000 acres). Massachusetts’ pine barrens cover about 100,000 acres with about 45,000 acres protected from development. A fire-dependent ecosystem, the pine barrens is characterized by deep, sandy soil and the pitch pine–scrub oak forest that gives the region an open Savannah appearance.

Massachusetts’ ACPB extends along the shore from Duxbury to Provincetown, and includes Cape Cod, Nantucket Island, and Martha’s Vineyard, with twenty-eight communities lying within the region. While the signature natural community of the Region is pitch pine/scrub oak forest, it consists of twenty other terrestrial communities as defined by the Massachusetts Natural History and Endangered Species Program.

Massachusetts has lost approximately two–thirds of the original ACPBE habitat, due in large part to residential development and fire suppression. Other factors, such as the use of off–road vehicles on fragile soils, invasive plants and pests, the substitution of non–native plants in

place of native plants in our landscapes and the use of herbicides and pesticides are also taking a toll on the indigenous plants and animals.

The Southeastern Massachusetts Pine Barrens Alliance, Inc. (SEMPBA) is 501(c)(3) non-profit organization dedicated to raising awareness about the need for urgent action to preserve the region's Pine Barrens and related natural communities. We believe that by fostering learning opportunities and building an action-oriented network of conservation organizations, businesses, educators, individuals and state and local agencies, we can pool our resources and turn around the escalating trend of rapidly disappearing and deteriorating Pine Barrens habitat, preserve biodiversity and move toward a sustainable natural world.

Acknowledgements

SEMPBA undertook to organize the Southeastern Massachusetts Regional Conservation Forum to promote inter-organizational discussions and stimulate collaboration among regional conservation groups. SEMPBA gratefully acknowledges the help and support of the Woods Hole Research Center (WHRC), particularly Thomas A. Stone, Scientist Emeritus; Wayne S. Walker, Ph.D., Assistant Scientist; and Tina A. Cormier, M.S., Research Associate, and the Massachusetts Maritime Academy, especially Malcolm MacGregor, Ph.D., Professor, Environmental Protection, Safety, and Emergency Management; and Alan White, Ph.D. Professor, Environmental Protection, Safety, and Emergency Management. Our special thanks goes to the WHRC for kindly providing a venue for the Forum.

Forum Participants

Prior to the forum, SEMPBA sent a survey sent to over 400 conservation organizations and individuals. The responses were used to guide the selection of the speakers and roundtable discussion topics. Participants were invited to:

- Introduce their organizations and summarize current work
- Share their challenges
- Hear from other experts about their conservation initiatives and challenges, and
- Explore ways in which regional organizations can share data, pool resources, and work cooperatively to strengthen conservation efforts in the region.

The participants included 45 conservation professionals and representatives from the following 25 organizations:

Woods Hole Research Center;

Massachusetts Maritime Academy

Future Lands Designs, LLC

Massachusetts Division of Fisheries & Wildlife;

Northeast Fire Management, LLC.

Wareham Land Trust; The Trustees of Reservations

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The Ecosystems Center, Marine Biological Laboratory

Mass Audubon, Long Pasture Wildlife Sanctuary;

Town of Fairhaven Conservation Commission

Town of Plymouth Conservation Commission

The Herring Ponds Watershed Association

Wildland Restoration International

Wildlands Trust

Friends of Myles Standish State Forest

BlueFlax Design

Ecological Landscape Alliance

Manomet Center for Conservation Sciences

BiodiversityWorks

The Nature Conservancy

MemoryCollective, Inc.

Massachusetts Division of Fisheries & Wildlife

Natural Heritage & Endangered Species Program

Massachusetts Department of Conservation and Recreation Bureau of Forest Fire Control and Forestry

United States Fish and Wildlife Service Region 5 Fire Management

Southeastern Massachusetts Pine Barrens Alliance, Inc.

Forum Agenda

Morning Session: Welcome, General Address, and Presentations by Participating Organizations.

Welcome: Wayne Walker, Ph.D., WHRC. Welcome, WHRC background and Walker's research on ecosystems in Ecological species groups of landform-level ecosystems dominated by jack pine in northern Lower Michigan
(http://clasweb.clas.wayne.edu/Multimedia/danielkashian/files/Kashian_et_al_2003_Plant%20Ecology.pdf)

Presentation online at <http://pinebarrensalliance.org/forumone.html>

Technical Address: Tim Simmons, Restoration Ecologist, Massachusetts Division of Fisheries and Wildlife Natural Heritage & Endangered Species Program. *The Ecological Significance of Pine Barrens: Management Challenges and Opportunities*. Presentation online at <http://pinebarrensalliance.org/forumone.html>

Presentations by Participating Organizations:

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1. John Lepore, Principal, Future Lands Designs, LLC
2. Marianne Piché, DFW-NRCS Partner Biologist, Mass Division of Fisheries & Wildlife
3. Joel R. Carlson, CF, Principal Consultant and Owner, Northeast Fire Management, LLC.
4. Malcolm Phinney, The Wareham Land Trust
5. Russell Hopping, Ecology Program Director, The Trustees of Reservations
6. Megan Wheeler, Research Assistant I, The Ecosystems Center, Marine Biological Laboratory
7. Ian Ives, Sanctuary Director, Mass Audubon's Long Pasture Wildlife Sanctuary
8. Louise Barteau, Town of Fairhaven Conservation Commission
9. Lee Pulis, VP & Education Chair, The Herring Ponds Watershed Association
10. Professor Malcolm MacGregor, Environmental Protection, Safety and Emergency Management, Massachusetts Maritime Academy
11. Bob Bale, President, Wildland Restoration International
12. John Bescherer, Treasurer, Friends of Myles Standish State Forest
13. Theresa Sprague, Owner/Restoration Designer, BlueFlax Design
14. Eric Walberg, Senior Program Leader for Climate Change, Manomet Center for Conservation Sciences
15. Luanne Johnson, Director/Wildlife Biologist, BiodiversityWorks
16. Elizabeth Loucks, Stewardship Manager, The Nature Conservancy
17. Tina Cormier, M.S., Associate Scientist, Woods Hole Research Center

Forum participants introduced their organizations, summarized current work, and discussed challenges that would benefit from collaboration. Presentations may be viewed online at <http://pinebarrensalliance.org/forumone.html>

Afternoon Session: Featured Speaker, Roundtables, and Wrap-up—Prioritizing Roundtable Ideas for Collaborative Action.

Featured Speaker: Heather M. H. Goldstone, Ph.D., Science Editor, WGBH and WCAI Radio. *What Americans Do and Don't Know About Science (And Why)*. Presentation online at <http://pinebarrensalliance.org/forumone.html>

V. ROUNDTABLES

The bulk of the Forum was dedicated to hearing ideas from attendees about issues they are currently facing and how attendees might work together to find solutions. From the initial planning phase, participants were asked to help develop the Forum programming by generating topics around which Roundtables would be held. SEMPBA invited discussion Facilitators based

on the topics of greatest interest. Discussion Facilitators refined the topic titles to best incorporate their expertise and clarify the subject matter.

Roundtable I: Including Climate Change in Conservation Planning for Southeastern Massachusetts

The climate in Massachusetts has changed significantly over the last 100 years and the rate of change is projected to accelerate over the next 100 years. How will warming temperatures and changing precipitation patterns impact biodiversity and ecosystem function? How do we best incorporate climate change in conservation planning? This Roundtable session will engage participants in the identification of ecosystem service impacts of climate change and brainstorming on how to maximize the resilience of natural systems.

Discussion Facilitator: Session I and II: Eric Walberg, Senior Program Leader for Climate Change, Manomet Center for Conservation Sciences

Roundtable II: How can we restore lands and accommodate the needs of all constituents?

What makes a healthy, beautiful landscape? What is ecological design and what importance does it hold for both large and small property owners and municipalities? How can we balance ecological restoration with human needs/use in densely developed areas? How do we get property owners to consider the needs of the environment and wildlife and teach them to see themselves as land stewards?

Discussion Facilitators: Session I & II: Theresa Sprague, Owner/Restoration Designer & Vice President, BlueFlax Design; Ecological Landscape Alliance

Roundtable III: How do we best manage Pine Barrens?

How can we work collaboratively and cost effectively to address ecological and resource management goals in both planning and implementation? What resources are available? What role does prescribed fire play in ecosystem management? How does habitat classification and mapping aid regional conservation?

Discussion Facilitators: Session I: Wayne S. Walker, Ph.D., Woods Hole Research Center. Session II: Tina Cormier, M.S., Research Assistant, Woods Hole Research Center; and Tim Simmons, Restoration Ecologist, Massachusetts Division of Fisheries and Wildlife Natural Heritage & Endangered Species Program

Roundtable IV: How can we cooperatively build citizen conservation programs?

What are the barriers to implementing citizen conservation programs in SE Mass and to collaborative efforts? Are any current monitoring or research projects in need of a citizen component and/or coordinator? How effective are citizen conservation programs in promoting conservation? How can we best provide opportunities for people to engage in hands-on nature

study? How can we collect, verify and share citizen-collected data? What volunteer and engagement messages are well suited to barrens habitats?

Discussion Facilitators: Session I: Luanne Johnson, Director/Wildlife Biologist, BiodiversityWorks. Session II: Russell Hopping, Ecology Program Director, The Trustees of Reservations

Roundtable V: How can we improve the way we communicate pro-environment messages and implement change?

What are the obstacles that affect behavioral change in adopting better conservation practices? How can we communicate with people in a way so that they are more inclined to hear our messages? Are there better communication strategies we should employ?

Discussion Facilitators: Session I: Heather M. H. Goldstone, Ph.D., Science Editor, WGBH and WCAI. Session II: Malcolm Phinney, Board Member, Wareham Land Trust

Format

Each Roundtable was held twice. Many of the Subject Leaders, Facilitators, and Secretaries stayed in place while Participants moved to a different Roundtable of their choice. All suggestions were written down, and the top three suggestions—taken from both sessions—were presented to all the Forum participants at the end of the day by one of the participants.

This report provides three looks at the suggestions generated by the participants:

- Participant-selected Roundtable priorities presented at the Wrap-Up Session of the Forum (Section. VI)
- Selected Priorities from all the Roundtable Responses presented by topic (Section VII)
- A summary of all of the responses grouped together by topic (Section VIII).

(We are doing this to avoid duplication. Several roundtables came up with similar suggestions.)

VI. SELECTED PRIORITIES BY ROUNDTABLE

Roundtable I: Including Climate Change in Conservation Planning

- Regional natural open space connectivity planning
- Adaptive management, particularly for coastal plain ponds
- Integrated fire management—greater frequency, low intensity, larger areas covered
- Controlling invasive species: prioritizing species and locations.

Roundtable II: Land restoration as it relates to constituents

- Finding a common language to describe issues and needs so that material can be more effectively searched

- Greater teacher engagement, particularly professional development opportunities
- More education in both traditional (museums) and non-traditional venues (flower shows, bookstores) about prescribed fire and other forms of management for biodiversity
- **Roundtable III: Best management practices for the Pine Barrens**
- Guide a percentage of Open Space Bond funding toward Pine Barrens Management
- Improve the public perception of the need for prescribed fire management
- Integrate fire and smoke regulations to streamline prescribed fire management
- Creative practical mapping and classification tools.

Roundtable IV: Citizen Conservation Programs

- Identify a set of positive common themes – extol the benefits of ecosystems’ services
- Develop and on-going forum for communicating needs and ideas
- Identify and provide opportunities for engaging people in the CAPBE in order to facilitate stewardship
- Celebrate rare species as assets—prioritize to highlight “Pine Barrens” species.

Roundtable V: Communicating pro-environment and climate change messages

- Know your audience
- Engage children
- Develop community outreach programs

VII. SELECTED COLLABORATION PRIORITIES BY TOPIC

Environmental Communication and Educational Priorities

- Finding a common language to describe issues and needs so that material can be more effectively searched
- Identify a set of positive common themes
- More education in traditional (museums) and non-traditional venues (flower shows, bookstores, box stores, etc.)
- Greater teacher engagement, particularly professional development opportunities
- Engage children
- Showcase rare species, prioritize to include obligate ‘pine barrens’ species
- Improve public perceptions of prescribed fire management

Land Stewardship Priorities

- Control invasive species: prioritizing species and locations

- Regional natural open space connectivity planning
- Adaptive management, particularly for coastal plain ponds
- Integrated fire management—greater frequency, low intensity, larger areas
- Create practical natural communities mapping and classification tools

Advocacy

- Guide a percentage of Open Space Bond toward Pine Barrens management
- Integrate fire and smoke regulations to streamline prescribed fire management

Networking Priorities

- Identify and provide opportunities for engaging people in the Pine Barrens in order to facilitate stewardship
- Develop an ongoing forum for communicating needs and Ideas

VIII. SUMMARY OF ALL THE ROUNDTABLE SUGGESTIONS BY TOPIC

Better Public Communication and Education

- About:
 - The economic benefits of preserving an area in creating local jobs and increasing traditional- and ecotourism
 - Need to establish “care for the environment” as a core value that stresses our connection to each other and to nature
 - Invasive plants and invasive management practices—herbicides, burning, pulling
 - The Pine Barrens as a resilient ecosystem
 - Fire management, controlled burns
 - Climate change as it affects this region, how the pine barrens
 - Forests as a carbon sink that need management so they don’t burn all at once and release excessive amounts of carbon dioxide
 - The benefits to the public at large of a healthy ecosystem, e.g., flood protection, water quality protection
 - The connection between nature and history
 - The difference between what is beautiful and what is valuable in nature
 - Land use and land trusts
 - Why the Pine Barrens require active management and stewardship (for more: see Pine Barrens below)
 - Housing development—why clustering is more environmentally sound

- Difference between manicured and natural landscapes, vegetative buffers
- Need for conservation ambassadors and scientists to present information in a friendly manner that is easily understood
- Better messaging:
 - Change message to reach different audiences. Know the audience and address their concerns
 - Provide transparent, consistent information
 - Admit that you don't have all the answers
 - Explain risk and uncertainty; do a better job of explaining risk (wild fires, e.g.)
 - Choose simpler words—e.g., lots of different animals instead of biodiversity
 - Ensure that implications of words, like restore, are clearly understood
 - Acknowledge the validity of other points of view
- Better use of electronic media
 - Use language that is search optimized
 - More television, sound and wildlife cams
 - Interactive website using Google Earth regionally, concentrating on the impact of stewardship, areas of concern, etc.
- Establish trust by holding trainings, public “listening sessions”; attend town meetings
- Use better signage in natural environments that alert people to benefits of an area as well as potential dangers or threats
- Bring the message to the people, not have them come to you. Reach out to different demographic groups—Churches, VFWs, fraternal organizations, clubs, Tupperware parties, etc. Appeal to different interest groups, like hunting, fishing, hiking, etc.

Better programming to engage the public and non-conservation professionals

- Develop more “boots on the ground” programs, like informal hikes
- Bring environmental programs to different locations, like home improvement stores, lawn and garden centers, farmers markets, garden clubs, flower shows, birding trips, corporations, local businesses, realtors
- More interpretative, in-the-field programs for students
- Create a pine barrens display at the Museum of Science in Boston
- Better professional development on the environment for teachers
- Develop stronger connections between landscapers and environmental scientists

Need for More Citizen Science Projects

- Certification programs

Fire Management

- Need to change the public perception of its use as a forest management tool, that integrated fire management is a natural part of the Cape Cod/SE MA ecosystem
- Need to get people to accept regulatory changes about smoke generated by fire management
- Create a collation of private and public prescribed fire interests
- Establish a uniform vision with a clear chain of command regarding fire management in large public lands
- Develop a fire management plan that addresses:
 - Public awareness and benefits
 - Where funding and grants may be found
 - Costs & Budgeting
 - Land management priorities
 - Available resources
 - Use of mechanical as well as other fire management tools
 - Long- and short-term needs
- Create regulatory reform
 - Need a sub-group to create mapping tools and habitat classification to aid regional conservation
 - Make sure regulation changes don't impact other regulations, e.g. bombing/firing on military base was a poor decision
 - Outline measures that can be adapted to specific locations
- Develop an effective lobbying effort to reach policy makers, understand the budgeting process better, especially to get a percentage of the land acquisition budget devoted to land management through controlled burns
- Develop better demonstration sites, e.g. a new trail in Myles Standish

Impact of Climate Change

- Need for regional (across political boundaries) and long-term conservation planning
 - Develop timelines and priorities for planning

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- Integrate fire management and large area management planning
- Need for developing adaptation strategies:
 - Decrease in biodiversity—native species dying out and invasive species taking hold
 - Changing pest behavior and the geographic range of species
- Need for adaptive management of the coastal plain ponds, especially between the water supply and pond levels, salt and coastal ponds
- Can the Pine Barrens be an asset in facing climate change? How do we best manage the Pine Barrens through periods of drought and fire?

Changing Concept of Conservation

- Can we preserve some types of ecosystems that we have now?
- Conservation is not just about saving a pristine ecosystem. It's about making natural spaces available and bringing people to them. We want people to interact with the land, to understand that it is a constantly changing system
- How do we balance what conservationists want and what some landowners want?

Need for Greater Communication and Networking among Conservation Organizations

- Need to connect different organizations and protected sites, to share information and prevent “re-inventing-the-wheel” syndrome

Need to Influence Policy Makers and Public Officials

- Hold more public forums that help to educate our officials about issues pro-actively and positively, not in reaction to an issue

Thank you!

