Protection in an Age of Uncertainty

Overview:

Modeled after work done by Audubon Vermont, a list of bird species with a significant proportion of their global breeding population in New England and/or experiencing long-term population declines will be identified for additional monitoring and management activities across Audubon Society of Rhode Island properties. These "Responsibility Birds" place the burden of proactive management on us as the drivers of decline in global biodiversity. In 1973, the passage of the Endangered Species Act (ESA) was, in essence, a way for us to justify our transgressions against nature. While the act did establish metrics designed to rehabilitate failing wildlife populations, it still was largely a reactive form of conservation. Under the ESA, birds and other wildlife received no advanced forms of protection until *after* they were deemed to be perilously close to extinction. Of course, hunting regulations as well as restrictions on construction, trade and commerce are all in place to offer additional protection for wildlife species, but the level of protection can change from one year to the next, is heavily influenced by politics and often requires substantial legislative wrangling to sustain. It is time to take it upon ourselves to do the on-the-ground work necessary to protect our natural heritage.

Species like the Canada Warbler have declined dramatically in Rhode Island over the past 40 years. Our duty is to understand why and work our hardest to bring them back.

We find ourselves in a period when conservation needs to be centered around the creation and maintenance of resilient biological communities. With the increasing pace

of climate change, a recently documented loss of 30% of North American bird abundance and projections of drastic changes to the geographic distribution of many bird species over the coming decades, now more than ever conservation of healthy, functional ecosystems is a neccessity. However, unlike the ecosystem-based approaches to conservation that have been the norm for decades, many species are in need of targeted management plans that address their specific needs. Successful conservation planning will take into consideration both the health and functioning of a habitat and the individual needs of the species contained therein.We have lots of work to do.

Over the past 50-years, American Woodcock have declined regionally (in CT, MA and RI) at a rate of 3.6% per year.

Beginning on Audubon properties, we will monitor our avian populations in the hopes that the conservation of these species will soon become the responsibility of all Rhode Islanders. While we will establish monitoring protocol for the full avian community on each parcel, we will collect additional information on "Responsibility Birds" that will allow us to create management plans designed to promote continued success or improve our habitats for species in decline. We will then share our monitoring protocol and data with land trusts and state agencies as well as regional conservation organizations in the hopes that information on these species will be collected at a larger scale leading ultimately to a regional management plan.

Selection Process:

During the recently completed Rhode Island Bird Atlas, 35 breeding species were documented as having experienced a contraction in range relative to the first atlas or were declared extirpated from the state. While the remaining species exhibited no change between the atlas periods or increased in distribution (although not necessarily in abundance), this does not mean these species should be discounted from management plans. With an increasing pace of climate change and many conservation crises on the horizon, all species require conservation attention. Favorable conditions for a species today may give way to hardship in the near future. When this happens, we need to be

Audubon protects over 1,000 acres of forested swamp. How can we promote avian communities associated with this habitat?

prepared. Collecting data now on a given species' habitat requirements, population size and success within Rhode Island is critical to having the correct tools to help when help is needed. As humans are the main driver behind every conservation issue birds face, it should be our responsibility to be proactive in our management.

"Responsibility Birds" will be identified using three major criteria.

- **A thorough examination of the results from the recently completed Rhode Island Bird Atlas.** This will help identify species that have declined within the state or regionally. Depending on the proposed reason behind the decline, these species may or may not become candidates for listing as "Responsibility Birds". For example, the Horned Lark (*Eremophila alpestris*) is a species associated with open, rocky landscapes devoid of forests throughout most of its range. In Rhode Island, the species has declined by 50% between the first and second atlas periods while it has experienced a 7.6% decline annually on a regional scale (MA, CT and RI). Since a major driver of this species' decline in the state is likely the fact that its preferred habitat is not available in sufficient quantities to promote successful breeding populations and the state itself sits outside of the species' traditional breeding range, Horned Larks may not be ideal candidates as "Responsibility Birds".

- **A review of Breeding Bird Survey (BBS) trends from the region.** This source of data will provide information on how a species is faring not just in Rhode Island, but in our neighboring states (CT and MA). BBS trends will help determine the likelihood that regional conservation plans will be effective.

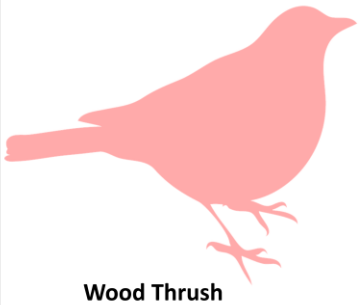
- **Climate change predictions.** The National Audubon Society has issued predictions for every North American bird species regarding changes to geographic distribution in the face of climate change. This information will be used to identify species that will remain in our state or will require resilient habitats in order to remain. In either case, management plans can be catered to a species' needs in a world with a rapidly changing climate.

Candidate Species:

In an ideal world, ALL bird species would be listed as "Responsibility Birds". After all, all birds should be insulated from the effects of climate change, habitat loss and the myriad other changes taking place across our planet as a result of human population growth and resource use. Alas, there is only so much that we can concentrate on if our goal is to be effective in our management. Additionally, by working towards conserving our "Responsibility Birds" we will

likely provide for multiple other species in the process. Once a species is identified that, based on the criteria listed above, qualifies for listing as a "Responsibility Bird", monitoring plans will be created to collect additional information on breeding, migrating and wintering needs of the species.

Examples of species that may be listed as "Responsibility Birds" by the Audubon Society of Rhode Island:



Wood Thrush
(*Hylocichla mustelina*)

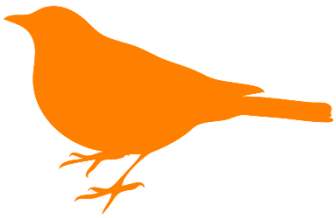
Positive Habitat Associations:
Core Forest, Oak Forest, Elevation

Negative Habitat Associations:
Residential

State Trend:
Positive (4.8% increase in distribution)

Regional Trend:
Negative (-2.6% change per year)

Climate Prediction:
High Risk: 57% range loss with 3°C warming



Canada Warbler
(*Cardellina canadensis*)

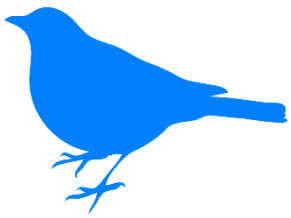
Positive Habitat Associations:
Forested Shrub Wetland, Mixed Deciduous/Coniferous

Negative Habitat Associations:
Fragmented Core Forest

State Trend:
Negative (58.7% decline in distribution)

Regional Trend:
Negative (-4.4% change per year)

Climate Prediction:
High Risk: 94% range loss with 3°C warming



Blue-winged Warbler
(*Vermivora cyanoptera*)

Positive Habitat Associations:
Early Successional Scrub/Shrub, Oak Forest

State Trend:
Positive (4.7% increase in distribution)

Regional Trend:
Negative (-3% change per year)

Climate Prediction:
Moderate Risk: 83% range loss with 3°C warming

Moving Forward:

Our list of "Responsibility Birds" will undoubtedly be a combination of breeding, wintering and migratory species. As we will likely identify some of these species within the next few months, the full list of candidate species will not be complete until we gather additional data from field work across our properties.

How you can contribute:

The work to be done is extensive. It also cannot be done without considerable help in the form of volunteer data collection. We plan to begin our data collection this winter and maintain a year-round monitoring program across many of our refuges. The biggest way you can contribute to this project is to volunteer your time, money and talent in some way. If you are comfortable in the field, join us for survey work and know that you are collecting data that will be used to conserve the birds of Rhode Island.

* State and regional trend data are derived from the 2nd Rhode Island Bird Atlas, a project managed by the Rhode Island Department of Environmental Management.