

BIRD CONSERVATION

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RESTORING DISTURBED HABITATS FOR BIRDS



This adult male Eastern Bluebird, banded at the field station, is one of the species that use the wooded field borders presently overgrown with alien species.

As we've reported here previously, for the past several years we've been involved in replacing alien thickets bordering our fields with those supporting native woody species. The goal is to create higher quality habitat for native birds. This work builds

upon studies performed years earlier on restoring tropical habitats (<http://www.birdconservationresearch.org/pdf/regeneration%20of%20native%20mariana%20island%20forest.pdf>).

Some of the important findings of this earlier

study were that, once the alien species modified the disturbed habitats they first colonized, they were invaded by native species that could germinate in the more shady, moist, nutrient rich and cool environments created.

(Continued on page 2)

DISTURBED HABITATS

-CONTINUED

“Many native species are aggressive competitors, so our goal is to have natives displace aliens over time.”



New York Ironweed is one of the native herbaceous species that we have planted in our field border. The wooden stake to its right supports a seedling Downy Juneberry- one of the few natives to begin colonizing alien thickets on their own.

Key to invasion, however, appeared to be the presence of a nearby source of native seeds that could be dispersed by native birds. The importance of this bird dispersal was recently shown experimentally (journals.plos.org/plosone/article?id=10.1371/journal.pone.0065618).

On our field station, as well as on the adjacent Holzer, Cole and Aicher preserves of Wyndham Land Trust, there are limited sources of native seeds for birds and other wildlife to disperse. For natives to invade these areas, a number of important species will initially have to be established from

elsewhere. Once established, we hope that wildlife will begin to spread their seeds much as they did in alien tropical thickets.

To date, we are re-establishing previously absent herbaceous and shrubby species like Canada Honeysuckle, Striped Maple, Pin Cherry, Sweet Pepperbush, Winterberry, Black Highbush Blueberry and Buttonball Bush.

These species join some native species that have begun to invade on their own, including Downy Juneberry, Black Cherry, Common Elderberry, Red-panicked Dogwood, Northern

Arrowwood and Spicebush. Notably, most of these latter species have small fruits that are often dispersed by songbirds.

Although we already have cleared large portions of our field borders of alien species, completely doing so for this and adjacent parcels is not practical or even advisable. For example, these aliens presently provide structural habitat components for a number of wildlife species. Hence, our restoration strategy is to perform limited clearing to give planted and naturally seeded natives a chance to invade the thickets. Many native species are aggressive

YALE FOREST STUDY CONTINUES THIS WINTER



The Pine Siskin is one of a group of “winter finches” that have begun to erupt south into Connecticut this winter.

“This winter is shaping up to be very different than the last one.”

Although we already have produced a study detailing the results of our summer investigations at Yale Forest (<http://www.birdconservationresearch.org/pdf/Yale%20Forest.pdf>), our work continues this year for a second winter. By the end of this year, we will have survey data for both summer and winter.

This second winter and summer will give us a 20-year sequence of population changes at two

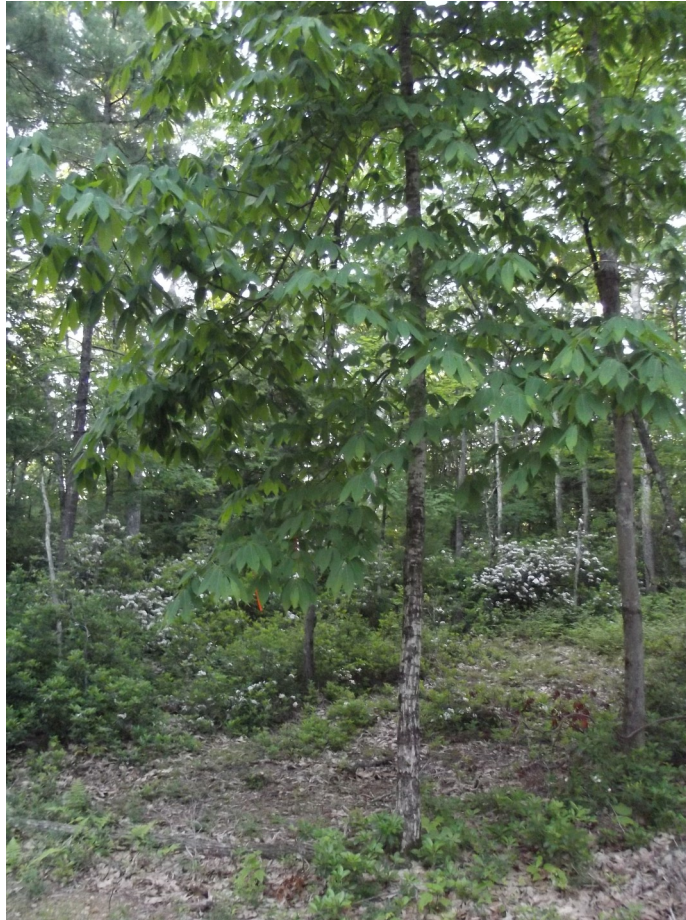
environmental scales. In addition to ten one mile-long survey routes at Yale Forest, another five two mile-long routes traverse the larger Northeast Uplands ecoregion.

This winter is shaping up to be very different than the last one. The winter of 2020 was unusually mild, snowless and without an influx of migrant finches from the far north. This winter has so far been more snowy, and finches have been streaming

south from the boreal zone since November. To date, Pine Siskins, Common Redpolls and crossbills have been present in our region in numbers. Moreover, Evening Grosbeaks, rare locally since the early 1980s, have been streaming south in flocks.

FIELD STATION UPDATE

“Despite decades of research into developing a blight-resistant variety of chestnut, little progress has been made in restoring the species to forests until recently.”



The American Chestnut, an immensely valuable species for wildlife, has virtually disappeared from New England's forests save for the occasional individual— like this one encountered at Yale Forest- that survives to sapling size before succumbing to blight.

Winter is the time when forestry operations are in full swing at the field station. We are again removing diseased trees from our field borders in preparation for planting of native trees with high wildlife

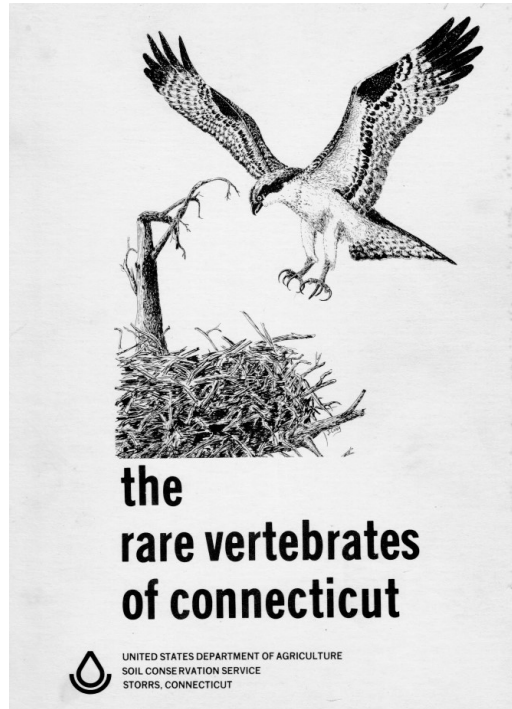
value, including the American Chestnut depicted above. This work is a part of our larger effort to restore native vegetation to field borders.

The American Chestnut has been gone from Connecticut's forests for

a century due to the introduction of a fungal disease from Asia. Despite decades of research into developing a blight-resistant variety of chestnut, little progress has been made in restoring the species to forests until recently. Researchers at the State University of New York, using modern genetic techniques, have succeeded in inserting a single gene from wheat into the chestnut genome that gives the species blight resistance. The gene, which codes for the production of oxalic acid, is widespread in the plant kingdom, although it is absent from the wild chestnut genome.

BCR has been in touch with the SUNY researchers and will begin planting their resistant chestnut in our field borders as soon as federal approval is obtained. Other challenges remain for reforestation by chestnuts, but this will be a major step forward.

RARE VERTEBRATES BOOK AGAIN AVAILABLE



The Rare Vertebrates of Connecticut, out of print for 40 years and not otherwise available on the internet, is now accessible via Bird Conservation Research, Inc. Much has changed since this volume was released. Species thought to be rare in the 1970s, like the Cooper's Hawk, Pine Warbler, Yellow-bellied Sapsucker and Red-bellied Woodpecker, have undergone explosive population growth and are now regular Connecticut residents. Others, like the Ruffed Grouse and White-throated Sparrow have declined and still others, like the Common Raven, had yet to

colonize the state.

Thinking concerning the meaning of terms like State rare and State endangered has, as a consequence, evolved. An important conclusion to be drawn from the extent of population change observed over time is that wildlife communities are dynamic rather than static. This conclusion affects how conservation concern is evaluated and requires us to develop a more sophisticated notion of how we view rarity at the local level. See this page (<http://www.birdconservationresearch.org/educators/powerpoints.php>) and click on the

PowerPoint presentation *Global vs. Local Perspectives on Endangerment* for a more-in-depth analysis of this issue.

The Rare Vertebrates of Connecticut provides us with a useful perspective on some of the earliest thinking concerning conservation of rare species at the local level. It is available here: <http://www.birdconservationresearch.org/pdf/rare%20vertebrates%20of%20ct.pdf>.

“The Rare Vertebrates of Connecticut provides us with a useful perspective on some of the earliest thinking concerning conservation of rare species...”

The Newsletter of
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Don't forget to renew your membership.

MEMBERSHIP

It is time to renew membership for 2021. Existing members will receive renewal forms in the mail. If you have not yet become a member,

you may do so online through GoFundMe ([.https://www.gofundme.com/f/1nqlss](https://www.gofundme.com/f/1nqlss)). Memberships remain one of our principal means of

funding the projects that we conduct, so please consider joining us. Membership applications and contribution options are also available on our web site.