



The Power of One Small Patch!



Issue

The small, rural town of Kent, Connecticut is an important area for both breeding and migratory birds due to its large tracts of forest, riparian and inland wetlands. However, many residents are unaware of the role Kent plays in ensuring the survival of several avian species, especially those of global conservation concern. Few people in town, including land trust members, can identify the resident avian species, let alone the migratory species, that call Kent home for a few months, weeks, or days each year.

While land trusts have been good about preserving habitat, they are just beginning to learn about the importance of managing their properties for avian diversity. Providing plants that supply food, water and shelter to birds, even in a small habitat patch, can increase the number of different species utilizing one's property (Degraaf, 2002).

Increasing awareness about birds and simple actions that land trusts and individuals can take to enhance habitat for birds will allow the town to come together as avian stewards to make Kent an oasis for our feathered friends.



Fig. 1. Lillian Steinmayer and classmates working on project. (Left) Lillian and Nick Pignataro processing a bird. (Middle) Lillian and Amelia Marshall taking data on the surrounding environment. (Right) Lillian with Oliver Sanchez, Amelia Marshall, and Nathan Winter, as they release birds.

Study Site, Avian Data Collection & Results

- Habitat use by birds on property shared by Kent Land Trust and Marvelwood School on Skiff Mountain in Kent, CT was determined by mist-netting (Fig. 1).
- The migration station size is ~1.0 hectare (2.5) acres or equivalent of ~2 football fields. A Station Map was created utilizing the Track Kit mobile GPS App and Google Maps (Fig. 2).
- A total of six net lanes were established. Mist nets used were 12-meters long and four tiered, and made of 30 mm mesh, black, tethered, nylon. The number of nets opened each session depended on the number of banders and assistants available. On average, 4 nets were opened each session. A total of 235.5 net hours were logged during the banding season.
- Banding data were collected on 20 days between September 12 and November 1, 2018.
- USGS bands were placed on the birds under the supervision of a licensed bander and data were reported to the federal government.
- A banding log was created using Epicollect 5 (mobile data form that can be tailored to your project).
- A total of 135 birds were extracted from the net. Of these:
 - 120 were new birds (birds without bands when extracted from net).
 - 9 were recaptures (birds previously banded on the property)
 - 6 were not banded (hummingbird require special permits or escaped before processing).
 - A total of 30 species were recorded in the nets during the 2017 migration season.
 - Since migration banding began in 2014, a total of 55 species have been banded. (see Fig. 3, photos at bottom of poster & species bird list near poster for examples of captured species).

Acknowledgements & References

We would like to thank the many Marvelwood Students who participated in this project by collecting data and taking photographs, particularly Nathan Winter, Amelia Marshall, Oliver Sanchez, Nick Pignataro, and Able Xhou. Also, thank you to Dr. Laura Cisneros and Kent Land Trust for their help and support along the way as well, and Janet Allison our banding assistant.

See reference guide: DeGraaf, Richard M. (2002) *Trees, Shrubs, and Vines for Attracting Birds*. University Press of New England.

Fig. 2. Dominant vegetation map & location and net lanes (in-set photo).

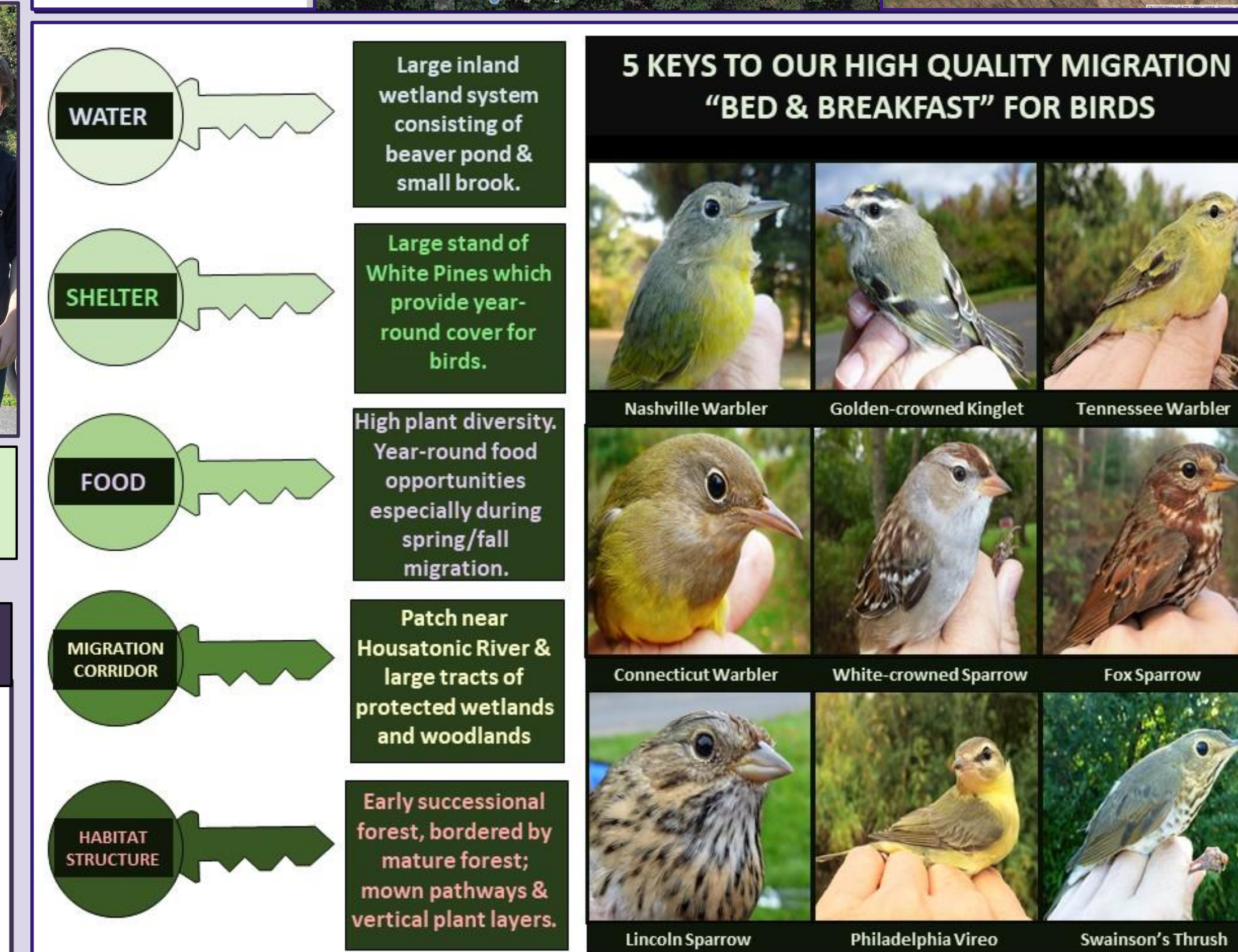
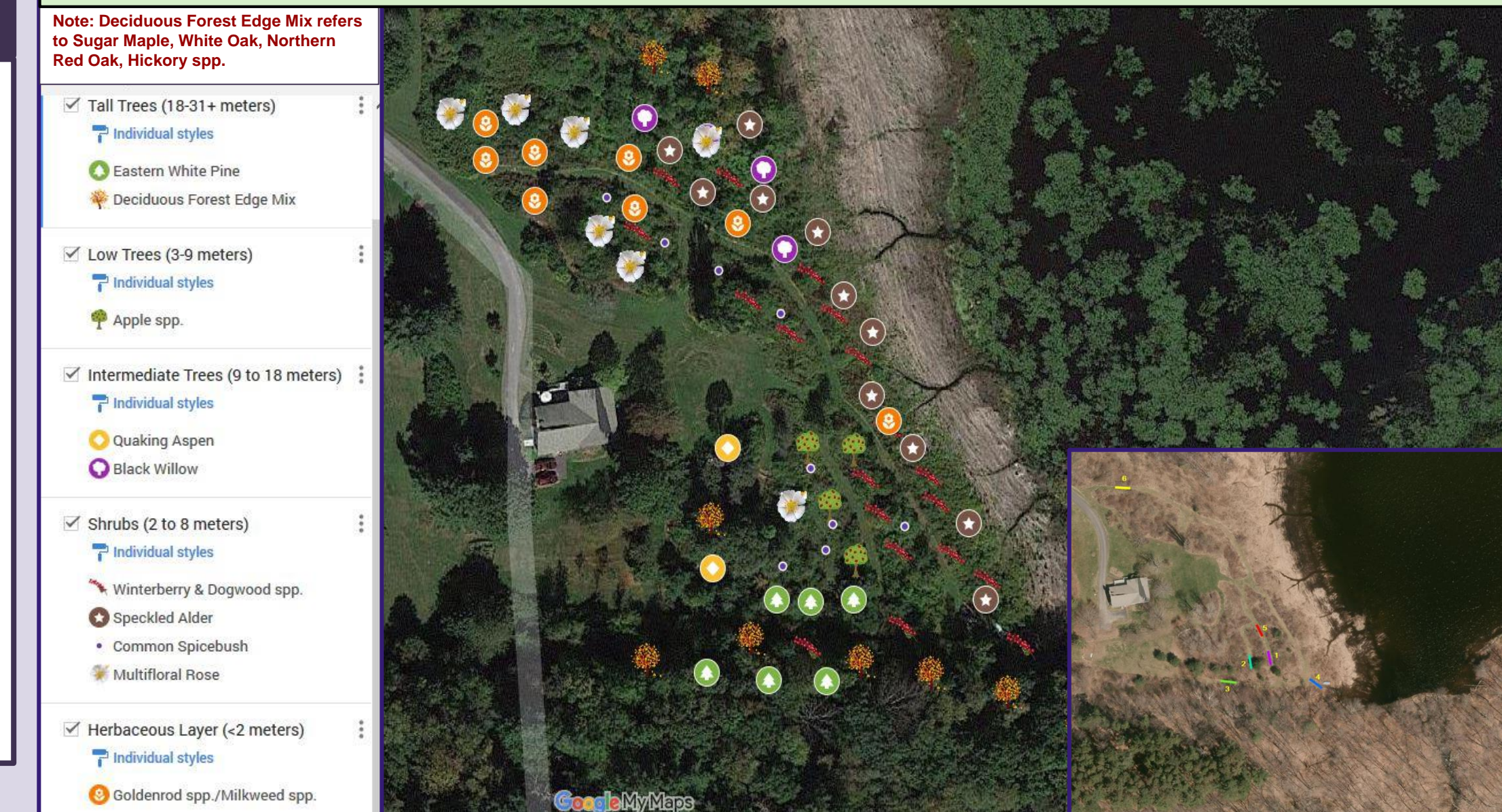


Fig. 3. Key habitat components for a successful stopover location and examples of species captured in mist nets.

Fig. 4. These are sample workbook pages from the activity book we created: (Left) One on making a patch of land a bird bed & breakfast (e.g. good habitat) that provide resources to migratory & local birds, (Middle) Another on specific species that spend time in the Northwest corner of Connecticut, and (Right) Another on the Cerulean Warbler and its site fidelity/migration, and one on how to use eBird to record birds.

Objectives

- To determine via mist-netting and observation, which birds are utilizing one small area of shared land trust and school property during the fall migration period.
- To survey the plants found on the property to determine if any of these plants are attractive to birds to guide management on other small habitat patches in Kent with the goal of increasing habitat for birds and enhancing bird conservation.
- To raise awareness about the importance of creating and maintaining both early successional habitat and vegetative vertical structure on land trust and private property.
- To educate local families and children about the incredible avian biodiversity in Kent and how to identify several species of birds found in Kent.

Habitat Features & Results

- Plant species at the migration station were identified and photographed when possible.
- Plant identifications were confirmed by friends, members of an online plant site called Walter Reeves.com, Somerville MA Town Forester Dr. Vanessa Boukili, and various online sources including UConn's Plant Database.
- The top fifteen plant species on the property with respect to their abundance and importance to birds were noted (see Fig. 2).
- Vertical stratification of plants was evident at the migration station with the top fifteen species and their approximate placement noted in our Dominant Vegetation Map (Fig. 2). Landscaped lawn and mown pathways, shrubs added additional layers. (see Fig. 2 & reference plant list near poster).

Educational Component: Raising Avian Awareness

- We spoke at a CT Bird Atlas Project Presentation for local land trusts about this project.
- We made an activity book for land trusts, children and families to use about migratory birds, stopover sites (Fig. 4), and how they can help birds by creating small patches or a "Bird Bed & Breakfast" in their backyards (Fig. 1).

Get Involved!

- Mentor young birders to help collect bird data on land trust property.
- Contribute your data to the CT Bird Atlas Project (<http://www.ctbirdatlas.org>)
- Contribute your data to eBird (<https://ebird.org/home>)
- Become a member Connecticut Ornithological Association (<http://www.ctbirding.org>)
- Share our activity book and create "Bird Friendly" habitat in your backyards for CT bird species (http://nrca.uconn.edu/students-adults/products/Bird_Buddy_Activity_Booklet_Doss_Steinmayer.pdf)
- Sponsor or Mentor students in the UConn NRCA CAP & CTP programs to create bird projects in their communities (<http://nrca.uconn.edu/>)



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