

# BIRD CONSERVATION

VOLUME 11, NUMBER 4 OCTOBER 2009

## INSIDE THIS ISSUE:

|  |   |
|--|---|
| <i>Forest birds and productivity</i>             | 1 |
| <i>Forest birds and productivity (continued)</i> | 2 |
| <i>Field trips</i>                               | 3 |
| <i>Video productions</i>                         | 4 |
| <i>Videos continued</i>                          | 5 |
| <i>Membership</i>                                | 6 |

## Board of Trustees

Marvin Haltzer,  
President

John J. Carta, Jr.

Gregory M. Castanza

Michael P. Curtis

Michael DiMeglio

Thomas Prescher

Juan Sanchez

Katherine Sheldon

Ronald J. Tillen

Donald E. Williams

\*\*\*\*\*

Robert J. Craig, Director

## BCR TEAMS WITH U.S. GEOLOGICAL SURVEY



**This juvenile Carolina Wren is more likely to survive the winter on the coast.**

The U. S. Geological Survey is collaborating with BCR as we continue to analyze the year-round distributions of southern New England's forest birds. USGS is providing technical assistance in the field of satellite imagery.

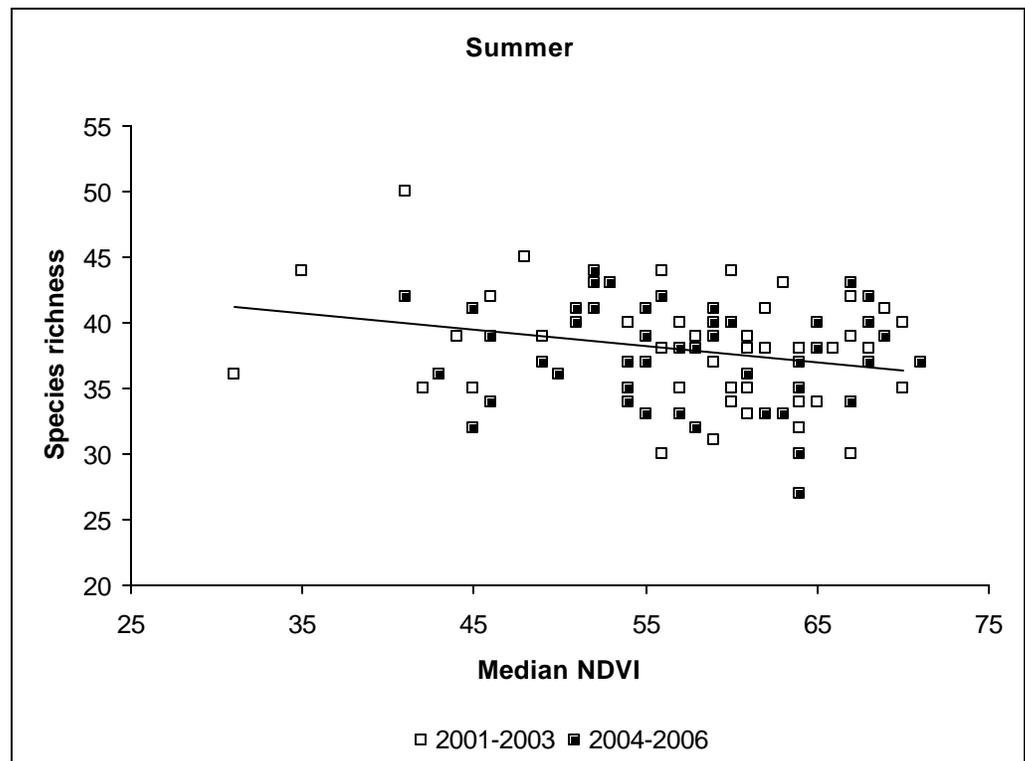
We have already demonstrated that a significant

winter relationship exists between forest bird diversity and winter energy availability (*see top of page 3*) in that our region's birds move to warmer, coastal forests in winter. This is likely because birds can live near the coast for fewer calories/day. In winter, when food is limited, reducing energy costs

translates into a greater probability of survival. Other of our analyses demonstrate that particularly our wintering permanent resident species congregate toward the coast.

Despite such relationships, summer average  
*(Continued on page 2)*

**“Measuring  
the  
productivity of  
forests is  
possible with  
satellite  
imagery.”**



**A weak but negative relationship exists between primary forest productivity and the number of bird species that inhabit forests.**

*(Continued from page 1)*

temperatures (as measured by elevation and latitude) exhibits little relationship to where birds are found. This is likely because during summer, energy in the form of forest productivity becomes available. This productivity is ultimately what produces the insects, fruits and seeds that birds rely on for food.

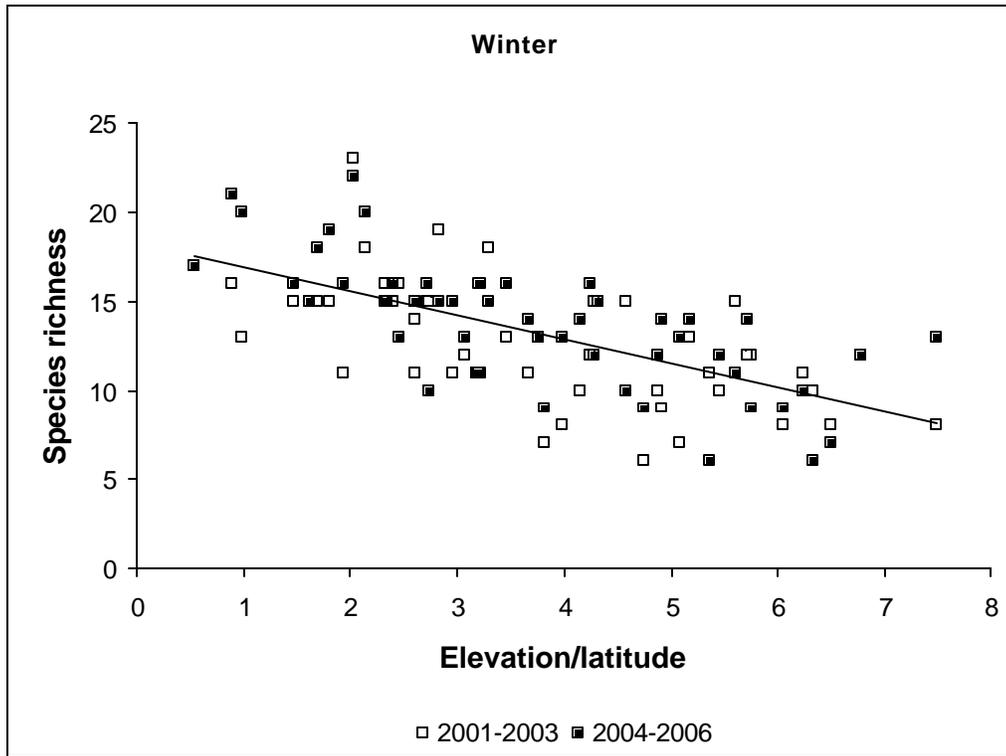
Measuring the productivity of forests is possible with satellite imagery. Satellites routinely make a measurement called the normalized difference vegetative index, or NDVI, which is a measure of the relative greenness of for-

ests. Research has shown that forest greenness serves as a measure of primary productivity.

NDVI data are gathered by the U. S. Geological Survey, so we have teamed with them to seek relationships between their data and our large scale surveys of bird distributions. To date, only initial analyses have been completed, although these findings have not been consistent with expected trends.

As noted, theory predicts that NDVI should relate positively to the number of bird species. Instead, our data (above) show a weak negative relationship between NDVI and species.

The reason for this pattern is the subject of ongoing investigations.



**A stronger, positive winter relationship exists between temperature (greater elevation and latitude equals lower average temperature) and the number of species that inhabit forests.**

***“We are planning another trip that will be open to all before the end of October...”***

## FIELD TRIPS

**O**ur first fall trip was to Napatree Point, RI in early September, where we were fortunate enough to find large numbers of shorebirds.

Although it is a long walk out to the end of the point, most shorebirds congregate there, so we trekked out to see them. Our long hike was rewarded with views of a Hudsonian Godwit, as well as numbers of Willets, Semipalmated Sandpipers, Least Sandpipers,

Black-bellied Plovers, Semipalmated Plovers, Piping Plovers, Lesser Yellowlegs, Sanderlings, Short-billed Dowitchers, Ruddy Turnstones and a substantial flock of American Oystercatchers.

On our second fall trip, the trustees explored the wetlands of the Killingly, Ct. area. At Killingly Reservoir, we found a large flock of Ring-necked Ducks as well as several Pied-billed Grebes. A lone Water Pipit also passed overhead as we

scanned the ducks on the reservoir, and Swamp, White-throated and White-crowned Sparrows were present in the adjacent shrubbery. At nearby Quanduck Marsh, we found several Sharp-shinned Hawks as well as several more Pied-billed Grebes.

We are planning another trip that will be open to all before the end of October, so we will be in touch again shortly.

## EDUCATOR RESOURCES: VIDEO PRODUCTIONS



**Narrator Dr. Robert Craig introduces the topic of floodplains from the banks of the Connecticut River in Portland, Ct.**

Our expanding offerings for educators now include our first video production, entitled *Floodplains*. It focuses primarily on the Connecticut River floodplain in Portland, Ct., but it also includes some clips that illustrate student research along the Blackstone River in Uxbridge, Ma. It will be available for free download from our web site in the near

future.

This first video runs for about 34 minutes and begins at the water's edge. It traces the development of the floodplain from the riverbank to the levee, flat, slough and riverine marsh. It discusses the physical environmental factors, notably flooding frequency and soil type, that

determine how floodplain environments develop. How the biotic environment develops in light of the physical environment is highlighted next, and plant species characteristic of floodplain communities are showcased.

Plant life illustrated includes floodplain specialists like the silver maple, river birch, green

## VIDEO PRODUCTIONS :CONTINUED



**This American Oystercatcher feeding on the sandflats at Napatree Point, Rhode Island, will be featured in our second video- New England Beaches.**

*(Continued from page 4)*

ash, pin oak and black willow. Exploration of the wildlife includes close-up portraits of the Carolina Wren and Eastern Garter Snake.

Our next video will focus on the beach environment of Napatree Point, RI, and will again trace the influence of the

physical environment on the development of the biological environment.

The video begins with a review of marine life that inhabit the near shore environment and then shifts to the dunes, where the diminishing effects of wind and salt spray permit the development of simple plant communities. Further

back from the water, the dune thicket and bay-edge salt marsh are explored. Investigations on wildlife focus particularly on the fall-migrating shorebirds that are present abundantly in this environment.

The Newsletter of  
Bird Conservation Research, Inc.

90 Liberty Highway  
Putnam, CT 06260

Phone: 860 928-2178

E-mail: mail@  
birdconservationresearch.org

# Bird Conservation Research, Inc.

## Membership

- \$25 Regular member
- \$35 Family membership
- \$50 Sustaining member
- \$100 Contributor
- \$250 Patron
- \$500 Benefactor
- \$1,000 Grand benefactor

Name \_\_\_\_\_

Address \_\_\_\_\_

Town \_\_\_\_\_

City \_\_\_\_\_

State, zip \_\_\_\_\_

Phone \_\_\_\_\_

E-mail \_\_\_\_\_



Don't forget to renew your  
membership.

## MEMBERSHIP DRIVE

It is not too late to renew your membership. Please support us by returning the member renewal form on the last page of this newsletter.

Memberships provide a large part of the funds necessary to conduct our research and public education activities.

In order to continue provid-

ing these services, we need your continued support! Membership applications and payment options are also available at [www.birdconservationresearch.org](http://www.birdconservationresearch.org)