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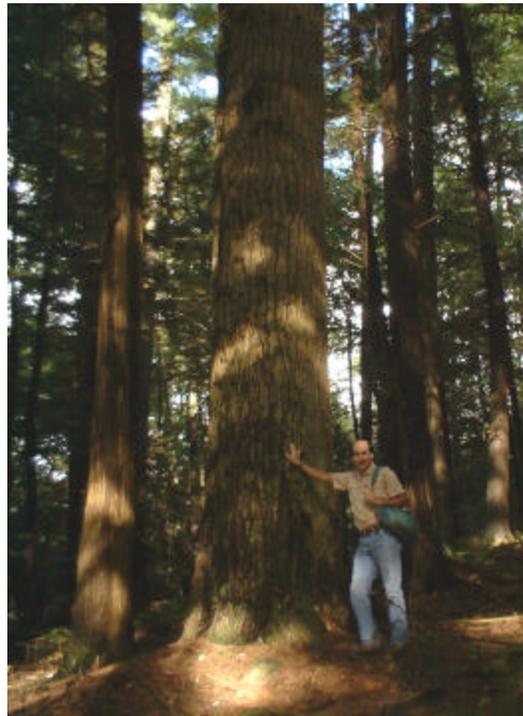
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NORTHWEST CONNECTICUT SURVEYS TO BEGIN



The region surrounding the massive trees of Gold's Pines in Cornwall will be surveyed this summer.

This spring will bring us to within a year of completing the first comprehensive, quantitative survey of southern New England's forest birds. The target of this year's survey will be the heavily forested and mountainous northwestern corner of Connecticut.

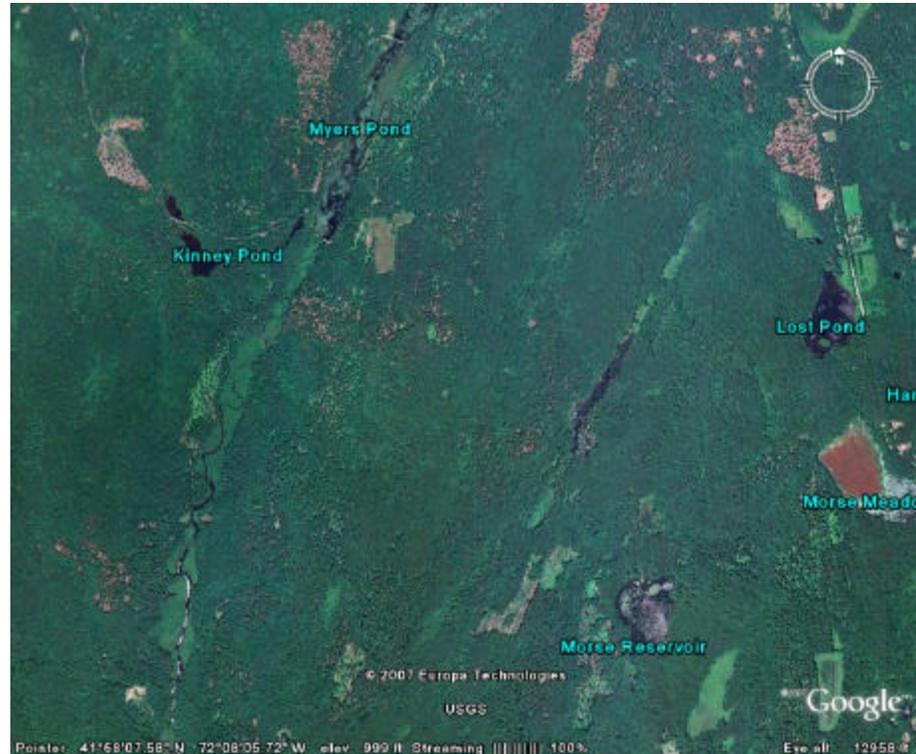
An additional 25 sites will be surveyed in this region,

bringing the total number of areas studied by the *Forest Bird Survey of Southern New England* to 127. At these sites, 1,905 sampling stations will have been established for gathering data not only on birds but also on the habitats they occupy. To date, nearly 40,000 winter and summer bird observations have been made, along with over 9,500

habitat measurements.

Northwestern Connecticut will be a particularly interesting area to survey because a number of bird species reach their southern breeding limit there. Species like the Swainson's Thrush are restricted as breeders to this region.

FOREST FRAGMENTATION STUDIES

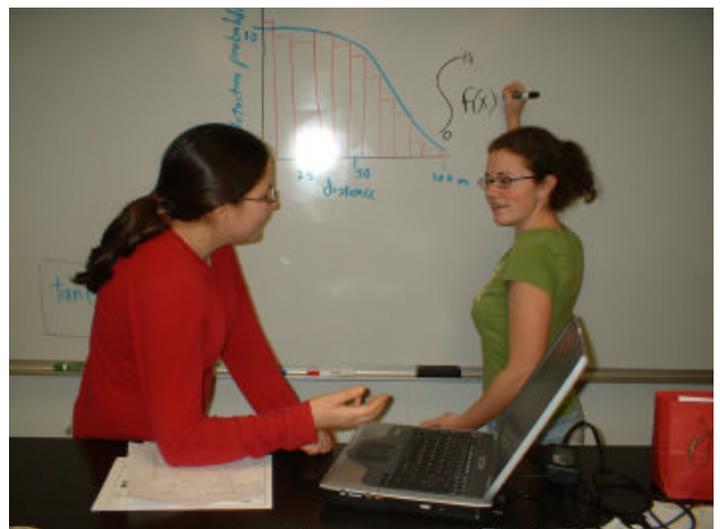


The forests of Union and Ashford, Connecticut are largely unbroken and have bird populations indicative of extensive woodlands.

“Our preliminary data for central Connecticut show profound differences with those ... from more heavily forested regions.”

Until this past year, the *Forest Bird Survey of Southern New England* has focused on eastern Connecticut and western Rhode Island: regions where forest cover is extensive and still largely unbroken. With the 2006-2007 survey of central Connecticut, however, we entered a region where forests often exist as isolated tracts surrounded by a sea of urbanization.

Even our preliminary data for central Connecticut showed profound differences with those we have gathered from more heav-



Intern Meagan Boucher explains to intern Kathryn Mayo how bird survey data is converted to population densities by using techniques in integral calculus.



Even the fine lowland forests of the Hockanum River in East Hartford have their value for forest birds compromised by being so heavily fragmented and isolated from other tracts.

ily forested regions. Species like the Scarlet Tanager, Veery, Red-eyed Vireo, and Ovenbird proved to be uncommon to absent at many central Connecticut tracts, even though these same species were the most abundant birds in forests to the east.

Previously, at sites surrounding metropolitan Providence, Rhode Island, there were tantalizing clues that even isolated, large forests may not be equivalent to forests in regions of contiguous cover. However, with our now much larger samples of isolated forests in central Connecticut, it is clear that such forests have vastly different bird populations than those previously surveyed.

Student interns are presently using sophisticated computer software to analyze population data gathered through field studies. They also use additional software to characterize the degree of forest fragmentation present at each of the study sites.

A growing body of research has suggested that fragmented forests have higher rates of nest predation, lower amounts of forest interior, and lower amounts of food than in unfragmented forests. Forest bird species may continue to inhabit fragmented forests, but they may not be able to produce sufficient young to sustain their populations in these areas.

Forest fragments have come to be known as “sink” habitats because of their inability to support viable populations of certain species. In contrast, extensive, contiguous forests, like those found in eastern and northwestern Connecticut, are referred to as “source” habitats, because birds may produce more young than the forests can support. Excess individuals from sources can colonize new areas or sink habitats.

“Even isolated, large forests may not be equivalent to forests in regions of contiguous cover.”

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The 2007 forest bird survey team for Blackstone River State Park in Uxbridge, Massachusetts. The team evaluated at each survey point 1) tree diameters, 2) canopy cover, 3) shrub cover, 4) soil moisture, 5) forest type, and 6) bird populations.

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statistical analysis software, paid our student interns, and helped defray our considerable travel expenses. In order to expand our programs we need your continued support.

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