



WINNEBAGO COUNTY

SOIL AND WATER CONSERVATION DISTRICT

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June 17, 2004

Ed Anderson
Illinois Department of Natural Resources
Dearborn Hall
205 E Seminary St
Mt. Carroll, IL 61053

Dear Ed:

The information that is enclosed is for **grant # 04-027W**, Sand Bluff Bird Observatory. The information includes: news release, final report, site pictures, a receipt for nets, and a computer disk. The smaller pictures are from Sand Bluff's annual "Bird Fest," a public education event that is held every May. The larger pictures are of the banding station itself, located in front of the bottomland forest habitat adjacent to the Sugar River, and a photo of the sand prairie area with the upland deciduous forest located on the sand bluff overlooking the prairie.

If you have any questions or comments please feel free to give me a call (815-965-2392 x 3) and I would be happy to help.

Sincerely,


Brian Russart

Winnebago County Conservationist
Sand Bluff Observatory Director

Mist Netting to Inventory Songbird Population Trends
Sand Bluff Bird Observatory
Grant # 04-027W

Introduction

During the past 34 years of bird banding at Sand Bluff Bird Observatory the data collected has shown troubling changes in bird populations. As land use has changed in the Midwest and across the continent, exotic species have spread, regional temperatures have increased, and native plant communities have been converted to development or agriculture. At the same time, significant changes have occurred in songbird and raptor populations. Current banding numbers when compared to the previous 34 years show substantial population declines of songbirds from all habitat types as well as historically Southern bird species appearing at more regular intervals in Northern Illinois. It is extremely important to monitor bird populations through banding so that the data that is retrieved can be compared to past records. The data that is obtained is provided to various government agencies, local conservation organizations and the general public. The information is used by these agencies and individuals for land use planning, wildlife habitat management, and public education.

Materials & Methods

The Sand Bluff Bird Observatory bands birds from late March to the end of May in the spring and bands in the fall from mid-August until late October. All banding takes place under the supervision of Sand Bluff founder and master bander, Lee Johnson. Seven hundred and twenty mist nets (12m x 2.6m x 36 mm black nylon mesh) are stretched between aluminum poles (ground level to 5.2m in height) located in a variety of habitat types throughout the Color Sands Forest Preserve. Nets are placed in a straight line that form a "net run." The four net runs at Colored Sands are located in the following habitat types: bottomland forest, deciduous upland forest, sand prairie, woodland edge. The nets are opened Friday afternoons and closed Sundays at noon. During banding hours nets are checked every hour by trained "net checkers" that removed all birds and bring them back to the banding station for recording. During inclement weather the nets are checked every half-hour or closed entirely. Birds removed from the nets are placed in cotton mesh bags and are separated by species or individuals depending on the species captured. Nets are checked from dawn till an hour after dark.

Once the birds are brought back to the banding station they remain in the bags and are placed in a holding box until they are banded. Prior to banding the following information is gathered from each bird: species, sex, age (if possible), wing cord, tail extension (fly-catchers only) and unusual characteristics. Once this

information is recorded each bird is fitted with the appropriate sized USFWS band. The band number is recorded and the bird is then released.

During the banding process the volunteer staff uses this opportunity to educate school groups, adult education groups, boy scouts, individuals, and families. The banding station also puts on a "bird fest" the first weekend in May. The "bird fest" is a two day educational event to educate the general public to the plight of songbirds and their habitat requirements.

Results

In the spring of 2003 the sand prairie area was burned by the Winnebago County Forest Preserve to maintain and encourage native plant diversity. Through this process plant litter was removed from the site. The species captured after the burn in 2003 differed somewhat from the species capture the spring of 2004 when no burn was conducted. The 2003 post-burn species included healthy numbers of Savannah and Vesper Sparrows, Robins, Yellow Shafted Flickers, Gold Finches, and Field Sparrows. The spring of 2004 (no burn) species consisted of Red-winged Blackbirds, Eastern Meadow Larks, Song Sparrows, Common Yellow Throats, Bobolink, Field Sparrows, Grass Hopper Sparrows, Swamp Sparrows, Goldfinches, and Indigo Buntings. These species changes based on habitat manipulation provide some interesting short term results. However, banding throughout the different habitat types on the property during the past year have continued to show troubling declines. Even resident non-migratory birds such as Chickadee, Blue Jay, Cardinal, etc have shown substantial declines over the past three years, which corresponds to the time frame that the West Nile Virus has been in Winnebago County. There are a handful of species such as the Eastern Bluebird, Chipping Sparrow, and Brown-headed Cowbird that are showing substantial population increases, but they are the exception not the rule. The family of birds currently showing the largest decline is the wood warblers with grassland birds slightly behind them.

Over the course of the grant timeline Sand Bluff Bird Observatory has put on education programs for over 2000 students and adult education groups. This year's "bird fest" drew slightly over 300 individuals.

Discussion and Summary

All banding data from 1970 to the present has been entered into a computer database. Mr. Johnson is currently editing this data for accuracy and should be ready for publication early next year. The data should give the natural resource management organizations an inside look at population trends and allow them to develop short term and long term songbird habitat management plans. It is hoped that through this process songbird populations can be stabilized and increased through wise management of natural resources, development planning, and public education/support.