Wintering Sparrow Habitat Project, 2006-2008

December 2006
I brainstormed with Pete Timmer about the possibility of creating additional habitat for wintering sparrows because so much of their prime habitat is being lost to development and agriculture expansion. Sparrows were becoming harder and harder to find in Polk County.

January 2007
Pete and I discussed the project with Tenoroc Fish Management Area Manager Danon Moxley. We suggested enhancing some vacant land in the Bridgewater section for the benefit of sparrows. We will be planting millet seed and building brush piles. A selection of other plants found in active sparrow feeding grounds will be utilized.

February 2007
We selected two 5 acre plots about one mile inside the park entrance for our project.

May 2007
With the assistance of the Citrus and Education Center in Lake Alfred, the two fields were disked.

June 19, 2007
With the assistance of CREC equipment both fields were planted in millet seed. Plot one is the Japanese variety and plot two the Florida variety. Birds on the ground; 100 Cattle Egret, 10 Boat-tailed Grackle, 3 Red-winged Blackbird, 1 Killdeer, 1 Eastern Meadowlark, one Northern Cardinal.

June 29, 2007
Pete, Danon and I placed the signs on the two plots. No rain since the last post.

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Wintering Sparrow Enhancement Plot #1

Sponsored by
The Lake Region Audubon Society and the Florida Fish and Wildlife Conservation Commission

2007

3 ft X 2 ft
Plastic

Wintering Sparrow Enhancement Plot #2

Sponsored by
The Lake Region Audubon Society and the Florida Fish and Wildlife Conservation Commission

2007
July 5, 2007
Pete planted 25 Beautyberries on plot #2 while I picked up fishing line. Then we both cut brush nearby and started a brush pile on plot #1.

August 2, 2007
I inspected plot #1 and found that while the grass had reached a height of 10 inches or more and very little millet seed had germinated. On Plot #2, some millet was growing in relatively bare sandy patches but not in the grassy areas. I found 8 beautyberry plants still alive.

August 17, 2007
Pete and I planted 25 Beautyberry plants in Plot #1. Millet was still nearly absent from plot. In plot #2 millet was evident in bare patches and we located a total of 12 Beautyberry plants. It appears that millet can not compete with the grass growing in the fields.
We added to the brush pile in Plot #1. Both plots were dry showing a lack of rain.

August 24, 2007
Pete and I watered the Beautyberries in plot #1 which looked dry but not dead. The plants in Plot #2 looked about the same as last week. We started construction of a brush pile in Plot #2. Rain is needed badly.

August 31, 2007
We planted 7 more Beautyberry plants at plot #1 and checked the other two dozen which all were doing well. Much needed rain had helped a lot. I hand fertilized the 6 patches of millet which were evident. In Plot #2 we planted 20 more Beautyberry plants and watered them in. Then we hauled 4 more loads of Brazilian Pepper branches to our brush pile in plot #2. An examination of both plots confirmed that millet will not grow in an area where grasses are thick. Only in the relatively bare ground did we get any significant growth.

October 3, 2007
Inspected Plot #1 and #2 and found no sparrows. The beautyberries plants were doing well in plot 1 but not so well in plot 2. A few millet plants had matures and gone to seed in plot 2 but nothing was found in plot 1. Millet planting appears to be a failure.
Both plots have a thick covering of weedy plants with a few relatively bare spots. Species noted are hairy indigo, dog fennel, and various grasses.

November 11, 2007
We found one dozen Savanna Sparrows on plot #2 scattered about. The beautyberry plants still look healthy. Other birds include a snipe, several phoebes, meadowlarks, a shrike, a palm warbler, a jay, many gnatchatchers and a mockingbird.

November 30, 2007
Audubon Grant Application

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Chapter Name and Code: Lake Region Audubon Society code E25; 7XCH

Project Name: Wintering Sparrow Enhancement Project

Amount of Funding Requested: $900       Date Approved by Chapter Board: Nov. 14, 2007
Brief Description of Project:

Wintering sparrow populations in Central Florida increased sharply in the 1980s and 1990s following severe freezes that provided favorable habitat in abandoned groves. As those groves have been converted to residential development and agricultural uses, populations have declined to low levels. There is a need to develop more favorable habitat on public lands which will provide more permanent situations for wintering sparrows in Central Florida. In order to better attract more wintering sparrows to Polk County, we will enhance the food supply on two 5 acre plots provided by the Tenoroc Fish Management Area near Lakeland as well as making physical improvements to provide more favorable habitat. We plan on establishing numerous brush piles which sparrows normally utilize for cover as well as planting millet seed, beautyberry, and other appropriate native plants throughout the area. This has never been done before at Tenoroc or anywhere in Polk County for the benefit of wintering sparrows. We are cooperating with both the Tenoroc Fish Management Area who are providing the land and gave permission to use the study plots as well as the University of Florida that provided equipment and man power for the initial disk of some of the area.

Items/Activities to be accomplished in Project:

Enhance and improve upland grassland habitat on the Bridgewater addition to the Tenoroc Fish Management Area to provide cover and forage for up to seven species of North American sparrows. That would include savannah, chipping, white-crowned, vesper, swamp, clay-colored, and grasshopper sparrow. Our goal is to increase the number of sparrows on the plots from one or two species with low numbers which we found before the study to at least several dozen individuals and to provide more diverse habitat to attract other species. Any success on our study plots can be imitated on a greater scale throughout Central Florida. Although the primary benefactor will be the sparrow populations, many birders and other nature lovers will benefit from our project.

Budget for Funding (Please note that any funds unexpended following completion of the Project must be returned to National Audubon Society):

<table>
<thead>
<tr>
<th>Item</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disking 2@ $200</td>
<td>$400</td>
</tr>
<tr>
<td>Drilling millet</td>
<td>$200</td>
</tr>
<tr>
<td>Seed 4-50 lb bags $25</td>
<td>$100</td>
</tr>
<tr>
<td>Plants (various seed bearing)</td>
<td>$100</td>
</tr>
<tr>
<td>Transportation</td>
<td>$100</td>
</tr>
<tr>
<td>total $900</td>
<td></td>
</tr>
</tbody>
</table>

Timeline for Completing Project, including date of final report:

Phase one has already been started. This winter we will monitor the plots monthly during the winter and next June we will initiate replanting of millet seed. Although the project is ongoing, for the purpose of this grant, we should be complete by next summer - August 30, 2008.
Charles Geanangel and Pete Timmer of the Lake Region Audubon Society provided start up money for the project by the purchase of two large signs and 100 pounds of millet seed. They also provided the beautyberry plants and the labor in construction of three large brush piles. This is the first time LRAS has applied for this collaborative project.

December 15, 2007
I inspected plot # 2 on the CBC and found 2 Savanna Sparrows.

January 6, 2008
Our grant was rated #1 and we were awarded $900 from Audubon.

January 9, 2008
Pete and I checked plot #1 and found 6 Savanna Sparrows using the eastern brush pile, actually perching on it for some time. This certainly confirms the wisdom of building brush piles. On plot # 2 we found one or two Swamp Sparrows on the fringe of the field and we continue to find Wilson’s Snipe using the plot although the area is quite dry. In a discussion with another researcher biologist, Nancy Bissett, she stated that last growing season she too had no success with the seeds she planted in restoration areas due to the extreme drought.

February 10, 2008
Pete and I inspected project and found beautyberries at both plots but in reduced number. A flock of nearly 20 sparrows were found on Plot #1 including 3 Vesper Sparrows. Once again the brush piles were used by the sparrows. We found no sparrows in plot #2. We added a truckload of brush to two of the three piles with mostly Brazilian Pepper and Chinaberry trees being used.

February 29, 2008
Pete and I inspected the plots and found a single Savannah Sparrow in plot #2. Beautyberry plants were surviving in plot # 1 and to a lesser extent in Plot #2. We constructed brush pile number four in Plot #2. Cool in the morning and warming up rapidly by noon. A bit of rain fell last week but still very dry.

April 2, 2008
Pete and I added to one of the brush piles in Plot #2. We chased a Sharp-shinned Hawk off of the second brush pile. We inspected Plot #1 and found the Beautyberry doing well but Plot #2 contained just a half dozen plants. Surprisingly the fields actually had a bit of standing water in some areas. We meet ranger Tim King on the road and he mentioned that 2 ½ inches of rain fell two days ago.
Back in the office Tim contacted Michelle from FDEP about hiring someone to do some deep disking for us at about $65 per hour. Pete arranged for her to do this at her connivance with our supervision. We also arranged for some brush being cut from near the main office to be placed in our test plots. Although we both need the exercise, this met with our approval.

May 3, 2008
Pete and I checked the plots today and no new brush piles have appeared. I will e-mail and see why there is no progress on that front. We hand watered the Beautyberry plants and found twenty plants still surviving on each plot. We flagged both plots to show where the disking will take place next week. We have alternated the disked areas with some undisturbed rows.

May 13, 2008
It is a month before the start of the rainy season so today we hand watered the beautyberry plants in both plots and chopped Brazilian Pepper trees to add to all of the brush piles. The Beautyberry plants are still alive but wilted. They appear to die back to the roots but with some water they revive. We will know better if and when we get the summer rains. Michelle, the lady in charge of disking, still has not called so we have to wait on that too. National Audubon seems to have sent our grant check of $900 to the wrong account. I am working on that glitch now.

June 15
Talked to Michelle today and made arrangements for the disking. She said that John would do the work sometime in the next few days and that he also probably could do the drilling, all at no expense to us.

June 18, 2008
I met John at the Bridgewater site and he did a great job disking strips where we placed the flags. In preparation for the drilling I called the feed store in Frostproof (930 Hwy 630, Tel. 863-635-4473) and got the following information.
We need to plant Florida ‘round-top’ Millet at 16 pounds per acre. The setting should be as shallow as possible and we should allow 90 days before the seed tops appear. This means that we need to plant on August one if we want seed for November one. Pete is in Alaska now so we will discuss this when he gets back

July 11, 2008
Pete and I inspected the two plots and found the disking to be satisfactory. We planted and watered 50 more Beautyberry plants in the two plots and agreed that I would contact Michelle to arrange for the drilling of the millet seed which we would purchase next week. Tim King from the TFMA measured the area disked and confirmed it was 2.86 acres. Although the summer rains have started the plots are still rather dry.

July 20, 2008
I purchased 50 pounds of Red-top millet seed from Frostproof for $27.

July 29, 2008
John and David from the Florida Department of Environmental Protection drilled the millet seed this morning and I photographed the event. Pete and I discussed future planting of shrubs with the remaining money of the grant.

August 15, 2008
I checked the fields and the millet was growing nicely and so was the Beautyberry. The rains had worked their magic.

September 3, 2008
I purchased the following from the Natives Nursery in Davenport ten plants each:

<table>
<thead>
<tr>
<th>Common name</th>
<th>botanical name</th>
<th>size</th>
<th>unit</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flatwoods Plum</td>
<td>Prunus umbellata</td>
<td>3 gal</td>
<td>7.00</td>
<td>$70.00</td>
</tr>
<tr>
<td>Simpson Stopper</td>
<td>Myrcianthes fragrans</td>
<td>3 gal</td>
<td>4.50</td>
<td>$45.00</td>
</tr>
<tr>
<td>Walter’s Viburnum</td>
<td>Viburnum obovatum</td>
<td>3 gal</td>
<td>4.50</td>
<td>$45.00</td>
</tr>
<tr>
<td>Red Chockcherry</td>
<td>Photenia pyrifolia</td>
<td>1 gal</td>
<td>2.50</td>
<td>$25.00</td>
</tr>
<tr>
<td>Pineland Lantana</td>
<td>Lantana depressa</td>
<td>1 gal</td>
<td>2.25</td>
<td>$22.50</td>
</tr>
<tr>
<td>Florida Privet</td>
<td>Forestiera segregata</td>
<td>1 gal</td>
<td>2.25</td>
<td>$22.50</td>
</tr>
</tbody>
</table>

Delivery to site $43.00
Grand Total $275.50

September 12, 2008
I took delivery of the plants at the office at Tenoroc and watered them.

September 14, 2008
Pete, Danon, and I hand planted the 60 shrubs in 5 groups on the two plots and watered them lightly. The groups contained two of each species. We also inspected the millet and Beautyberries which are all doing well but could use some rain.

The flags on the plants are as follows;
- Plum: Yellow
- Stopper: Black dot
- Lantana: orange check
- Chokeberry: orange
- Privet: yellow/black stripe
- Viburnum: pink

55555555555555555555555555555555555555555555555555555555555555555555555555555
End

Sept 18, 2008
Pete and I watered all of the 60 plants using a 40 gallon barrel. No rain in sight. We mounded the plants to hold water better.

Sept 22, 2008
Pete is in Africa, Tim and Danon helped me water. I staked the Beautyberries where I could find them. There is still no rain and the millet is not growing.
September 27, 2008
Tim helped me water the plants. Although it rained at the office nearly one inch, the plots about three miles away looked dry. Some of the plants appeared stressed but most were in good shape. The millet is brown and short. We need rain for sure.

September 30, 2008
Pete and I watered all the plants. The soil was a bit moist from rains on the 29th.

October 4, 2008
Pete and I watered all the plants again by hand. Still dry.

October 8, 2008
Watered plants, some rain showers made soil damp.

October 13, 2008
We watered the plants although some rain has been in the area the soil is still drying out. All 60 plants are alive although some are losing leaves but the majorities are doing all right. No sparrows have been found on the sites.

October 20, 2008
Watered with Tim, plants are still holding up but rain is still lacking.

October 25, 2008
We had an area wide rain which dropped about an inch of rain so I didn’t have to water.

October 31, 2008
I was busy so Pete watered today. Pete’s comments:
- Plants - most are still ok, but except for a couple, most of the lantana appear dead. I watered them anyway. Most of the rest appear a bit scalded by the cold dry wind, but seem to be surviving. The beauty berry got really scalded and some have died back, but as we know, they’ll probably report.
- birds - didn’t have much in Plot 1 - just a few palms in the brush pile and a phoebe there as well. One pine warbler in a pine tree; in Plot 2, I had a lot of sparrows flying up from the field, but they either flew off a long ways and dropped back into the grass. When I walked them up they just flew off. So didn’t get great looks, but I’m guessing 10-12 savannahs. One had white in the tail and was not a palm, so I guess one vespers. Also one snipe in the usual spot. When I was driving out I saw a bird in the top of some brush across from plot 1. Turned out to be an immature white-crown. He stayed as long as I wanted to watch. I worked the area, but couldn’t find anything else.

November 9, 2008
Pete and I watered today; for the end of the rainy season it is very dry. The Beautyberry plants are mostly gone. They may come back from the roots but it is hard to find any of the plants on either plot to water. The other plants are losing their leaves but that might just be normal winter occurrences, we won’t know until June. The little flock of sparrows was active on plot two like last week and we did have a small flock of bobwhites, another target bird for us.

November 20, 2008
We watered today and the dry weather is holding on firmly. The beautyberries are almost all dormant or dead. It’s almost impossible to find them to put water on them.
December 4, 2008
I lead a short field trip to show about 40 Auduboners our project. They were very supportive although we could show them few sparrows. Then I rated the all of the plants on a scale of 0 to 5.

### Rating Plants in sparrow plots

<table>
<thead>
<tr>
<th>Plant</th>
<th>Color</th>
<th>Plot #1a</th>
<th>Plot #1b</th>
<th>Plot #2a</th>
<th>Plot #2b</th>
<th>Plot #2c</th>
<th>Ave</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plum</td>
<td>Yellow</td>
<td>1,1</td>
<td>2,1</td>
<td>2,1</td>
<td>2,2</td>
<td>2,1</td>
<td>1.5</td>
</tr>
<tr>
<td>Stopper</td>
<td>Black dot</td>
<td>2,2</td>
<td>3,3</td>
<td>3,3</td>
<td>3,3</td>
<td>3,2</td>
<td>2.7</td>
</tr>
<tr>
<td>Lantana</td>
<td>Orange check</td>
<td>1,1</td>
<td>1,1</td>
<td>1,1</td>
<td>1,1</td>
<td>1,1</td>
<td>1</td>
</tr>
<tr>
<td>Chokeber</td>
<td>Orange</td>
<td>1,1</td>
<td>2,2</td>
<td>2,3</td>
<td>3,2</td>
<td>3,3</td>
<td>2.2</td>
</tr>
<tr>
<td>Privet</td>
<td>Yellow/black</td>
<td>4,3</td>
<td>1,3</td>
<td>2,2</td>
<td>3,2</td>
<td>2,2</td>
<td>2.4</td>
</tr>
<tr>
<td>Virburnum</td>
<td>Pink</td>
<td>3,3</td>
<td>2,3</td>
<td>2,2</td>
<td>2,2</td>
<td>3,2</td>
<td>2.4</td>
</tr>
</tbody>
</table>

12/4/2008
- 0 dead, no plant
- 1 no leaves
- 2 a few leaves
- 3 several branches with leaves
- 4 80% leaves
- 5 all leaves green with berries

December 14, 2008
Bingo, we got sparrows. Pete, I, and Tom Palmer chased up several dozen sparrows today on a brush cutting exercise. In plot #2, west we trimmed back the Lantana plants by on third on the advice of Bill Bissett but it appeared the plants were dead. Spring will tell.

Plot #1
- 3 Vesper
- 1 swamp

Plot #2
- 1 Vesper
- 25 Savannah
- 2 grasshopper
- 2 white-crowned
- 5 species and 35 individuals

December 17, 2008
Pete and I spent some time checking the plants and trimmed the top 1/3 off of some of the Lantana plants as recommended by Bill Bissett. The two plants were in Plot #2, far west group. We also checked for sparrows for the CBC and found everything but the White-crowned.

December 20, 2008
Missed the White-crowned again but found 6 Grasshopper Sparrows along with the other species.
Jan, 10 2009
Pete and I spent time building more brush piles and looking for sparrows. The weather is turning very cold, maybe 27 degrees by morning. We kicked up about a dozen savannahs and a sedge wren or two.