

ECOLOGICAL STUDIES OF WILLOW (*SALIX CAROLINIANA*):
MONTHLY STATUS REPORT #12



Willow sapling in marsh – photo by Ken Snyder, SJRWMD

Pedro Quintana-Ascencio
John E. Fauth
Luz M. Castro-Morales

Department of Biology, University of Central Florida,
4000 Central Florida Boulevard, Orlando, Florida 32816

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Ecological Studies of Willow (*Salix caroliniana*): Monthly Status Report #9
Covering the time period from January 1-31, 2010

This status report summarizes progress made on the Ecological Studies of Willow project through January 31, 2010, with reference to the tasks and timeline outlined in the Scope of Work and presented in Table 1 below.

Table 1. Timeline of tasks to be accomplished in Years 1 & 2. Tasks initiated and underway in this reporting month are highlighted in blue, completed tasks in red.

YEAR 1

Quarter	Months	Tasks accomplished
1 st	Oct – Dec, 2008	Initiate and complete Task 1 (<i>Finalize research plan</i>)
2 nd	Jan – Mar, 2009	Initiate Task 2.1 (<i>Germination & early survival and growth experiments</i>) Initiate Task 2.4 (<i>Life history</i>)
3 rd	Apr – Jun, 2009	Continue Task 2.1 (<i>Germination experiment</i>) Initiate Task 2.2 (<i>Willow transplantation</i>) Initiate Task 2.3 (<i>Fire response</i>) Continue Task 2.4 (<i>Life history</i>)
4 th	Jul – Sep, 2009	Continue Task 2.4 (<i>Life history</i>) Complete Tasks 2.1 & 2.2 (<i>Germination experiment & Willow transplantation</i>) Complete Task 3.1 (<i>Data analysis and final report, Year1</i>)

YEAR 2

Quarter	Months	Tasks accomplished
1 st	Oct – Dec, 2009	Continue Task 2.3 (<i>Fire response</i>) Continue Task 2.4 (<i>Life history</i>)
2 nd	Jan – Mar, 2010	Continue Task 2.3 (<i>Fire response</i>) Continue Task 2.4 (<i>Life history</i>) Initiate Task 2.5 (<i>Spatial analysis of willow distribution</i>)
3 rd	Apr – Jun, 2010	Initiate Task 2.2 (2nd iteration, <i>Willow transplantation</i>) Continue Task 2.3 (<i>Fire response</i>) Continue Task 2.4 (<i>Life history</i>) Continue Task 2.5 (<i>Spatial analysis of willow distribution</i>)
4 th	Jul – Sep, 2010	Complete Task 2.2 (2nd iteration, <i>Willow transplantation</i>) Continue Task 2.3 (<i>Fire response</i>) Continue Task 2.4 (<i>Life history</i>) Continue Task 2.5 (<i>Spatial analysis of willow distribution</i>) Complete Task 3.2 (<i>Data analysis and final report, Year2</i>)

Progress on Task 2.1 – Germination and Early Survival and Growth Experiments

We planned additional experiments on seed viability and flooding tolerance. We collected willow cuttings for these experiments, as reported in the next section.

Progress on Task 2.2 – Willow Transplantation

A. Competition Experiment – We quickly checked the existing willow competition experiment during the January 22nd field trip with District personnel. We plan to end this experiment on February 20, 2010.

On January 11th & 18th, Dr. Quintana-Ascencio and graduate students in his restoration ecology course collected willow cuttings to use in this year's experiments. On both occasions, >280 cuttings were collected from the site: along State Route 50 (January 11) and along State Route 520 (January 18). Cuttings were returned to UCF and placed in water-filled buckets to initiate rooting. Cuttings produced roots and shoots and we plan to pot them on February 22, 2010.

B. Hydrology Experiment – We were not scheduled to sample this experiment during this reporting period. We disassembled the experiment on February 13, 2010 and will report the initial results in the February report.

Initiate Task 2.3 - Fire response

On January 22nd and 29th, Drs. Quintana-Ascencio and Fauth met with District staff to plan the fire experiment and visit potential field sites. On January 22nd, we identified a suitable site within Blue Cypress Marsh Conservation Area (see cover photo) and revised our experiment to include more replication within sites. On January 29th, we identified a second site (“Six Mile”) to use as the second experimental block. On February 1, 2010, we collected before-fire data on this site and randomly selected one-half of the sampling units to be burned. Details about this experiment will be in the next report.

Progress on Task 2.4 - Life History

Our focus this period was on collecting willow cuttings and beginning the fire experiment, so we did not collect any additional demographic data.

Progress on Task 2.5 – Spatial Analysis of Willow Distribution.

We did not modify our existing spatial model during this period.

Summary of Activity

During this reporting period, the UCF team collected willow cuttings; and with District staff quickly checked the remaining block of the competition experiment, planned the fire experiment and identified suitable field sites. Total time devoted to the project by UCF personnel exceeded that of two full-time equivalents (Table 2).

Table 2. Summary of activity during the January, 2010 reporting period.

Date	Activity	Personnel	Approximate number of UCF person-hours
11 January 2010	Collected willow cuttings from site along State Route 50	UCF	32
18 January 2010	Collected willow cuttings from site along State Route 520	UCF	32
22 January 2010	Met with District staff to plan fire experiment and reconnoiter field site in Blue Cypress Marsh Conservation Area	UCF District	16
29 January 2010	Met with District staff to reconnoiter field sites in "Six Mile" and other areas	UCF District	16

Total = 96 person-h