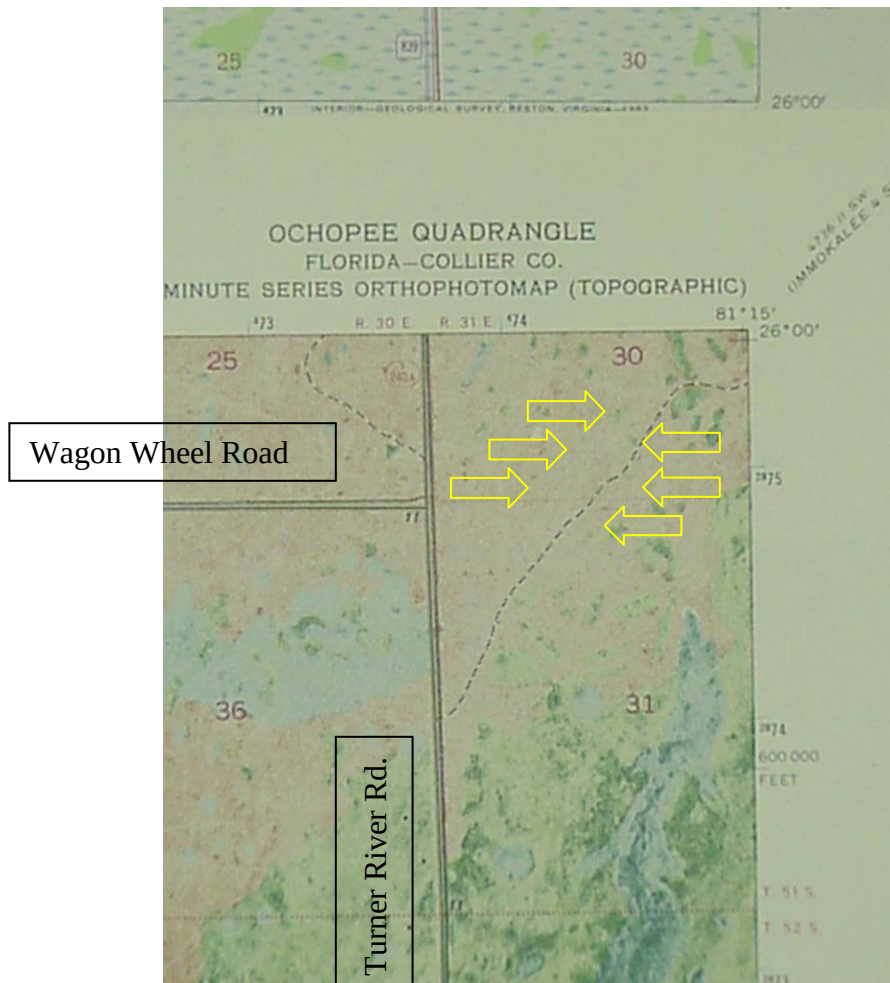


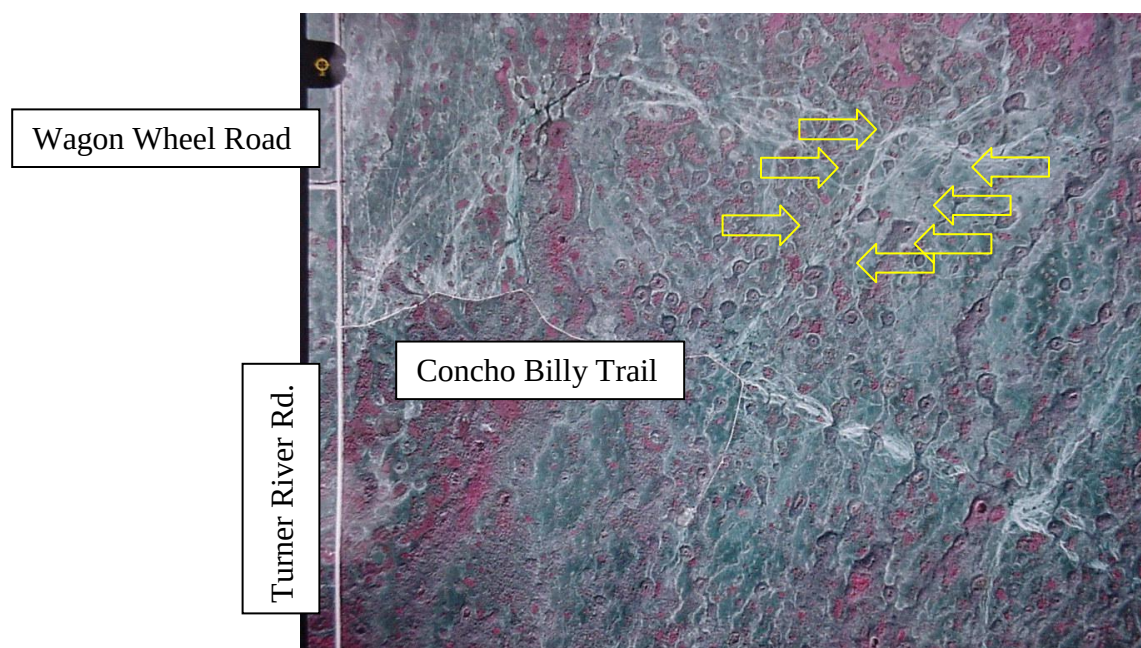
Concho Billy Off Road Trail Vehicle Restoration

Introduction

As part of an Off Road Vehicle Management Plan that was approved by the National Park Service, US Department of the Interior, Big Cypress National Preserve has undertaken restoration activities in several areas that have been ecologically compromised by off road vehicle activities. An area of approximately 60 acres adjacent to Concho Billy Trail has been identified as a research site for restoration. Within this area are two single hectare quadrats and five transects that have been established to monitor the progress of habitat regeneration and succession. Also within this area, two restoration treatments have been put in place: one treatment is completely natural regeneration in which no site alteration will occur; the second treatment uses mechanical equipment to level the vehicle ruts in the soil without mixing the surface soil with subsurface components. Plant cover will be monitored to determine whether either of these treatments is more effective for prairie community recovery. Data were gathered from the restoration areas in the spring of 2001, immediately after site identification and preparation, to quantify plant cover and site topography.



Northeastern corner of USGS Ochopee Quadrangle map with Concho Billy Trail area indicated. The location of the approximately sixty acre Off Road Vehicle trail restoration area is outlined with yellow arrows.



False color infra-red satellite imagery of the Concho Billy Trail area. The location of the approximately sixty acre Off Road Vehicle trail restoration area is outlined with yellow arrows. Other trails and areas heavily used by off road vehicles produce light colored registers on this imagery.

Vegetative Sampling.

Percent plant cover for Baseline was estimated with photographs and limited site inspection and Time Zero restoration stage was estimated with quadrat and transect cover measures. Percent cover for Year One will be estimated with transect and quadrat cover measures in late spring 2002 (Table 3.).

Table 3. Concho Billy Off Road Vehicle Trail Restoration site: common vascular plant species.

Species:	Time:	Baseline	Time Zero
	Estimated Percent Cover:		
<i>Agalinis</i> sp.		<10	1
<i>Annona glabra</i>		<1	*
<i>Aster bracei</i>		<1	*
<i>Bacopa caroliniana</i>		<10	*
<i>Cassytha filiformis</i>		<1	*
<i>Cladium jamaicense</i>		10	3

<i>Crinum americanum</i>	<10	2
<i>Dichantheium</i> sp.	<10	*
<i>Dyschoriste angulata</i>	<1	*
<i>Eleocharis geniculata</i>	<1	*
<i>Elytraria caroliniana</i>	<1	*
<i>Eragrostis elliottii</i>	<10	*
<i>Flaveria linearis</i>	<10	*
<i>Heliotropium polyphyllum</i>	<1	*
<i>Hymenocallis palmeri</i>	<10	*
<i>Iva microcephala</i>	<1	*
<i>Juncus megacephalus</i>	<1	*
<i>Mitreola sessilifolia</i>	<1	*
<i>Muhlenbergia capillacea</i>	10	*
<i>Panicum repens</i>	<10	2
<i>Panicum tenerum</i>	<10	3
<i>Paspalum monostachium</i>	<10	2
<i>Phragmites australis</i>	<1	*
<i>Pluchea odorata</i>	<10	*
<i>Proserpinaca pectinata</i>	<1	*
<i>Rhynchospora divergens</i>	<10	4
<i>Rhynchospora</i> sp.	<1	*
<i>Sabatia grandiflora</i>	<1	*
<i>Schizachyrium rhizomatum</i>	<10	*
<i>Setaria geniculata</i>	<10	*
<i>Solidago stricta</i>	<1	*
<i>Taxodium distichum</i>	1	*

* species noted as present, but not sufficiently common to estimate cover.

Photographic Documentation.



Restoration sites south of Concho Billy Trail (May 2001). One site (left) was prepared by leveling wheel ruts without mixing the surface soils with deeper substrates; another area (right) was left with no surface preparation. Both will be left to allow natural establishment, recruitment, and succession of plants. Plant cover and diversity will be monitored in each area.

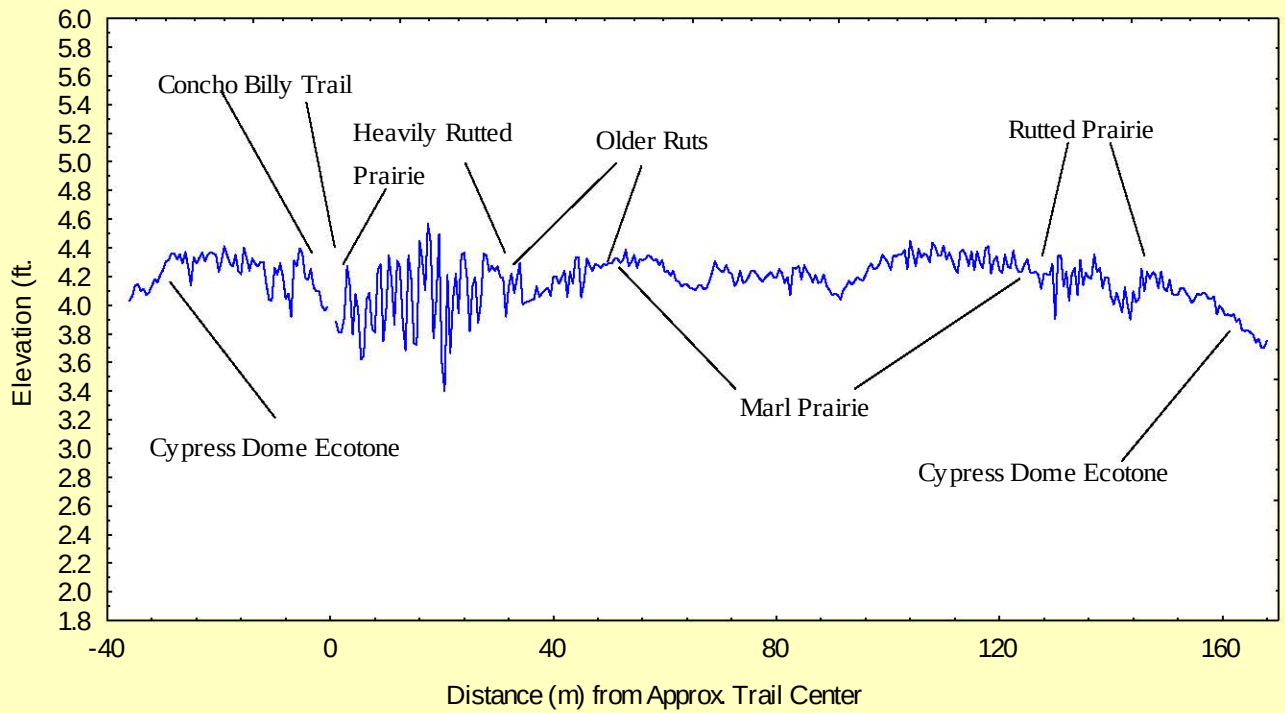


Restoration sites south of Concho Billy Trail (May 2001). Aerial aspects of the restoration site with substrate prepared by leveling wheel ruts (left), and the restoration site with no substrate restoration (right). Each of these sites is identified for photo-documentation so that subsequent photos of each area can be made to compare growth of plants and succession.

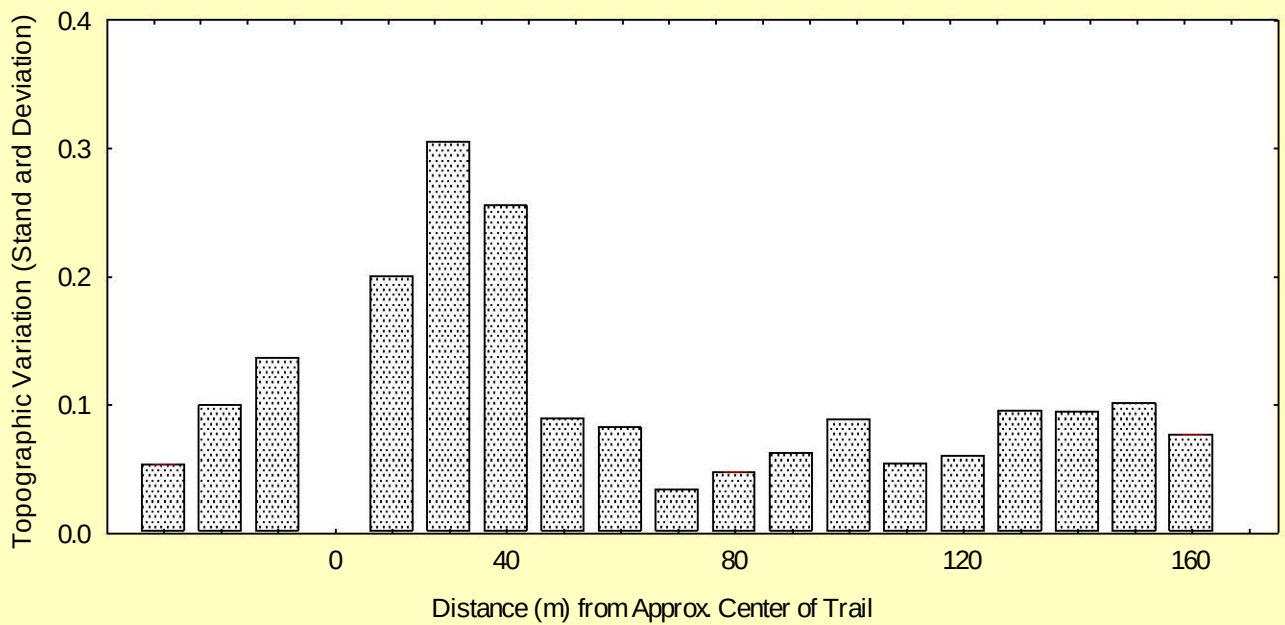




Concho Billy Trail, Transect 1. May 2001



Topographic Variation in Areas Adjacent to Concho Billy Trail. May 2001. Transect 1



Aquatic Macrofauna Sampling. No sampling for aquatic macrofauna was undertaken. Dip net sampling for aquatic macrofauna during the wet season will be considered for these sites.

Fish and Wildlife Observations. No fish and wildlife observations were made; these observations will occur during subsequent site visits.

Hydrology. Hydrologic data will be made available in a subsequent report.