# Florida National Scenic Trail Visitor Assessment



A View from Florida National Scenic Trail by Latus Tract

2011

# 2011

Presented to: National Forests in Florida, U.S.D.A. Forest Service Florida Trail Association

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# **Executive Summary**

The University of Florida's School of Forest Resources and Conservation (SFRC) began a collaborative visitor assessment project for the Florida National Scenic Trail (FNST) with the U.S. Forest Service (USFS) and the Florida Trail Association (FTA) in June of 2003. The purpose of the study is twofold. First, researchers are striving to determine reliable use estimates of annual trail visits to 27 segments of the FNST. Second, researchers are also gathering information on who FNST visitors are in order to develop a continual understanding of why they visit the trail. Following baseline data collection from 2003-2010, the visitor counts and visitor information has continued to be gathered in order to evaluate trends in visitation numbers as well trends in visitor characteristics. This report discusses the results of sites re-studied from June 1, 2010 - May 31, 2011.

# **Study Methods**

#### Data Collection: Trail Estimations

Three methods are used to collect FNST visitation data at annual survey sites:

- 1. Personal Observations
- 2. Mechanical Counters
  - a. Infrared Eyes
  - b. Pressure Pads (2003-2006 only)
- 3. Supplemental Materials (2003-2004 only)

#### Data Collection: Visitor Characteristics

Visitor questionnaires are used to gather information on visitor characteristics at annual survey sites.

#### 2010-2011 Results

#### Estimation of Trail Visits

The FNST is primarily a footpath covering the length of Florida; however several segments of the FNST are multiple-use. Therefore, two annual estimates are reported. The first estimate is *pedestrian* visits only, which includes hikers, walkers, joggers, and runners. The second estimate includes those visitors who do not fall into the pedestrian category such as bikers, roller blade users, horseback riders, etc. and are categorized as *other users*. These two use categories are then summed together for both summer and fall/spring seasons to form an annual FNST visitation estimate. For the 2010-2011 study season, the FNST received an estimated 352,217 visits of which 51.9% were estimated to be pedestrian visits and 48.1% were estimated to be other visits.

#### Total estimation of annual visits: 352,217

- Total pedestrians: 182,882
- Total other users: 169,335
- Total estimated summer use (June 1- September 30) : 34,391
- Total estimated fall/spring use (October-May) : 317,826

#### Annual Use of the FNST

The FNST Visitor Assessment has collected data since 2003 on Florida National Scenic Trail visitation. Results have shown that the FNST receives between 225,000 and 350,000 visits per year (Figure 1). Survey methodology was modified over the course of the project to improve accuracy, so it is felt that numbers for the last three study periods most accurately reflect trail visitation.



# Visitor Questionnaires

In order to learn more about the characteristics of FNST visitors as it relates to their socio-demographic and trip characteristics as well their level of satisfaction with their visit, researchers conducted on-site exit interviews at four study sites from July 1, 2010 through May 31, 2011. These results are as follows:

#### Participant Trip Characteristics

40% of respondents were repeat visitors to the FNST19% of respondents spent (1) hour or less on the FNST75% of respondents traveled in pairs, typically with a family member or friends

#### Participant FNST Experience & Knowledge

21% of respondents stated they had a perfect experience along the FNST

44% of respondents reported a nearly perfect experience along the FNST

67% of visitors had no suggested improvements for the trail, stating they were happy the way it was 15% of respondents learned about the FNST due to their residential proximity to the trail

#### Visitor Demographics

71% of respondents were male
42% of respondents were 40 years of age or older
40% of respondents were married
72% of respondents had no children living at home
70% of respondents were college graduate or had a higher education level
73% of respondents were employed
95% of respondents were white
54% of respondents reported an annual household income (pre-tax) of \$50,000 or more

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# Introduction

The 1,400 mile Florida National Scenic Trail (FNST) traverses through both urban and rural areas creating a footpath that stretches almost the entire length of Florida. As a result, the FNST is no more than 120 miles from all Florida residents, with the exception of the Florida Keys. The Trails dynamic location attracts thousands of visitors annually, and provides various passive recreation opportunities beyond hiking such as nature study, photography, and bird watching.

A nationwide survey of state and federal trail managers indicated collecting trail use data is of high importance, and that the collection of this data would be crucial to future management success for trail planning and other related projects (Lynch, J. *et al*, 2002). Visitor monitoring is a key component to effectively managing recreation on a regional scale. This process, which is often limited by resources (i.e. money, staff, etc), centers around two main procedures: 1) obtaining the number of visitors to an area, and 2) administering visitor questionnaires (Cope *et al.*, 1999). The necessity for collecting visitor counts is slowly emerging within recreation and land use agencies. This data helps in justifying budget requests, and it can provide a direction for appropriate resource distribution (Loomis, 2000). The most common method for collecting visitor counts has been through the use of mechanical counters. However, records on visitor counts are also kept through visitor sign in sheets, registration cards, and personal observations. In addition to obtaining information on the number of visitors to an area, gathering specific information on visitor socio-demographics can help managers and planners create a balance between the conservation of the surrounding habitat and providing quality recreation experiences.

Baseline monitoring efforts along the Florida National Scenic Trail (FNST) were undertaken by the U.S. Forest Service with the help of the University of Florida, School of Forest Resources and Conservation from June 1, 2003-May 31, 2011, in order to gather baseline information on current trail visitation and current visitor characteristics. Beginning in June 2008, data collection re-started at previously monitored sites, allowing an initial investigation of visitor use trends along re-sampled sections of the Florida Trail. As these monitoring efforts continue over the next several years, management will be provided with scientifically collected information to assist in monitoring if and how FNST visitation is changing as well as if and how the characteristics of Trail visitors is changing. As a result, programmers, managers, and volunteers will be provided with information to assist them in creating and enhancing recreation opportunities along the FNST, as well as assisting the Forest Service in justifying the need to acquire appropriate funding for FNST management (Loomis, 2000).

# **Study Purpose and Objectives**

The purpose of the Florida National Scenic Trail Visitor Assessment study is to generate reliable use estimates of annual visits to the FNST. A visit is defined as an individual entering and exiting the FNST. Specifically, study objectives aim to:

- 1. generate reliable use estimates of each survey site, which can be inferred to all FNST survey sections of similar categorized use which then can be combined to create a trail-wide visitation estimate, and
- 2. describe pedestrians in terms of their socio-demographic and trip characteristics, as well their level of satisfaction.

This report presents the visitor estimates for June 1, 2010 through May 31, 2011 at eight identified survey sites through which the Florida National Scenic Trail traverses. In addition, visitor characteristic information was collected through the completion of on-site questionnaires at four study sites. The results from these on-site questionnaires are also reported.

# Methodology

# **Survey Sections**

The Florida National Scenic Trail is composed of 42 sections. Using these 42 sections as a foundation for survey efforts, UF researchers identified 27 survey sites within 42 sections that would likely serve as exit and/or entrance points for hikers. These areas tended to correspond closely to public lands with established trailheads, which attract more hikers and serve as efficient survey sites. Preliminary research then categorized these sites as receiving high, medium, or low use (Table 1). Third, survey sites were geographically divided into groups, and each group was scheduled to be sampled for one year during the five year visitor assessment (Appendix I). Fourth, each survey site was further divided into potential FNST access points (Table 2). Although survey or counter data might not be collected at every access point within a site, every access point is classified by use type. This classification allows data collected at similar access points to be inferred to access points without data thereby making the annual visitation estimate more reflective of actual use (Appendix II).

#### Table 1. Site Use Classification

Site Use Type	Annual Number of Visits
High	1000 or more
Medium	366-999
Low	0-365

#### **Table 2. Access Point Classification**

Access	Point	Monthly	Number	of
Туре		Visits		
А		500 or more	e	
В		100-499		
С		50-99		
D		15-49		
E		15 or less		

# **Counting Visitors on the FNST**

# When

Study years are divided into two seasons:

- 1. Summer season, June 1<sup>st</sup> to September 31<sup>st</sup>
- 2. Fall/Spring Season, October 1<sup>st</sup> to May 31<sup>st</sup>

Beginning the study year during the summer, allows researchers ample time to contact recreation and land managers at new study sites, install trail counters and work out any kinks that may arise with equipment or the sampling framework over the summer months without sacrificing the loss of visitor use data. In addition the advantages of starting in the summer, the use of two survey seasons allows researchers to account for seasonal differences in Trail visitation.

#### Where

For 2010-2011 study season, researchers collected visitor use data from eight study sites (Figure 2):

- 1. Apalachicola National Forest
- 2. Aucilla Wildlife Management Area

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- 3. Big Cypress National Preserve
- 4. Cross Florida Greenway
- 5. Ocala National Forest
- 6. Osceola National Forest
- 7. Twin Rivers State Forest
- 8. Withlacoochee State Forest

Information on individual sites where visitor surveys were gathered can be viewed in Appendix IX. These eight study sites contained a total of 18 access points (Appendix III) that where monitored throughout the study year.

#### How

To obtain reliable use estimates of visitors on the FNST during the 2010-2011 study season, researchers combined two different methods: (1) personal observations, and (2) mechanical counters with supplemental materials.

The following sections describe each technique.

#### Personal Observations

Personal observations are performed at sites where the FNST allows multiple use. This allows researcher to differentiate between foot use (the predominate focus of the FNST) and other uses. A stratified random sampling approach was used to assign personal observation times in conjunction with survey periods. The sampling framework consists of two strata:

1. Day type

- a. Weekdays (Monday Thursday)
- b. Weekends (Friday Sunday)
- 2. Time of day
  - a. Morning
  - b. Afternoon

For the fall/spring season, every survey day contained four possible survey periods: (2) 3-hour survey shifts in the morning and (2) 3-hour shifts in the afternoon. There are 244 days in the fall/spring season, 139 weekdays and 105 weekend days.

During these personal observation times, surveyors kept a tally of individuals entering and exiting the FNST, as well as group size, the number of males and females, activity, and direction of travel (Appendix IV). These observation logs were used to generate an estimate of trail use at sites where multiple use occurred using the methods outlined within the following section.

For the 2010-2011 study year, Baseline & 64<sup>th</sup> Street trailhead at the Cross Florida Greenway was the only site in which user levels were estimated using previous personal observation methods.



Figure 2. Florida National Scenic Trail 2010-2011 Study Sites

#### Mechanical Pedestrian Counters

UF researchers used two types of infrared counters to generate visitor use estimates. While the installation of the two pieces of equipment differs, the data collection methods are the similar. A total of 17 counters where installed for the 2010-2011 survey season (Appendix V). Each of these counters is discussed below.

#### Active Infrared Eyes

The Diamond Traffics TCC-4420 infrared eye trail counter was originally designed by the U.S. Forest Service equipment center to aid in trail monitoring in remote areas. The counter is cased within water-proof aluminum, and operates on 4-D batteries that usually last 12 months. The counter is installed on a tree or wooden post and is aligned with a reflector 20-75 feet across the trail creating an invisible beam. When the beam is broken by a hiker, wildlife, or other user, it is recorded with no differentiation between user types. The counter has an ability to provide researchers with hourly counts for up to 420 days equating to approximately 25,000 counts.

The TrailMaster 1550 active infrared eye was also installed at several research sites over the course of the study year. This counter gathers data in the same fashion as the Diamond Traffics eye; however it records data slightly different from diamond. The counter is cased with water proof hard plastic, and operates on 4-C batteries that usually last 5 months. The counter is installed on a tree or wooden post and is aligned with a transmitter 20 to 145 feet across. Unlike the diamond traffics counter that indicates the exact percentage of alignment between the eye and the reflector, this counter only indicates to the field technician if the counter is aligned or not, and does not indicate the strength of the alignment. However, the TrailMaster does allow the field technician to adjust the sensitivity of a counter, unlike the Diamond Traffics Eyes. Although the sensitivity of the TrailMaster can be adjusted, the TrailMaster still cannot differentiate between user types. Information gathered from the counter allows researchers to evaluate trail use visits in one minute intervals, and the counter can store a maximum of 4,000 counts.

Both types of trail counters were calibrated on a monthly basis. Calibration of counters was essential in obtaining and maintaining counters accuracy. To calibrate each type of counter, researchers walked on or across the counter ten times and compared this number to the number of registered counts on the counter. The number of actual counts was then divided by the number of registered counts to develop a monthly correction factor (Appendix VI). At the end of the survey season these monthly correction factors were averaged together, omitting outliers, to develop one correction factor for an entire season. This correction factor was then applied to each month of data for that survey site to compensate for a counter over or under counting.

#### Supplemental Materials

For some areas, additional information regarding visitor numbers is available. This type of information ranges from formal registration cards to informal visitor logs kept in a mailbox on a nearby kiosk. The information found in these materials helps supplement the counters and observational counts. Registration cards can be used to obtain supplemental counts of visitors to the FNST. Visitor compliance is often an issue when depending on registration cards for visitor counts. There is currently no standardized system for registration cards on the FNST, so the reliability of this data is site dependent.

For the 2003-2004 study season, researchers only used registration cards from Eglin Air Force Base for supplemental data. Registration is mandatory at this site, and there is consistency in the card's dispersal and collection. Numbers obtained from this site was also used in proceeding study years to help calculates estimates for similar use areas. There were no additional survey sites in 2010-2011 that contained supplemental materials. However, trail registers left at kiosks were often consulted in order to compare to known counts to visitor recorded counts as an anecdotal means of justifying counter data. This most useful when counts were counts could be perceived as unusually high.

# **Defining Visitor Characteristics**

In order to meet the studies second objective, to describe visitors in terms of their socio-demographic and trip characteristics, researchers conducted on-site exit interviews during personal observation periods conducted from July 1, 2010 through May 31, 2011.

# Visitor Questionnaires

In order to aid researchers in gathering the most information available on current FNST visitors in the most efficient way possible, on-site interviews were conducted at previously established high-use study sites only. A total of 139 visitors were approached to complete the survey of which 20 declined and 16 were incomplete resulting in 103 completed surveys for an 86% response rate.

The survey was given to one consenting participant 18 years of age or older within every group entering or exiting the FNST. For groups that were larger than seven people, one person for every seventh person in the group was asked to complete a survey. The questionnaire took approximately 10-15 minutes of the participant's time to complete, and contained 32 questions pertaining to frequency of trail use, primary activities, group size, trip length, trip satisfaction, trip motivation, pro-environmental behavior, and socio demographic information.

# Data Analysis

#### Personal Observations

The observation logs completed by researchers during sampling blocks were used to develop seasonal estimates of visitors to the FNST for areas where mechanical counters could not be installed. For each access point within every survey site, the following counts were recorded:

- 1. TFC = Total Foot Count. Total number of visitors that are considered foot traffic (hikers, walkers, backpackers, runners) who were observed entering or exiting the FNST.
- 2. TOC = Total Other Count. Total number of bikers, horseback riders, roller-bladers, who were observed entering or exiting the FNST.
- 3. TVC = Total Visitor Count. Total number of visitors, including all activities, who were observed entering or exiting the FNST.

Average seasonal counts of TFC, TOC, and TVC were calculated for each survey site using a four-step process.

#### Step 1: Calculate average sampling period

For each variable (i.e. TFC, TOC, and TVC), researchers calculated the **average sampling period count** (am and pm) for each day type (weekend or weekday) for each access point of each survey site.

$$X_{ijkl} = 1/N_{ijk} \sum_{l=1}^{Nijk} X_{ijkl}$$

*Where:* i = access point

j =survey site  $(1, \dots, 8)$ 

k = weekday (1) and weekend (2)

m = number of counts for sampling periodon day type k at access point i of site jNijk1 = number of times counted during shiftl on day type k at access point i of siteXijklm = the count on mth repetition forsampling period l on day type k ataccess point i of site jXijkl= average count during sampling periodl on day type k at access point i of site j

# l = the sampling periods for each day (am or pm)

#### Step 2: Calculate average daily count

Second, researchers calculated the **average daily count** for each access point of each site by summing the two sampling periods (calculated above) for both weekend days and weekdays.

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$$X_{ijk} \!= \sum_{k\!\!=\!1}^3 \ X_{ijkl}$$

Where i = access point j = survey site (1,...,8) k = weekday (1) and weekend (2) l = the sampling periods for each day (am or pm) $X_{ijk} = \text{average daily count on day type } k \text{ at access point } i \text{ of site } j$ 

#### Step 3: Summation of averages

Next, the average daily counts of all access points within a site were summed to calculate the average daily count for a site for both weekdays and weekends.

$$X_{jk} = \sum_{k=1}^{3} X_{ijk}$$

Where: *i*=access point *j*=survey site (1,...,8) *k*=weekday (1) and weekend (2)  $X_{jk}$ =average daily count on day type *k* at site

#### Step 4: calculate average seasonal count

Researchers calculated the **average seasonal count** for each site, for variables TFC, TOC, TVC. Researchers multiplied the average daily count for weekends by the number of weekend days in that season. Then, they multiplied the average daily count for weekdays by the number of weekday days in that season. Researchers then added the two numbers to find the average seasonal count.

Seasonal Average for each site = 
$$M_1(\sum_{i=1}^8 X_{i1}) + M_2(\sum_{i=1}^8 X_{i2})$$

Where:

 $M_1$  = number of weekend days in the season  $M_2$  = number of weekday days in the season  $X_{i1}$  = average daily count for site *i* for weekend days.  $X_{i1}$  = average daily count for site *i* for weekdays i = site (1,..., 8)

#### Mechanical Pedestrian Counters

Data collected from mechanical counters provide continuous counts for selected access points within each survey site. Analyzing counter data is the same regardless of the type of counter being used. A seven-step protocol was developed to transform raw counter data to final seasonal counts for each installed counter.

#### <u>Step 1: Adjust Raw Data</u> Delete data:

1. One hour after sunset to one hour before sunrise, unless there were scheduled night hikes that researchers were made aware of. This information was obtained at the study sites website, from the study sites land/recreation manager, from the FTA website, or from the FTA publication *Footprints*.

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- 2. Unusually high counts, with no explanation from FTA or other group, and unusual patterns of high numbers. Unusually high counts are site specific. Counts that may be considered "high counts" were not deleted until reasonable knowledge about the trail section had been obtained.
- 3. Any data that included researchers calibrating or working on trail.

#### Step 2: Adjust Data by Month & Compensating for Missing Data

Counter data was then analyzed by the month, so each month within a season had a total number of counts. This number was recorded in an Excel spreadsheet. If data were data were missing within the month, data were data were estimated by:

[(Total # of hits for x days before missing data + Total # of hits for x days after missing data) / 2

If days were missing between two months (not the whole month) then researchers followed the procedure above. After dividing by 2, the answer was then divided by the number of missing days. This gave the number of hits per day. This number was multiplied by the number of missing days within the month. If data was missing for an entire month (i.e., battery died, counter was stolen) an access point average was applied to that particular month for that particular site.

#### Step 3: Corrected Monthly Count

In order to better estimate the actual number of users, each access point with a counter had an average correction factor that was multiplied by the access point's monthly total. This was done at the end of a season when all the correction factors were averaged together. Every counter is calibrated regularly, and correction factors were produced by dividing the actual number of counts by the registered number of counts. The average correction factor accounts for every time the access point was calibrated since installation. If a counter had to be replaced, correction factors were averaged as normal unless there are known differences between the counters or conditions. Outlying correction factors were omitted if the cause of the unusually high/low factor was known.

#### Step 4: Final Monthly Data

To account for the same entry and exit by pedestrians at a site, an access point's corrected monthly count was divided by two.

#### Step 5: Apply Access Point Averages

Once final monthly counts were formed, access points within the same classification were grouped together from all study years regardless of location. Next, an average for that access point classification was formulated. This average was then applied to current access points where data was not collected.

#### Step 6: Final Seasonal Data

All final monthly data was summed up within the season.

#### Step 7: Trail-Wide Estimate

Final annual data was then added to previous annual data, omitting sites being re-sampled for the current year report, to formulate a trail-wide visitation estimate.

#### Visitor Questionnaires

Descriptive statics such as frequencies, means, and standard deviations were relied upon to answer the studies second objective, to describe visitors in terms of their sociodemographic characteristics, motivations, and desired settings. In some cases a crosstabs analysis was consulted to further provide explanation of the descriptive statistics.

For open-ended comments found in the on-site survey, two researchers independently reviewed the comments and placed them into categories thought to provide a descriptive overview of the comment. These categories and UNIVERSITY OF FLORIDA SCHOOL OF FOREST RESOURCES & CONSERVATION 10

related comments were then compared. Categories similar in nature were left as defined by the independent review. In the event that a comment was assigned to a conflicting category, a third reviewer was asked to review the comments and the group came to a consensus about the comments appropriate placement. All analysis for visitor surveys was conducted with SPSS v18.0.

# Results

#### **Visitor Use Estimates**

This section describes the results from mechanical counters and on site observations during the 2010-2011 study year. Seasonal trail visitor estimations were derived by totaling:

- Data from previous years' research (June 2003- May 2010), and
- Results from this year's research (June 2010 May 2011)

The 2010-2011 study year has one of the highest estimated visits to the Florida Trail. There was only 1 less estimated visit to the FNST in 2010-2011 than the previous study year. Since all study sites have now been researched at least once, it is reasonable to say that this year's estimate is an accurate reflection of the approximate number of Florida Trail visitors.

Seven Trail Master 1550 infrared counters and ten Diamond Traffics infrared counters were used in 2010-2011 research season to collect visitation data. All of these counters performed reasonably well throughout the year, with some mechanical issues due to aging equipment or other causes. Among the 17 counters, 7 counters (Big Cypress South, Juniper, Rodman E, Santos, SR19, Turkey Run and Withlacoochee Fire Tower) experienced mechanical failure or forest prescribed burn damage during the study year, resulting in one-month or more of data loss at these locations. In all cases where the counter was damaged, or experienced mechanical failures, each unit was replaced immediately when the incidents were noticed during the monthly site visit to avoid further data loss. More detailed information on the missing data for each of these sites can be found in Appendix VIII.

#### Estimate of Summer Visits

The estimated use for all eight sites studied during the summer of 2010 was 11,524 (Table 3). The study sites consisted with six high-use and two medium-use sites. The highest use occurred at Cross Florida Greenway with 6,097 visits of which 5,473 were estimated to be pedestrian traffic and 624 visits were estimated to be other users. Withlacoochee State Forest had the second highest estimated with 3,404 visits (885 pedestrian traffic; 2,519 other traffic). The lowest visitation occurred at Aucilla Wildlife Management Area with 102 total visits for the summer. Osceola National Forest was the next lowest with 110 summer visits.

Total estimated summer use for the entire Florida National Scenic Trail during the summer of 2010 was 34,391 (Table 4) that was 623 fewer visits than the 2009 summer estimate. The highest use site for all 28 segments was Little Big Econ State Forest with a total of 8,764 estimated visits. The lowest use site was estimated to be Rice Creek with 19 visits followed by Eglin AFB with 54 visits. Despite the consecutive overall declining visitation following summer 2009, visits to FNST at all national forests or preserves except Osceola experienced 0.3% to 13% increases. Notably Ocala and Apalachicola National Forests had respectively 13% and 5% increase of visitation from the summer 2009, while St. Marks NWR and Big Cypress National Preserve had a nominal increase of 0.3% and 1% respectively, contrary to 2% decrease of visitation in Osceola National Forest. In addition, visits to Cross Florida Greenway also increased 3% from 5,934 hikers in the summer of 2009 to 6,097 hikers in the summer of 2010. However, the largest visitation decreases that contributed to the overall visitation declining occurred at Withlacoochee and Little Big Econ State Forests with respectively 421 and 394 fewer hikers than in the summer 2009, which were 11% and 4% drops respectively.

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Use Type	Site	Foot Traffic	Other Traffic	Total Use
	Cross Florida Greenway	5,473	624	6,097
	Withlacoochee State Forest & Rail Trail	885	2,519	3,404
II:ah	Ocala National Forest	864		864
nigii	Big Cypress National Preserve	491		491
	Twin Rivers State Forest	301		301
	Apalachicola National Forest	155		155
Modium	Osceola National Forest	110		110
Wieurum	Aucilla WMA	102		102
Subtotals		8,381	3,143	11,524
Total			11,524	

# Table 3. Estimate of Summer Visitation at 2010-2011 Study Sites

Use Type	Location	Foot Traffic	Other Traffic	Total Use
	Lake Okeechobee	1,329	1,229	2,558
Highest	Total highest use estimate	1,329	1,229	2,558
	Little Big Econ St. Forest	4,500	4,264	8,764
	Cross Florida Greenway*	5,473	624	6,097
	Gulf Islands National Seashore	2,430	3,380	5,810
	Withlacoochee State Forest & Rail Trail*	885	2,519	3,404
	St. Marks NWR & Rail Trail	246	1,229	1,475
	Ocala National Forest*	864		864
	Blackwater River State Forest	728		728
	Suwannee	519		519
Uiah	Highlands (S65B to US 98)	502		502
nigii	Three Lakes WMA	494		494
	Big Cypress National Preserve*	491		491
	Green Swamp WMD	366		366
	Twin Rivers State Forest*	301		301
	Econfina WMA	283		283
	Seminole State Forest	252		252
	Goldhead Branch State Park	234		234
	Apalachicola National Forest*	155		155
	Total high use estimate	18,723	12,016	30,739
	Bull Creek WMA	199		199
	Kissimmee River/Avon AFB	186		186
	Tosohatchee State Preserve	177		177
	Osceola National Forest*	110		110
Medium	Aucilla WMA*	102		102
	Etoniah State Forest	78		78
	Pine Log State Forest	72		72
	Eglin AFB	54		54
	Total medium use estimate	<b>978</b>	0	<b>978</b>
	Mills Creek	97	0	97
Low	Rice Creek	19	0	19
	Total low use estimate	116	0	116
Subtotals		21,146	13,245	34,391
Total			34,391	

#### Table 4. Estimates of Summer Trail-wide Visitation 2010-2011

\*2010-2011 study site

# Estimation of Fall/Spring Visits

The estimated use for all eight sites studied during the fall/spring of 2010-2011 was 53,220 (Table 5). The Marjorie Harris Carr Cross Florida Greenway received the highest number of visits (29,351) of which 66.5% (19,510) was estimated to be pedestrian traffic and 33.4% (9,841) was estimated to be other types of traffic. Withlacoochee State Forest & Rail Trail had the second highest estimated number of visits during the fall/spring season with a total of 13,771 visits of which 4,774 were estimated to be foot traffic and 8,997 were estimated to be other types of traffic. The lowest use area during the fall/spring was Aucilla WMA with 434 visits. Osceola National Forest (539 visits) was the next lowest use area studied.

Use Type	Site	Foot Traffic	Other Traffic	<b>Total Use</b>
	Cross Florida Greenway	19,510	9,841	29,351
	Withlacoochee State Forest & Rail Trail	4,774	8,997	13,771
Uich	Ocala National Forest	4,780		4,780
High	Big Cypress National Preserve	2,362		2,362
	Apalachicola National Forest	1,131		1,131
	Twin Rivers State Forest	852		852
Modium	Osceola National Forest	539		539
wieulum	Aucilla WMA	434		434
Subtotals		34,382	18,838	53,220
Total			53,220	

#### Table 5. Estimate of Fall/Spring Visitation at 2010-2011 Study Sites

Total estimated 2010-2011fall/spring visitation for the entire Florida National Scenic Trail was 317,826, which was 622 visits increase from last year's estimate of 317,204 (Table 6). Except visitation decreases at Blackwater River State Forest and Tosohatchee State Preserve with respectively 81 (4% drop) and 78 (18% drop) fewer hikers than in the fall/spring of 2009-2010, use levels at all other sites experienced same or modest gain from the fall/spring of 2009-2010. The largest increases of visitation to FNST were occurred at Withlacoochee State Forest, Twin Rivers State Forest, and Cross Florida Greenway with respectively 193 (1.4%), 100 (13%), and 90 (0.3%) more hikers than in the fall/spring of 2009-2010, followed by the increases at Big Cypress National Preserve (65 or 3%), Apalachicola National Forest (58 or 5%), and Aucilla WMA (58 or 15%). In addition, increases of visits at St. Marks NWR (56 or 0.4%), Suwannee WMD (49 or 2%), Osceola National Forest (43 or 9%) and other sites all contributed to the overall increase of visitation to the FNST in the fall/spring of 2010-2010.

Use Type	Location	Foot Traffic	Other Traffic	Total Use
II: ab aat	Lake Okeechobee	89,930	111,482	201,412
nignest	Total Fall Highest Use	89,930	111,482	201,412
	Cross Florida Greenway*	19,510	9,841	29,351
	Gulf Islands National Seashore	8,220	8,643	16,863
	Withlacoochee State Forest & Rail Trail*	4,774	8,997	13,771
	St. Marks NWR & Rail Trail	2,831	10,562	13,393
	Little Big Econ State Forest	7,241	6,116	13,357
	Goldhead Branch State Park	5,272	0	5,272
	Ocala National Forest*	4,780	0	4,780
	Suwannee	2,704	0	2,704
II:ah	Big Cypress National Preserve*	2,362	0	2,362
nigii	Blackwater River State Forest	1,893	0	1,893
	Seminole State Forest	1,342	449	1,791
	Highlands (S65B to US 98)	1,242	0	1,242
	Three Lakes WMA	1,241	0	1,241
	Apalachicola National Forest*	1,131	0	1,131
	Econfina WMA	1,060	0	1,060
	Twin Rivers State Forest*	852	0	852
	Green Swamp WMD	810	0	810
	Total high use site estimate	67,265	44,608	111,873
	Bull Creek WMA	800	0	800
	Pine Log State Forest	662	0	662
	Eglin AFB	610	0	610
	Osceola National Forest*	539	0	539
Medium	Aucilla WMA*	434	0	434
	Kissimmee River/Avon AFB	367	0	367
	Tosohatchee State Preserve	350	0	350
	Etoniah State Forest	301	0	301
	Total medium use site estimate	4,063	0	4,063
	Rice Creek	280	0	280
Low	Mills Creek	198	0	198
	Total low use site estimate	478	0	478
Subtotals		161,736	156,090	317,826
Total			317,826	

#### Table 6. Estimate of Fall/Spring Trail-wide Visitation 2010-2011

\*2010-2011 study sites

# Estimation of Annual Visits

Trail-wide estimates for the summer season and the fall/spring season were added together to form an annual estimate of FNST visits. Overall, it was estimated that the FNST hosted 352,217 total visits in 2010-2011, only 1 visit fewer than in 2009-2010 (Table 7). 51.9 % of these visits were foot traffic and 48.1% were other traffic. However among those changes, visitations to FNST at all high use sites except Little Big Econ State Forest and Blackwater State Forest experienced moderate increase from 2009-2010, while visitations at all medium use sites except Osceola National Forest experienced decrease from 2009-2010.

Use Type	Location	Foot Traffic	Other Traffic	Total Use
II: ab oat	Lake Okeechobee	91,259	112,711	203,970
Hignest	Total Fall Highest Use	91,259	112,711	203,970
	Cross Florida Greenway*	24,983	10,465	35,448
	Gulf Islands National Seashore	10,650	12,023	22,673
	Little Big Econ St. Forest	11,741	10,380	22,121
	Withlacoochee State Forest & Rail Trail*	5,659	11,516	17,175
	St. Marks NWR & Rail Trail	3,077	11,791	14,868
	Ocala National Forest*	5,644	0	5,644
	Goldhead Branch State Park	5,506	0	5,506
	Suwannee	3,223	0	3,223
TT: -1-	Big Cypress National Preserve*	2,853	0	2,853
High	Blackwater River State Forest	2,621	0	2,621
	Seminole State Forest	1,594	449	2,043
	Highlands (S65B to US 98)	1,744	0	1,744
	Three Lakes WMA	1,735	0	1,735
	Econfina WMA	1,343	0	1,343
	Apalachicola National Forest*	1,286	0	1,286
	Green Swamp WMD	1,176	0	1,176
	Twin Rivers State Forest*	1,153	0	1,153
	Total high use site estimate	85,988	56,624	142,612
	Bull Creek WMA	999	0	999
	Pine Log State Forest	734	0	734
	Eglin AFB	664	0	664
	Osceola National Forest*	649	0	649
Medium	Kissimmee River/Avon AFB	553	0	553
	Aucilla WMA*	536	0	536
	Tosohatchee State Preserve	527	0	527
	Etoniah State Forest	379	0	379
	Total medium use site estimate	5,041	0	5,041
	Rice Creek	299	0	299
Low	Mills Creek	295	0	295
	Total low use site estimate	594	0	594
Subtotals		182,882	169,335	352,217
Total			352,21	7

Table 7. Estimated FNST Trail-wid	e Visitation for 2010-2011 Study Year
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\*2010-2011 study sites

# Comparison of Site Visitation

From the data collected over the past eight years of research (Figure 3), the site with the highest visitation along the Florida Trail is Lake Okeechobee with an estimated 203,970 annual visits (45% were hikers). The next highest use can be found at Marjorie Harris Carr Cross Florida Greenway with an estimated 35,448 annual visits (70% were hikers). The lowest use sites are Mills Creek WMA with 295 annual visits (100% hikers) and Rice Creek WMA with 299 annual visits (100% hikers).



**Figure 3. Comparison of Estimated Visitor Use on the Florida National Scenic Trail 2010-2011 in All Research Sites** Note: Lake Okeechobee is not included in the figure because of its very high use (203,970 annually)

# **On-Site Survey**

Entry and exit interviews were conducted at four 2010-2011 study sites: Ocala National Forest, Osceola National Forest, Green Swamp Water Management District, and Aucilla Wildlife Management Area. A total of 139 people were approached to complete the interview of which 20 declined and 16 were incomplete equaling a total of 103 completed surveys for a 86% response rate. The largest percentage of surveys were completed at Ocala National Forest (59.7%), followed by Aucilla Wildlife Management Area (16.8%), and Osceola National Forest region (12.6%). The least amount of surveys was completed at Green Swamp Water Management District (10.9%) (Figure 4).



### Visitor Demographics

Visitors were more likely to be male than female (72.0%). They were mostly younger than 40 years old (55.7%) and single (52.6%). Most had no children at home (71.9%). Most respondents were white (95.6%) and the single largest income brackets were \$100,000 or more (18.2%) and those making less than \$20,000 (20.9%). Most respondents were employed full-time (68.4%). Students comprised 12.9% of the visitors (Table 8).

To aid in research on the relationship between outdoor recreation and environmental attitudes, further sociodemographic information was collected during the 2010-2011 study season, relating to voting history, political party affiliation, religious affiliation, and membership in an interest group related to the management of the Florida National Scenic Trail or its surroundings lands. An overwhelming majority of hikers were registered voters (91.3%), with a plurality indicating that they affiliate with the Democratic Party (34.6%), and a minority with the Republican Party (25.0%). Libertarians comprised 1.7% of the survey sample, whereas independents comprised 33.7%. The largest religious groups represented were Protestants (28.0%) and Catholics (20.6%), whereas Agnostics and Atheists comprised 25.2%. A small minority of hikers identified themselves as members of an interest group related to the management of the trail or surrounding area (17.7%), with 66.7% of those identifying with the Florida Trail Association (Table 9).

Statement	n	Response	Valid Percent (%)
Conden	110	Male	72.0
Gender	118	Female	28.0
		60 years or older	7.1
		50-59 years old	21.2
Age	113	40-49 years old	11.5
2		30 - 39 years old	21.2
		18 - 29 years old	34.5
		Married	41.4
	11.0	Single	52.6
Marital Status	116	Divorced	6.0
		Widowed	0.0
		0	71.9
		1	7.0
Children in household	114	2	14.9
		3	4.4
		4 or more	2.6
		Some high school or less	0.9
		High school graduate or GED	51
		Some college	24.8
Highest level of education	117	College graduate	
		Some graduate school	51
		Graduate degree or beyond	18.8
		Employed Full-time	68.4
		Employed Part time	6.0
		Unomployed	0.0
Employment	117	Full time homemaker	9.4
Employment	117	Patirad	0.0
		Full time student	12.0
		Puri-time student	12.0
		White	0.5
		Wille Hispanio/Latino	95.7
		American Indian/Alaska Nativa	2.0
Deep or otheric group	116	American mutan/Alaska Native	0.0
Race of enfine group	110	Native Heuseijen/Decific Islander	2.0
		A sign A morison	0.0
		Asian American Other	0.0
			0.0
		\$9,999 of less	10.0
		\$10,000-\$19,999	10.9
		\$20,000-\$29,999	5.5
		\$30,000-\$39,999 \$40,000 \$40,000	12.7
II	110	\$40,000-\$49,999 \$50,000 \$50,000	7.3
Housenoia income	110	\$30,000-\$39,999 \$60,000 \$60,000	8.2
		φου, υυυ-φο9, 999           φσυ, ουο, φσο, οοο	5.5
		\$/U,UUU-\$/9,999	9.1
		400,000 - 400,000	8.2
		\$90,000-\$99,999 \$100,000	4.5
		\$100,000 or more	18.2

# Table 8. Socio-Demographic Information

Table 9. Affiliations			
Statement	n	Response	Valid Percent (%)
Decistered Voter	115	Yes	91.3
Registered voter	115	No	7.0
		Democrat	34.6
Party Affiliation	104	Republican	25.0
	104	Independent	33.7
		Other	6.7
		Catholicism	20.6
		Protestantism	28.0
		Islam	0.0
Deligious Affiliation	107	Hinduism	0.0
Religious Affiliation	107	Buddhism	4.7
		Judaism	0.9
		Agnostic/Atheist	25.2
		Other	20.6
Mambar of Interast Croup	112	Yes	17.7
Member of Interest Group	113	No	82.3

More than half of those surveyed were first time visitors to the Trail (60.5%) (Table 10). Of these repeat visitors, the most commonly reported number of times to that particular trailhead was between 1-6 in the last year (22.7%). Nearly 10% of participants at the Ocala National Forest and Aucilla Wildlife Management Area, respectively, were most likely to visit 13 times or more in the past year, while more than 60% of respondents at all of the sites never visited in the past year. Ocala National Forest, Aucilla Wildlife Management Area, and Green Swamp Water Management District all had about a quarter of respondents that visited 1-6 times in the past year, respectively (Table 11). Osceola National Forest users rarely used the trail more than once per year, with 86.7% being first time users this year. More than half the groups surveyed (62.2%) spent half a day or less at a time on the Trail and nearly half of the respondents walked less than five miles (46.2%). A significant portion of hikers spent more than one day on the Trail (37.0%) and about a quarter hiked over ten miles per outing (26.1%) (Table 10).

Over a quarter of hikers (27.7%) surveyed learned about the trail through a website, while almost a quarter of respondents (22.7%) learned about the trail from a friend or a family member. Brochures and newspaper articles were reported to be the least likely sources of obtaining knowledge about the trail (0.8%) (Table 10).

Statement	n	Label	Valid Percent (%)
First time on trail	119	Yes	60.5
	117	No	39.5
		None	66.4
Number of visits in past year	119	1 - 6	22.7
Transer of Visits in past year	117	7 - 12	2.5
		13 or more	8.4
		1 hour or less	19.3
		A few hours	24.4
Time spent on trail	119	Half a day	18.5
		Whole day	0.8
		More than a day	37.0
		Less than a mile	8.4
		1 - 3 miles	21.0
Number of miles walked on trail	119	4-5 miles	16.8
		6 - 10 miles	27.7
		10 miles or more	26.1
		Website	27.7
		Friends or Family	22.7
		Other	21.8
		I live nearby and saw the trail	15.1
		Guidebook	7.6
Lean about trail	119	Road Signs	5.9
		Don't Remember	5.9
		Magazine	3.4
		Brochure	0.8
		Newspaper article	0.0

# Table 10. Trip Characteristics & Knowledge

#### Table 11. Comparison of Past Visits by Site

	Past Visits within Current Year (Valid Percent %)							
Site	None	1 – 6 times	7 – 12 times	13 or more				
Ocala National Forest	62.0	25.4	2.8	9.9				
Aucilla Wildlife Management Area	65.0	25.0	0	10.0				
Osceola National Forest	86.7	6.7	6.7	0				
Green Swamp Water Management District	69.2	23.1	0	7.7				

Respondents were asked to rank their top three reasons for visiting the trail that day. The most common primary activity for people on the FNST was hiking or walking (64.7%). Viewing scenery (34.5%, 16.4%) was cited as the most popular secondary or tertiary activity (Table 12). Backpacking, camping, and photography were also cited as popular activities, whether primary, secondary, or tertiary, on the Trail. Jogging and running, hunting, and biking were not practiced on surveyed portions of the FNST (0%).

Statement	n	Activity	Valid Percent %
		Hiking/Walking	64.7
Primary Activity Secondary Activity		Backpacking	11.8
		View Scenery	7.6
		Camping	5.9
		Other	3.4
		Photography	2.5
	110	Fishing	1.7
Primary Activity	119	Nature Study	0.8
		Bird watching/wildlife viewing	0.8
		Viewing Cultural Resources	0.8
		Jogging/running	0
		Picknicking	0
		Hunting	0
		Biking	0
		View Scenery	34.5
		Hiking/Walking	18.1
		Camping	12.9
		Photography	11.2
	116	Backpacking	10.3
		Other	5.2
~		Bird watching/wildlife viewing	4.3
Secondary Activity		Fishing	1.7
		Nature Study	0.9
		Jogging/running	0
		Picknicking	0
		Hunting	0
		Viewing Cultural Resources	0
		Biking	0
		View Scenery	16.4
		Photography	15.5
		Camping	12.7
		Backpacking	10.0
		Nature Study	10.0
		Other	10.0
		Bird watching/wildlife viewing	8.2
Tertiary Activity	110	Viewing Cultural Resources	6.4
		Hiking/Walking	4.5
		Picknicking	4.5
		Fishing	1.8
		Jogging/running	0
		Hunting	Ő
		Biking	Ő

Table 12. Activities Participated

Most visitors (66.4%) on the FNST traveled alone or with one other person. Almost half of groups (49.2%) had at least one male, and nearly half of the groups included no females (45.8%). Other than people who traveled alone (27.1%), friend groups (31.4%) and family groups (30.5%) were the most common type encountered along the Trail (Table 13). The average group size was 2.84 visitors.

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Statement	Ν	Label	Valid Percent %
		1	26.1
		2	40.3
Group Size	119	3	9.2
		4	10.1
		5 or more	14.3
		0	5.1
		1	49.2
Number of Males	110	2	22.9
Number of Males	110	3	14.4
		4	4.2
		5 or more	4.2
		0	45.8
		1	38.1
Number of Females	110	2	6.8
Number of Pennales	110	3	4.2
		4	2.5
		5 or more	2.5
		Friends	31.4
		Family	30.5
		Alone	27.1
Group Type	118	Organized Group	5.1
		Other	3.4
		Friends and Family	2.5

Table 13. Group Characteristics

Respondents were asked to rate their trail experience on a scale of one to ten with ten being a perfect experience. The majority of hikers (76.4%) had a perfect or near perfect experience (a rating of 8, 9, or 10). When asked why their visit was not perfect, respondents mentioned "not well marked" (20.6%), a lack of desired facilities/maintenance (17.5%), and the flat terrain of Florida (12.7%) as common reasons (Table 14).

Next, all visitors were asked if there were any improvements they would like to see to the trail. Many suggested improved trail blazing and/or trail signage (42.3%) and nearly a quarter suggested improved trail maintenance (23.1%). Several hikers mentioned having trouble learning more about the trail and suggested improved maps and information handout (9.6%) and also requested better and more facilities, such as water fountains, concessions, and restrooms (9.6%). Some of the "other" suggestions were trail rerouting, hog-related mess, and suggestions for different trail management (Table 14).

#### Table 14. Trail Experience

Statement	N	I shal	Valid Percentage
Statement	N	Eaber	(%)
		10	26.9
		9-9.9	17.2
Europian as /Satisfaction	02	8-8.9	32.3
Experience/Saustaction	95	7-7.9	11.9
		6-6.9	3.3
		5.9 or less	8.6
		Not well marked/Blazes missing	20.6
		Lack of desired facilities or maintenance	17.5
	63	Flat terrain/Not challenging enough	12.7
		Lack of wildlife	6.3
Passons not a Tan		Weather	4.8
Reasons not a Ten		Burned areas	4.8
		Not much to see	3.2
		Bugs or mosquitoes around the trail	3.2
		Other (blisters, lack of water, crowded, not enough	27.0
		shade, etc.)	
		Improved trail blazing and/or trail signage Improved	42.3
		trail maintenance	23.1
		Improved or additional facilities desired	9.6
Suggested Improvements	52	Improved maps and information handout	9.6
Suggested improvements	52	Trail modifications desired	7.7
		Changes in trail management	7.7
		Comment on animal damage	5.8

# Motivations and Destination Attractors

Motivations are considered the needs or wants that visitors wish to fulfill during their recreation visit. Participants were presented with a list of 23 possible motivations for visiting the Trail that day and were asked to rate the importance of each motivation on a scale of one to five. This five point scale was then collapsed into a three point scale with one indicating 'not important' and three indicating 'important.' Enjoying scenery (mean = 2.99) was reported to be the most important motivation for visiting the Trail that day followed closely by experiencing nature (mean = 2.91). Other important factors for visitation were reported as being close to nature (mean = 2.89) and exploring the area (mean = 2.88). "To meet new people" was reported as the least important motivation for visiting the Trail that day (mean = 1.76) along with sharing skills and knowledge with others (mean = 1.97) (Table 15).

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Motivation	Ν	Not Important (%)	Neutral (%)	Most Important (%)	Mean <sup>1</sup>	$SD^2$
To enjoy the scenery	107	0	0.9	99.1	2.99	.0.97
To experience nature	107	3.7	1.9	94.4	2.91	0.401
To be close to nature	107	3.7	3.7	92.5	2.89	0.42
To explore the area	106	3.8	4.7	91.5	2.88	0.43
To enjoy the smells and sounds of nature	106	5.7	5.7	88.7	2.83	0.507
To get away from the usual demands of life	105	2.9	12.4	84.8	2.82	0.455
To get exercise	107	4.7	9.3	86	2.81	0.498
To relax physically	107	4.7	15	80.4	2.76	0.529
To feel healthier	107	9.3	8.4	82.2	2.73	0.623
To experience new and different things	106	5.7	17.9	76.4	2.71	0.568
To experience solitude	106	8.5	21.7	69.8	2.61	0.641
To learn more about nature	104	12.5	19.2	68.3	2.56	0.708
To be with people who enjoy the same things I do	105	15.2	23.8	61	2.46	0.747
To be away from people	106	16	24.5	59.4	2.43	0.756
To be on my own	102	23.5	19.6	56.9	2.33	0.836
To have thrills and excitement	105	17.1	32.4	50.5	2.33	0.755
To use my own equipment	103	23.3	23.3	53.4	2.3	0.826
To do something with my family	104	26.9	23.1	50	2.23	0.85
To test my skills and abilities	105	25.7	26.7	47.6	2.22	0.832
To be with members of my group	105	28.6	21.9	49.5	2.21	0.863
To learn more about natural history of the area	106	31.1	24.5	44.3	2.13	0.863
To share my skills and knowledge with others	104	35.6	31.7	32.7	1.97	0.83
To meet new people	106	46.2	31.1	22.6	1.76	0.799

#### **Table 15. Motivations**

 $^{1}$  1 = not important 2 = neutral 3 = important  $^{2}$  standard deviation

People are attracted to certain recreation areas based on certain features, attributes, or attractions (Klenosky, 2002). In order to gain a better understanding of why visitors choose the specific recreation destination in which they were contacted, they were presented with twelve possible attractors of a recreation area and were asked to rate how important each of attractors were in choosing their destination the day they were contacted. Importance was measured on a scale of one to five with five representing the most important and one representing the least important. This five point scale was reduced to a three point scale within the analysis in order to simplify the interpretation of results. Visitors to the FNST were attracted by experience wilderness and undisturbed nature (mean = 2.89), experience a good quality of environmental air, water, and soil (mean = 2.87), a chance to see wildlife/birds (mean = 2.85), see the natural water features (mean = 2.76). Few hikers were attracted to a recreation area based on the area's ability to provide good opportunities for hunting (mean = 1.30), seeing local crafts (mean = 1.47), or fishing (1.51) (Table 16).

Reasons for Visit	n	Not Important (%)	Neutral (%)	Important (%)	Mean <sup>1</sup>	Standard Deviation
Wilderness and undisturbed nature	103	2.90	2.90	94.2	2.91	0.373
Good environmental quality of air, water, and soil	106	4.70	13.2	82.1	2.77	0.522
Chance to see wildlife/birds	105	7.60	9.50	82.9	2.75	0.585
To see the natural water features	106	10.4	13.2	76.4	2.66	0.66
Good camping	107	23.4	7.50	60.0	2.50	1.058
Easy access to the area/being easy to get to	104	20.2	30.8	49.0	2.29	0.784
Available parking	106	33.0	28.3	38.7	2.06	0.849
Close to home	104	32.7	34.6	32.7	2.00	0.813
Interesting small towns	105	46.7	29.5	23.8	1.77	0.812
Historical, military, or archeological sites	105	50.5	27.6	21.9	1.71	0.805
Good fishing	104	70.2	16.3	13.5	1.43	0.721
Local crafts or handiwork	105	65.7	25.7	8.6	1.43	0.648
Good big game hunting	105	89.5	5.70	4.8	1.15	0.476
Good small game hunting	104	89.4	7.70	2.9	1.13	0.419

#### Table 16. Destination Attractors

<sup>1</sup> 1 = not important 2 = neutral 3 = important

#### New Environmental Paradigm

In the 2010-2011 visitor survey, new questions were included to study the environmental attitudes and values of FNST visitors. The questions in Table 17 were taken directly from the New Environmental Paradigm scale, an oft studied questionnaire of environmental values in use since 1978 (Dunlap 1978). Result show that trail visitors tend to have environmentally-focused attitudes. Specifically, participants most strongly agreed with the statement, "Despite our special abilities humans are still subject to the laws of nature" (mean = 2.88), as well as the fact that humans are severely abusing the environment (mean = 2.77) and that plants and animals have as much right as humans to exist (mean = 2.76), with less than 10% of respondents disagreeing with each of these statements.

Survey respondents generally disagree that humans were meant to rule over the rest of nature (mean = 1.46). They also do not believe that the "ecological crisis" facing humankind has been exaggerated (mean = 1.55) or that the balance of nature is strong enough to cope with the impacts of modern industrial nations (mean = 1.55). Responses were split on two particular statements, with hikers neither agreeing or disagreeing with the fact that "human ingenuity will insure that we do NOT make the earth unlivable" (mean = 2.07), and that "humans will eventually learn enough about how nature works to be able to control it" (mean = 1.96) (Table 17).

Statement	n	Disagree (%)	Neutral (%)	Agree (%)	Mean <sup>1</sup>	Standard Deviation
Despite our special abilities humans are still subject to the laws of nature	105	1.9	8.6	89.5	2.88	0.385
Humans are severely abusing the environment	101	6.9	8.9	84.2	2.77	0.564
Plants and animals have as much right as humans to exist	105	6.7	10.5	82.9	2.76	0.564
When humans interfere with nature it often produces disastrous consequences	100	4	23	73	2.69	0.545
The balance of nature is very delicate and easily upset	105	15.2	19	65.7	2.5	0.748
We are approaching the limit of the number of people the earth can support	107	15	23.4	61.7	2.47	0.744
The earth is like a spaceship with very limited room and resources	105	17.1	24.8	58.1	2.41	0.768
If things continue on their present course, we will soon experience a major ecological catastrophe	106	17.9	23.6	58.5	2.41	0.778
The earth has plenty of natural resources if we just learn how to develop them	102	37.3	18.6	44.1	2.07	0.904
Human ingenuity will insure that we do NOT make the earth unlivable	106	34.9	34	21.1	1.96	0.816
Humans will eventually learn enough about how nature works to be able to control it	106	51.9	30.2	17.9	1.66	0.767
Humans have the right to modify the natural environment to suit their needs	105	53.3	32.4	14.3	1.61	0.727
The balance of nature is strong enough to cope with the impacts of modern industrial nations	107	62.6	19.6	17.8	1.55	0.78
The so-called "ecological crisis" facing humankind has been greatly exaggerated	107	63.6	17.8	18.7	1.55	0.792
Humans were meant to rule over the rest of nature	106	66	21.7	12.3	1.46	0.706

#### Table 17. Environmental Attitudes and Values

 $^{1}1 = \text{disagree}$  2 = neutral 3 = agree

# Awareness and Support for Environmentally-related Government Lands and Programs

In the 2010-2011 visitor survey, new questions were included to study the awareness and support for funding of environmentally-related government lands and programs amongst FNST hikers. Publically-funded programs and were included in the survey. The following two tables (18 & 19) contain the responses of participants to their awareness of the program or land (Table 18), followed by their support for its funding, suggesting an increase or decrease of its amount (Table 19).

Awareness was measured on a scale of one to five with five representing very aware and one representing no awareness. This five point scale was reduced to a three point scale within the analysis in order to simplify the UNIVERSITY OF FLORIDA SCHOOL OF FOREST RESOURCES & CONSERVATION 27

interpretation of results. Respondents were most aware of state parks (mean = 2.79) and national parks (mean = 2.77) among government lands. Of the national land agencies, the BLM was the least known (mean = 2.03). However, the BLM was better known than government subsidies in general. Subsidies and initiatives for geothermal energy were least known (mean = 1.56) (Table 18).

Awareness	n	Not at all Aware (%)	Somewhat Aware (%)	Very Aware (%)	Mean <sup>1</sup>	$SD^2$
State Parks	105	3.8	13.3	82.9	2.79	0.494
National Parks	105	4.8	13.3	81.9	2.77	0.524
State Forests	105	10.5	19	70.5	2.6	0.674
National Forests & Grasslands	105	8.6	23.8	67.6	2.59	0.646
Wilderness Areas	106	9.4	21.7	68.9	2.59	0.659
Wildlife Management Areas	104	7.7	26.9	65.4	2.58	0.634
National Wildlife Refuges	105	13.3	21	65.7	2.52	0.722
National Preserves	105	11.4	32.4	56.2	2.45	0.693
Water Management Districts	105	23.8	26.7	49.5	2.26	0.821
Bureau of Land Management	105	38.1	21	41	2.03	0.893
Solar Energy Subsidies	104	34.6	35.6	29.8	1.95	0.805
Wind Energy Subsidies	105	39	32.4	28.6	1.9	0.82
Fossil Fuel Energy Subsidies	106	40.6	31.1	28.3	1.88	0.825
Nuclear Energy Subsidies	105	47.6	30.5	21.9	1.74	0.797
Biofuel Energy Subsidies	104	48.1	29.8	22.1	1.74	0.8
Coal Energy Subsidies	105	54.3	23.8	21.9	1.68	0.814
Geothermal Energy subsidies	104	60.6	23.1	16.3	1.56	0.761

#### Table 18. Awareness of Government Lands, Programs, and Initiatives

 $^{1}1 = \text{disagree}$  2 = neutral 3 = agree

<sup>2</sup> standard deviation

Support for the funding of government lands is very strong among FNST participants, with national parks receiving the most support (mean = 2.85). Lands where the surveys were conducted were strongly supported for more funding: national forests (mean = 2.80), wildlife management areas (mean = 2.70), and water management districts (mean = 2.57).

Support for the funding of alternative energy sources was generally high. Respondents support most subsidies directed at solar energy generation (mean = 2.58) and wind energy (mean = 2.56). Coal energy and fossil fuel energy were lowest in terms in support for funding (mean = 1.53). As with nuclear energy, an alternative yet controversial energy source, respondents generally supported a decrease in funding (mean = 1.80) (Table 19).

Funding	n	Decrease (%)	Neutral (%)	Increase (%)	Mean <sup>1</sup>	$SD^2$
National Parks	103	1	12.6	86.4	2.85	0.381
National Forests & Grasslands	103	1.9	16.5	81.6	2.8	0.451
State Forests	102	1	17.6	81.4	2.8	0.423
Wilderness Areas	103	1	19.4	79.6	2.79	0.435
National Preserves	103	2.9	15.5	81.6	2.79	0.478
State Parks	103	1	20.4	78.6	2.78	0.441
National Wildlife Refuges	103	1.9	19.4	78.6	2.77	0.469
Wildlife Management Areas	103	5.8	18.4	75.7	2.7	0.575
Solar Energy Subsidies	102	10.8	20.6	68.6	2.58	0.681
Water Management Districts	103	4.9	33	62.1	2.57	0.587
Wind Energy Subsidies	102	11.8	20.6	67.6	2.56	0.698
Geothermal Energy subsidies	103	6.8	41.7	51.5	2.45	0.622
Bureau of Land Management	103	4.9	45.6	49.5	2.45	0.59
Biofuel Energy Subsidies	103	15.5	37.9	46.6	2.31	0.728
Nuclear Energy Subsidies	103	38.8	42.7	18.4	1.8	0.732
Fossil Fuel Energy Subsidies	103	60.2	26.2	13.6	1.53	0.725
Coal Energy Subsidies	103	58.3	30.1	11.7	1.53	0.698

#### Table 19. Support for Government Lands, Programs, and Initiatives

 $^{1}1 = \text{disagree}$  2 = neutral 3 = agree

<sup>2</sup> standard deviation

# Environmentally Responsible Behavior

Pro-environmental behavior was measured using Environmentally Responsible Behavior (ERB) scale items. Seventeen possible behaviors were presented to respondents, and they were asked to identify how often they perform each of the actions. Likelihood of performing the behavior was measured on a scale of one to five with five representing "a great deal" and one representing never. This five point scale was reduced to a three point scale within the analysis in order to simplify the interpretation of results.

Recycling glass and aluminum was identified as the most common ERB item (mean = 2.81). In fact, four of the top five ERB items are related to recycling or purchasing recycled materials. The other being watching TV programs about the environment (mean = 2.61). Respondents rarely wrote to their elected officials expressing their opinions on environmental issues (mean = 1.43). Occasionally, respondents subscribed to environmental publications (mean = 1.94) or attended meetings on environmental/conservation issues (mean = 1.84) (Table 20).

Behaviors	n	Never (%)	Occasionally (%)	A great deal (%)	Mean <sup>1</sup>	$SD^2$
Recycled glass bottles or jars or aluminum cans	42	4.8	9.5	85.7	2.81	0.505
Sorted your trash to separate non-recyclable from recycle	45	8.9	8.9	82.2	2.73	0.618
Bought products made from recycled materials	45	2.2	28.9	68.9	2.67	0.522
Watched TV programs about the environment	102	8.8	21.6	69.6	2.61	0.647
Recycled old newspapers	45	15.6	15.6	68.9	2.53	0.757
Read books/magazines about the environment	103	9.7	40.8	49.5	2.4	0.662
Taken into account the amount of packaging on goods you buy	45	26.7	11.1	62.2	2.36	0.883
Voted for a public official due to his/her record on protecting the environment	103	25.2	17.5	57.3	2.32	0.854
Switched products because of environmental reasons	44	15.9	36.4	47.7	2.32	0.74
Donated money or paid membership due to an	103	34	24.3	41.7	2.08	0.871
Joined in community cleanup efforts	45	35.6	26.7	37.8	2.02	0.866
Car pooled or used public transportation to work	45	37.8	22.2	40	2.02	0.892
Subscribed to environmental publications	102	42.2	21.6	36.3	1.94	0.888
Attended meetings on environmental/conservation issues	45	48.9	17.8	33.3	1.84	0.903
Written to your elected officials expressing your opinions on environmental issues	103	69.9	17.5	12.6	1.43	0.709

#### Table 20. Environmentally Responsible Behavior

 $^{1}$  1 = disagree 2 = neutral 3 = agree  $^{2}$  standard deviation

# **Conclusion and Trail Management Implications**

The results presented in this report are meant to help the USFS, the FTA, and all the FNST's land and recreation managers better understand the number of visitors recreating on the FNST and who these visitors are and what benefits they are seeking. This information can be used to continue to provide quality recreation opportunities in a variety of natural settings along the Trail.

# **Visitor Counts**

The 2010-2011 study year has the second highest estimated visits to the Florida Trail since 2003. It is the second time the total estimate exceeds 350,000. Results indicated only one less visit than last year's estimates. Since all study sites have now been researched at least once, and ten sites have been studied twice, it is confident to say that this year's estimate is a fair reflection of the approximate number of Florida Trail users. The visitation during 2010-2011 suggests a stable use trend for FNST visitation in spite of the economic slow time for the nation. Furthermore, the 2010-2011 estimates also suggest that the trend of increasing use is continuing among high use sites while visits to most medium use sites are declining.

Researchers collected visitor counts on the FNST using observations and infrared eyes. The accuracy and ease of use of the infrared eyes make them the preferred method for collecting data on FNST visitors when observers cannot be present. The Diamond Traffics infrared eyes had been relatively reliable and consistent in the past study years. However, they are showing instability on the performance due to aging, which in turn adds to the difficulty to analyze data, the cost of operation and maintenance, and ultimately the toll on accuracy of data. Based on the overall cost, reliability, and accuracy, we are planning to gradually replace all Diamond types with TrailMasters of future new purchases. Those new TrailMaster 1550 units purchased in 2009 were essential in collecting data over the last two study years since more counters than expected were lost due to wear and tear, and forest prescribed burn.

# Visitor Surveys

Collecting visitor surveys helps to complete the process of assessing FNST visitors and the factors that drew them to the Trail. A majority of visitors reported being motivated to visit the trail to enjoy scenery, experience nature, be close to nature, and explore the area. Also, a majority of visitors considered wilderness and undisturbed nature, and good environmental features (e.g., air, water, and soil), wildlife/birds viewing to be important in the Trail. These findings suggest that managers should provide a high quality of environmental settings. Satisfaction of trail experience is very high, with nearly 20% of visitors reporting a perfect experience, and most often reporting nearly-perfect. However, the most common reasons why the experience was not rated a ten corresponded directly with the suggested improvements users propose for the trail: better blazing and signage, as well as improved trail maintenance. Among trail activities, camping was listed as the primary activity which managers should work to promote.

Results from the New Environmental Paradigm scale indicate that visitors to the Trail are considerably environmentally aware and conscious. They indicate the belief that we as humans cannot solve all of our problems with our "ingenuity" and recognize the need for action in order to protect the natural environment. Respondents were well aware of government lands, and strongly promote increase in funding for national and state land programs. Their household behaviors indicate a high regard for personal environmental action, such as recycling or reading a book about the environment. However, users of the Trail are rarely politically active in the sense of writing to government officials or attending meetings on environmental issues. On the contrary, they will occasionally vote for government officials based on their record of protecting the environment. In the end, these results show a slight disconnect between the want for an increase in funding for our natural lands, yet little political action to make it happen.
# References

- Cope, A., Doxford, D., and Millar, G. (1999). Counting Users of Informational Recreation Facilities. *Managing Leisure*, 4, 229-244.
- Klenosky, D.B. (2002). The pull of tourism destinations: A means-end investigation. *Journal of Travel Research*, 40, 385-395.
- Loomis, J.B. (2000). Counting on Recreation Use Data: A Call for long-Term Monitoring. *Journal of Leisure Research*, 21, 93-96.
- Lynch, J. (2002). A Spatial Model of Overnight Visitor Behavior in a Wilderness Area in Eastern Sierra Nevada. Conference proceedings: *Monitoring and Management of Visitor Flows in Recreational and Protected Areas*, Vienna, Austria.
- Williams, D. R., & Vaske, J. J. (2003). The measurement of place attachment: Validity and generalizability of a psychometric approach. *Forest Science*, 49(6), 830-840.

# **APPENDIX I: 8 Year Study Schedule**

### 2003-2004

Gulf Islands National Seashore Goldhead Branch State Park Ocala National Forest Eglin Air Force Base Apalachicola National Forest Osceola National Forest Little Big Econ State Forest Includes Cross Seminole Trail (Multi-Use Trail) Etoniah Creek State Forest

### 2004-2005

Suwannee Lake Okeechobee Seminole State Forest St. Marks National Wildlife Refuge & Rail Trail Aucilla River WMA Pine Log State Forest Rice Creek

### 2005-2006

Tosohatchee State Preserve Withlacoochee State Forest Blackwater River State Forest Includes Withlacoochee St. Rail-Trail Ellaville/Twin Rivers State Forest Green Swamp East Green Swamp West Ecofina Creek WMA

#### 2006-2007

Big Cypress National Preserve Highlands: S65B to US 98 Bull Creek WMA Greenway Kissimmee River WMA to Avon AFB Three Lakes WMA

### 2007-2008

Ocala National Forest Osceola National Forest Apalachicola National Forest Little Big Econ State Forest Goldhead Branch State Park Etoniah State Forest Big Cypress National Preserve Stephen Foster Folk Culture Center State Park Cross Florida Greenway

### 2008-2009

Apalachicola National Forest Big Cypress National Preserve Cross Florida Greenway Ocala National Forest Osceola National Forest Rice Creek Conservation Area Seminole State Forest St. Marks NWR Suwannee Segment

## 2009-2010

Apalachicola National Forest Big Cypress National Preserve Cross Florida Greenway Econfina WMA Mills Creek WMA Ocala National Forest Osceola National Forest St. Marks NWR Suwannee Segment

### 2010-2011

Apalachicola National Forest Aucilla WMA Big Cypress National Preserve Cross Florida Greenway Ocala National Forest Osceola National Forest Twin Rivers State Forest Withlacoochee State Forest

# **APPENDIX II: Protocol for Classifying Access Points**

## **Protocol for Classifying Access Points**

Throughout the study year, researchers get to know all the FNST access points within a site regardless of whether or not a counter is installed. Researchers talk to land managers, FTA personnel, and visitors who know the area well to get an idea of the type of use at each trailhead. They also randomly visit all access points throughout the year to take notes on the number of cars in the parking lot and the number of people in the area. Data collected from mechanical counters provide continuous counts for selected survey sites. However, there is often more access points within a site then there are mechanical counters. To compensate for these implications, access points that do have mechanical counters are analyzed via protocol and then grouped into the following categories:

- Type A Very high use, well known access point, 500 users/month or more
- Type B High use, between 100-499 users/month
- Type C Medium high use, between 50-99 users/month
- Type D Medium low use, between 15-49 users/month.
- Type E Low use, trailhead or road crossing with really low numbers, 15 users/ month or less

An average for each type of access point is then formulated. Then based on observations and notes taken about access points without counters an access point average that seems suitable for the access point is applied.

# **APPENDIX III: Monitored Access Points 2010-2011**

# **Monitored Access Points (2010-2011)**

The following list of access points were not monitored by mechanical counters or personal observations. Estimations for these access points were derived from access point averages from corresponding access point classifications (Appendix II) where data was collected.

# **Big** Cypress

- 1. Loop Road
- 2. Alligator Alley

# Cross Florida Greenway

- 1. Ross Prairie
- 2. Buckman Lock
- 3. Marshall Swamp
- 4. 49<sup>th</sup> Ave.
- 5. Pruitt

# Ocala National Forest

- 1. Juniper Wilderness
- 2. Alexander Springs
- 3. Grassy pond
- 4. Buck Lake
- 5. Hopkins Prairie

# Osceola National Forest

1. Deep Creek

# Apalachicola National Forest

- 1. FR 150
- 2. Porter Lake
- 3. Bradwell Bay

# Twin Rivers State Forest

1. Black Unit

# Withlacoochee State Forest

1. River Junction

# Aucilla WMA

1. CR 14

**APPENDIX IV: Observation Log** 

Surveyor:		
Date:	Day:	
Time Block:		
Site:		
Access Point:		

Notes (include weather and where you sat):

Time	Number in Group	Gender (#males/females)	Activity	Direction Heading	Starting Point	Ending Point	Notes

# **APPENDIX V: 2010-2011 Counter Locations**

# 2010-2011 Counter Locations

## **Apalachicola National Forest**

- Camel Lake: Counter located <sup>1</sup>/<sub>4</sub> mile east of where FT crosses FR 105 near the campground.
- Sopchoppy: Heading east from FR 329, counter located about 200 feet from road.

## Aucilla WMA

• Goose Pasture Road: Counter located <sup>3</sup>/<sub>4</sub> mile north from kiosk pass over a sinkhole.

# **Big Cypress**

- Oasis South: Counter located about <sup>1</sup>/<sub>4</sub> mile south of the Oasis Visitors Center.
- Oasis North: Counter located about 1 mile north of the Oasis Visitors Center.

# **Cross Florida Greenway**

- Land Bridge: Counter located about 125' west of picnic area.
- Santos: From parking lot follow blue-blazed trail to FT. Counter located about 30 yards south of where the blue-blazed spur trail intersects the FT.
- Rodman East: Where FT crosses Rodman Dam Rd., go through gate on Berm Rd. and follow Berm Rd. for about 225 paces.
- Rodman West: Turn off Rodman Dam Rd., about 1/4 mile before the spillway, onto the boat ramp road and look for a gate and FT to the left, about 150' off main road. Follow FT through the gate. Counter located 108 paces from the gate.

## **Ocala National Forest**

- Juniper Springs Recreation Area: Counter located about <sup>1</sup>/<sub>4</sub> mile in on the FT section going east from the Juniper access road.
- State Road 19: From parking area counter located, north, 317 paces from where trail enters the woods.
- Lake Delancy: Go north 320 paces from the FT sign on the north side of FR 75.

## **Osceola National Forest**

- Turkey Run: Counter located along FT, 150 feet north of parking lot.
- Battlefield: From parking lot follow FT for <sup>1</sup>/<sub>4</sub> mile past Loop A Trail. Counter installed on FT, 100 feet past Loop A Trail.

## **Twin Rivers State Forest**

• Mill Creek North Unit: At the river shore, from the picnic table, the counter located 150 yards toward south on the trail.

## Withlacoochee State Forest

- Tucker Hill: From the parking lot at Croom road, walk on the FT about 1/4 mile toward south. Counter located on the right side of FT.
- Richloam Fire Tower: From the parking lot at Richloam Clay Sink Road, walk on the FT about <sup>1</sup>/<sub>2</sub> toward north. Counter located on the right side of FT.

# **APPENDIX VI: 2010-2011 Seasonal Calibration Factors**

## Table 21. 2010-2011 Calibration Factors

Site	S	June	July	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	April	May
Apalachicola NF	Camel Lake	1	1	1	1	1	1	1	1	1	1	1	1
	Sopchoppy	1	1	1	1	1	1	1	1	1	1	1	1
Aucilla WMA	Goose Pasture	1	1	1	1	1	1	1	1	1	1	1	1
Big Cypress NP	Oasis North	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	Oasis South	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Cross Florida	Landbridge	1	1	1	1	1	1	1	1	1	1	1	1
Greenway	Rodman E	1	1	1	1	1	1	1	1	1	1	1	1
	Rodman W	1	1	1	1	1	1	1	1	1	1	1	1
	Santos	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.16
Ocala NF	Juniper	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14	1.14
	Lake Delancy	1	1	1	1	1	1	1	1	1	1	1	1
	SR 19	1	1	1	1	1	1	1	1	1	1	1	1
Osceola NF	Battle Field	1	1	1	1	1	1	1	1	1	1	1	1
	Turkey Run	1	1	1	1	1	1	1	1	1	1	1	1
Twin River SF	Mill Creek N	1	1	1	1	1	1	1	1	1	1	1	1
Withlacoochee SF	Richloam Fire												
	Tower	1	1	1	1	1	1	1	1	1	1	1	1
	Tucker Hill	1	1	1	1	1	1	1	1	1	1	1	1

# **APPENDIX VII: On-Site Survey**

# Florida Outdoor Recreation Visitor Study

To be completed by surveyor if i	nterview giver	n on-site:		
Site:	-	Date:		
Access Point:	-	Interview Type (Circle o	one): Exit Interview or E	ntry Interview
1. Was this your first time on this	particular trail?	?Yes (Go to quest	tion 4) No (Go	to question 2)
2. In what year did you make your	first visit?			
3. Over the past year, how many ti        None      13        1-6 times      21        7-12 times      m	mes have you -20 times -30 times ore then 30 (#_	used this trail?		
4. About how long did you spend a1 hour or lessH	on the <b>trail</b> tod Half a day One whole day	ay? More than 1 da	y (number of days)	)
<ul> <li>5. If you spent more than one day <ol> <li>At a nearby hotel/condo</li> <li>At a campground off the tra</li> <li>In an established campgrou</li> <li>In a nearby residence of friet</li> </ol> </li> </ul>	in the area, wh iil nd along the tra ends or family	ere did you stay overnight ail	t?	
6. Approximately how many miles[] Less than a mile[] 1-3 miles[] 6-10	s did you travel miles [] ) miles	l on the trail during this vi ] More than 10 miles (# of	sit? f miles)	
7. Hand the participant the action the reason you visited the trail today.	i <b>vity card, Asl</b> ay?	<b>k:</b> From this list of activit	ies, please rank the 3 act	ivities that best describe
1 <sup>st</sup>	2 <sup>nd</sup>	3 <sup>rd</sup>		
8. Including yourself, how many p number of people (	eople were you#males,	u with? #females)		
9. What type of group are you trav	eling with?			
<ul> <li>10. How did you first learn about t</li> <li>[] Friends or Family</li> <li>[] I live nearby &amp; saw the trained in the image of the image of</li></ul>	this trail? (chec l	k all that apply) [] Roadside Signs [] Guidebook [] Newspaper Article	[] Magazine, pla [] Website [] Don't remem	ease specify ber / Not sure
11. On a scale of 1 to 10, with 10	being the perfe	ct experience, how would	you rate your experience	on this trail?
12. If you did not rate your trail ex	perience as a 1	0, can you explain why n	ot?	
13. Are there any other improvement	ents you would	l like to see on the trail?		

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Reason for Visit	Not at all Important	;	Neutral		Very Important
Historical, military, or archeological sites	1	2	3	4	5
To see the natural water features	1	2	3	4	5
Wilderness and undisturbed nature	1	2	3	4	5
Good fishing	1	2	3	4	5
Good big game hunting	1	2	3	4	5
Easy access to the area/being easy to get to	1	2	3	4	5
Good environmental quality of air, water, and soil	1	2	3	4	5
Close to home	1	2	3	4	5
Interesting small towns	1	2	3	4	5
Good small game hunting	1	2	3	4	5
Chance to see wildlife/birds	1	2	3	4	5
Good camping	1	2	3	4	5
Local crafts or handiwork	1	2	3	4	5
Available parking	1	2	3	4	5

14. Please indicate how important each item below was in choosing your leisure destination for this trip.

15.People go to particular areas and participate in recreation activities for any number of reasons. Please indicate how important each experience was for you during your visit to this area today.

Experiences	Not at all important		Neutral		Very Important
To enjoy the scenery	1	2	3	4	5
To relax physically	1	2	3	4	5
To do something with my family	1	2	3	4	5
To get exercise	1	2	3	4	5
To explore the area	1	2	3	4	5
To experience nature	1	2	3	4	5
To be on my own	1	2	3	4	5
To use my own equipment	1	2	3	4	5
To learn about natural history of the area	1	2	3	4	5
To be away from people	1	2	3	4	5
To have thrills and excitement	1	2	3	4	5
To learn more about the nature	1	2	3	4	5
To meet new people	1	2	3	4	5
To test my skills and abilities	1	2	3	4	5
To enjoy the smells and sounds of nature	1	2	3	4	5
To get away from usual demands of life	1	2	3	4	5
To share my skills and knowledge with others	1	2	3	4	5
To be with members of my group	1	2	3	4	5
To be close to nature	1	2	3	4	5
To be with people who enjoy the same things I do	1	2	3	4	5
To experience new and different things	1	2	3	4	5
To experience solitude	1	2	3	4	5
To feel healthier	1	2	3	4	5
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The following questions are designed to better understand the environmental attitudes and values of Florida nature-based recreation visitors. They will not be used to guide policy or management of the lands you visit. 16. Please indicate the extent to which you agree or disagree with each of the following statements:

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
We are approaching the limit of the number of people the earth can support	1	2	3	4	5
Humans have the right to modify the natural environment to suit their needs	1	2	3	4	5
When humans interfere with nature it often produces disastrous consequences	1	2	3	4	5
Human ingenuity will insure that we do NOT make the earth unlivable	1	2	3	4	5
Humans are severely abusing the environment	1	2	3	4	5
The earth has plenty of natural resources if we just learn how to develop them	1	2	3	4	5
Plants and animals have as much right as humans to exist	1	2	3	4	5
The balance of nature is strong enough to cope with the impacts of modern industrial nations	1	2	3	4	5
Despite our special abilities humans are still subject to the laws of nature	1	2	3	4	5
The so-called "ecological crisis" facing humankind has been greatly exaggerated	1	2	3	4	5
The earth is like a spaceship with very limited room and resources	1	2	3	4	5
Humans were meant to rule over the rest of nature	1	2	3	4	5
The balance of nature is very delicate and easily upset	1	2	3	4	5
Humans will eventually learn enough about how nature works to be able to control it	1	2	3	4	5
If things continue on their present course, we will soon experience a major ecological catastrophe	1	2	3	4	5

17. Please indicate to what extent you are aware of the following government lands, programs and initiatives.

Awareness	Not at all Aware	Slightly Aware	Somewhat Aware	Moderately Aware	Very Aware
Fossil Fuel Energy Subsidies	1	2	3	4	5
National Parks	1	2	3	4	5
State Parks	1	2	3	4	5
Nuclear Energy Subsidies	1	2	3	4	5
National Forests & Grasslands	1	2	3	4	5
State Forests	1	2	3	4	5
Solar Energy Subsidies	1	2	3	4	5
Wilderness Areas	1	2	3	4	5
Wildlife Management Areas	1	2	3	4	5
Wind Energy Subsidies	1	2	3	4	5
National Preserves	1	2	3	4	5
Water Management Districts	1	2	3	4	5
Geothermal Energy subsidies	1	2	3	4	5
National Wildlife Refuges	1	2	3	4	5
Biofuel Energy Subsidies	1	2	3	4	5
Bureau of Land Management	1	2	3	4	5
Coal Energy Subsidies	1	2	3	4	5

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18. Please indicate to what extent you believe government should increase or decrease the funding and/or subsidies allotted to the following lands, programs, and initiatives.

Funding	Greatly Decrease	Decrease	Neutral	Increase	Greatly Increase
Fossil Fuel Energy subsidies	1	2	3	4	5
National Parks	1	2	3	4	5
State Parks	1	2	3	4	5
Nuclear Energy subsidies	1	2	3	4	5
National Forests & Grasslands	1	2	3	4	5
State Forests	1	2	3	4	5
Solar Energy subsidies	1	2	3	4	5
Wilderness Areas	1	2	3	4	5
Wildlife Management Areas	1	2	3	4	5
Wind Energy subsidies	1	2	3	4	5
National Preserves	1	2	3	4	5
Water Management Districts	1	2	3	4	5
Geothermal Energy subsidies	1	2	3	4	5
National Wildlife Refuges	1	2	3	4	5
Biofuel Energy subsidies	1	2	3	4	5
Bureau of Land Management	1	2	3	4	5
Coal Energy subsidies	1	2	3	4	5

19. How often have you done each of the following?

Behaviors	Never	Rarely	Occasionally	amount	A great deal
Written to your elected officials expressing your opinions on environmental issues	1	2	3	4	5
Watched TV programs about the environment	1	2	3	4	5
Subscribed to environmental publications	1	2	3	4	5
Read books/magazines about the environment	1	2	3	4	5
Voted for a public official due to his/her record on protecting the environment	1	2	3	4	5
Donated money or paid membership due to an environmental/conservation organization	1	2	3	4	5
Switched products because of environmental reasons	1	2	3	4	5
Joined in community cleanup efforts	1	2	3	4	5
Bought products made from recycled materials	1	2	3	4	5
Attended meetings on environmental/conservation issues	1	2	3	4	5
Recycled glass bottles or jars or aluminum cans	1	2	3	4	5
Taken into account the amount of packaging on goods you buy	1	2	3	4	5
Sorted your trash to separate non-recyclable from recycle materials	1	2	3	4	5
Car pooled or used public transportation to work	1	2	3	4	5
Recycled old newspapers	1	2	3	4	5

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# Florida Outdoor Recreation Visitor Study

We would like to ask a few questions about you, your background, and your past experiences. This information will be used for statistical analysis only, and all information will remain strictly confidential.

1. I	am	[] Male	[] Female							
2. W	/hich o [] Mai [] Sing	of the following ried gle	best describes you [] Divorced [] Widowed	ur status?						
3. H	low ma	any children cur	rently reside in yo	our household?						
4. W	/hat is [] Eig [] Son [] Hig	the highest leve hth grade or less ne High School h School Gradu	el of education you s ate or GED	<ul><li>have completed?</li><li>[] Some College</li><li>[] College Gradua</li><li>[] Some Graduate</li></ul>	(please mark one) ate e School	[] Graduate Degree or beyond	l			
5. A	5. Are you presently (please mark all that apply)         [] Employed Full Time       [] Retired         [] Employed Part Time       [] Full Time Student         [] Unemployed       [] Part Time Student         [] Full Time Homemaker       [] Part Time Student									
6. V	What is	your profession	n or occupation? _							
7. W	/hat ye	ear were you bo	rn?							
8. W	/hat ra [] Afr [] Nat	ce or ethnic gro ican American ive Hawaiian or	up(s) would you p · Pacific Islander	lace yourself in? ( [] Hispanic or La [] American Indi	please mark all tha atino an or Alaskan Nat	tt apply) [] Asian American ive [] White				
9. W	/hat w [] Les [] \$10 [] \$20 [] \$20 [] \$40 [] \$50	as your approxi s than \$10,000 ,001 to \$19,999 ,000 to \$29,999 ,000 to \$39,999 ,000 to \$49,999 ,000 to \$59,999	mate total househo [] \$60,0 [] \$70,0 [] \$80,0 [] \$80,0 [] \$90,0 [] \$100,0	old income, before 00 to \$69,999 00 to \$79,999 00 to \$89,999 00 to \$99,999 000 or more	taxes this past yea	ır?				
9.	Zip C	ode:		_						
11	Are yo If yes, []	u a registered v of which politi Democrat	oter? [] Yes [] cal affiliation do y [] Republican	No you think of yourse [] Independent	elf as? [] Other:					
12.	What [] Cat [] Pro [] Isla	religious group holicism testantism m	would you place y [] Hindu [] Buddl [] Judais	yourself in? iism hism sm	[] Agnostic/Athei [] Other:	st				
13.	Are yo If yes,	ou a member of which group(s)	an interest group i ) do you belong to	related to the mana?	agement of this are	a? [] Yes [] No				

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# **APPENDIX VIII: Individual Site Information**

# **Cross Florida Greenway**

# Visitor Counter Data

Counter type:

- Rodman East: Diamond Traffics Eye
- Rodman West: Diamond Traffics Eye
- Santos: Diamond Traffics Eye
- Land Bridge: Diamond Traffic Eye

Counter related problems and solutions:

- Santos counter was malfunction for eight months. CFG replaced the counter in May, 2011.
- Rodman East counter has been malfunctioning since January 2011. We have recommended CFG to replace the counter.

Trail conditions throughout the year:

• Trail condition over CFG was generally very good throughout the year.

Access Pt.	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Rodman East	37	54	44	50	34	59	27	39	42	37	26	30	477
Rodman West	15	7	7	3	16	34	11	29	33	32	32	16	232
Santos	223	207	31	251	333	338	369	268	317	435	426	368	3,568
Landbridge (475A)	154	200	101	143	308	313	213	402	339	412	354	276	3,213
Baseline/ 64 <sup>th</sup> St. <sup>a</sup>													24,553
Ross Prairie <sup>*</sup>	11	8	9	6	27	31	26	37	43	40	29	23	290
Buckman Lock <sup>*</sup>	11	8	9	6	7	9	6	11	15	24	13	6	126
Marshall Swamp <sup>*</sup>	11	8	9	6	7	9	6	11	15	24	13	6	126
49th Ave.*	189	176	109	205	155	233	225	270	262	316	225	209	2,574
Pruitt <sup>*</sup>	11	8	9	6	27	31	26	37	43	40	29	23	290
Monthly Total	662	674	329	676	913	1,057	909	1,104	1,109	1,360	1,147	955	35,449

# Table 22. FNST Visitation at the CFG 2010-2011

<sup>a</sup> Access Point is multiple use (Foot traffic = 14,089; Other traffic =10,465)

\*Estimation calculated through access point averages (Appendix II)

Estimates from study year 2009-2010 or calculated through access point average



\*Estimate calculated from access point averages (Appendix II)

## 2006-2011 Use Estimates

A comparison of data collected from 2006-2011 shows that highest use year was the 2007-2008 study season with 35,562 estimated FNST visits.

1													
Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL*
2006-2007	653	478	487	534	713	1,084	1,089	1,292	1,210	1,450	1,228	788	27,920
2007-2008	725	564	486	880	625	1,071	1,100	979	1,036	1,389	1,037	1,118	35,562
2008-2009	598	464	715	608	874	1,102	979	1,093	1,152	1,234	1,015	851	35,228
2009-2010	567	448	443	727	830	1,078	1,021	1,092	1,060	1,371	1,120	897	35,196
2010-2011	662	674	329	676	913	1,057	909	1,104	1,109	1,360	1,147	955	35,449
* T. (.1. '1. 1.	Deselin	a / C / 41a (	The section										

Table 23. Comparison of FNST Visitation at CFG 2006-2011

\* Totals include Baseline/64th St. estimates



Figure 6. Comparison of FNST Visitation at CFG 2006-20011

# **Ocala National Forest**

(n = 71)

Visitor Survey Data

Surveys were conducted at the following areas:

- Juniper Recreation Area (n = 30)
- Pat's Island (n = 41)

## Socio-Demographics

79% of respondents were male
39% of respondents were married
67% of respondents had at least a college degree
67% of respondents were employed full time
7% of respondents were retired
93% of respondents were white
Average Household Income: \$50,000
Average Age: 40

## Trip Characteristics

45% of visitors have been to the site before 43% of visitors had visited the trail 1-6 times in the past year 32% of visitors spend a few hours or less on the trail 61% of visitors hike/walk 6 miles or more during their visit 33% of visitors report a 10 out of 10 for their experience that day 65% of visitors stated that hiking/walking was their primary activity 37% of visitors came in groups of two people Average Experience Rating: 8.6 Average Group Size: 3

## *<u>Motivations</u>* (1= not important, 2= neutral, 3= important)

To enjoy the scenery	mean = 2.98
To be close to nature	mean = 2.94
To experience nature	mean = 2.92

<u>Destination Attractors &amp; Settings</u> (1= not important, 2= neutral, 3= important)									
Chance to see wildlife/birds	mean = 2.93								
Wilderness and undisturbed nature	mean = 2.89								
Good environmental quality of air, water, and soil	mean = 2.80								

<u>Environmental Attitudes and Values</u> (1= disagree, 2= neutral, 3= agree)	
Despite our special abilities, humans are still subject to the laws of nature	mean = 2.87
Humans are severely abusing the environment	mean = 2.78
Plants and animals have as much right as humans to exist	mean = 2.75

<u>Funding for Government Lands</u> (1 = decrease, 2 = neutral, 3 = increase)

National Parks	mean = 2.88
National Forests	mean = 2.83
Wilderness Areas	mean = 2.83

# Visitor Counter Data

Counter Type:

- Juniper Recreation Area: Diamond Traffics Eye
- Clearwater Recreation Area: cancelled due to frequent vandalism.
- Lake Delancy: Diamond Traffic Eye
- SR 19: Diamond Traffics Eye
- Juniper Wilderness, Alexander Springs, Hopkins Prairie, Buck Lake, and Grassy Pond were visually monitored and access point averages were applied according to protocol.

**Counter Related Problems and Solutions:** 

- Juniper: the unit was replaced due to malfunction in December 2010.
- SR19: the unit was replaced due to malfunction in October 2010.

Trail conditions throughout the year:

• Throughout the year the trail conditions in Ocala were generally good.

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Juniper Rec.	70	36	39	142	121	148	221	259	266	301	109	89	1,800
Clearwater	35	77	12	29	19	17	17	21	135	164	121	56	703
SR 19	29	65	45	81	80	144	86	157	139	146	76	61	1,106
Lake Delancy	11	6	9	7	25	21	34	41	47	40	13	10	262
Juniper Wilderness <sup>*</sup>	11	8	9	6	52	53	68	68	84	102	85	64	612
Alexander Springs <sup>*</sup>	11	8	9	6	27	31	26	37	43	40	29	23	290
Grassy Pond <sup>*</sup>	11	8	9	6	27	31	26	37	43	40	29	23	290
Buck Lake*	11	8	9	6	27	31	26	37	43	40	29	23	290
Hopkins Prairie <sup>*</sup>	11	8	9	6	27	31	26	37	43	40	29	23	290
TOTAL	200	223	152	289	404	506	531	693	841	914	521	370	5,643

Table 24. FNST Visitation at the Ocala National Forest 2010-2011

\*Estimation calculated through access point averages (Appendix II)

Estimates from previous study year or calculated through access point average

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**Figure 7. FNST Visitation at Ocala National Forest 2010-2011** \*Estimation calculated through access point averages (Appendix II)

## 2003-2011 Use Estimates

A comparison of data collected from 2003-2011 shows that highest use year was the 2006-2007 study season with 6,481 estimated FNST visits.

Study Year	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	March	April	May	TOTAL
2003-2004	*	*	*	*	449	421	260	471	336	377	273	218	2,805
2004-2005	170	114	124	38	203	315	372	554	563	630	511	244	3,838
2005-2006	256	295	301	267	260	515	503	698	724	804	724	497	5,844
2006-2007	395	384	339	376	403	557	558	771	862	819	540	477	6,481
2007-2008	215	167	132	189	316	483	562	630	833	820	522	447	5,316
2008-2009	229	227	298	195	319	531	643	869	928	667	505	392	5,803
2009-2010	232	231	133	177	348	552	576	756	712	846	576	403	5,542
2010-2011	200	223	152	289	404	506	531	693	841	914	521	370	5,643

Table 25. Comparison of FNST Visitation at Ocala National Forest 2003-2011

\* Data collection through the use of mechanical counters did not begin until October 2003



Figure 8. Comparison of FNST Visitation at Ocala National Forest 2003-2011

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## Aucilla WMA

(n = 20)

Visitor Survey Data

Surveys were conducted at the following areas:

• Goose Pasture Road (n = 20)

Socio-Demographics

50% of respondents were male 26% of respondents were married 70% of respondents had at least a college degree 60% of respondents were employed full time 15% of respondents were retired 95% of respondents were white Average Household Income: \$52,000 Average Age: 43

Trip Characteristics

40% of visitors have been to the site before 36% of visitors had visited the trail 1-6 times in the past year 70% of visitors spend a few hours or less on the trail 35% of visitors hike/walk 6 miles or more during their visit 37% of visitors report a 10 out of 10 for their experience that day 55% of visitors stated that hiking/walking was their primary activity 40% of visitors came in groups of two people Average Experience Rating: 8.4 Average Group Size: 2.8

<i><u>Motivations</u></i> (1= not important, 2= neutral, 3= important)	
To enjoy the scenery	mean = 3.00
To experience nature	mean = 2.84
To be close to nature	mean = 2.79

<u>Destination Attractors &amp; Settings</u> ( $1 = not$ important, $2 = neutral$ , $3 = important$ )									
Wilderness and undisturbed nature	mean = 2.89								
To see natural water features	mean = 2.79								
Good environmental quality of air, water, and soil	mean = 2.63								

Environmental Attitudes and Values (1= disagree, 2= neutral, 3= agree)

We are approaching the limit of the number of people the earth can support	mean = 2.89
Plants and animals have as much right as humans to exist	mean = 2.89
Despite our special abilities, humans are still subject to the laws of nature	mean = 2.89

*Funding for Government Lands* (1= decrease, 2= neutral, 3= increase)

National Parks	mean $= 2.89$
State Forests	mean = 2.89
National Preserves	mean $= 2.89$
Wildlife Management Areas	mean $= 2.63$

# Visitor Counter Data

Counter type:

• Goose Pasture Road: TrailMaster Traffic Eye

Counter related problems and solutions:

• The counter performed fairly well throughout the year.

Trail conditions throughout the year:

• Trail condition was excellent throughout the year.

## Table 26. FNST Visitation at Aucilla WMA 2010-2011

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Goose Pasture Rd.	15	15	10	28	54	22	18	53	70	47	20	60	410
CR 14*	11	8	9	6	7	9	6	11	15	24	13	6	126
Monthly Total	26	23	19	34	60	31	24	64	85	71	33	65	536

\* Estimation calculated by access point averages (Appendix II)



### Figure 9. FNST Visitation at Aucilla WMA 2010-2011

\* Estimation calculated through access point averages (Appendix II)

## 2004-2011 Use Estimates

A comparison of data collected from 2004-2011 shows that highest use year was the 2010-2011 study season with 536 estimated FNST visits.

Table 27. Comparison of FNS	<b>F</b> Visitation at Aucilla	WMA 2004-2011
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Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2004-2005	48	49	37	37	47	40	27	63	33	85	45	7	518
		_			_		-						

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Figure 10. Comparison of FNST Visitation at Aucilla WMA 2004-2011

# **Big Cypress National Preserve**

# Visitor Counter Data

Counter type:

- Oasis North: Diamond Traffics Eye
- Oasis South: Diamond Traffics Eye

Counter related problems and solutions:

• Oasis South counter was replaced due to malfunction in May, 2011.

Trail conditions throughout the year:

- Oasis North had drier condition than last year.
- Oasis South had normal condition throughout the year.

Access Point	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Oasis South	39	26	30	19	19	52	40	51	41	64	49	21	450
Oasis North	72	34	38	65	61	163	248	338	256	238	134	76	1,723
Loop Road*	33	36	29	36	27	31	26	37	43	40	29	23	390
Alligator Alley*	11	8	9	6	27	31	26	37	43	40	29	23	290
Monthly Total	156	103	107	126	133	277	341	462	382	382	242	142	2,853

Table 28. FNST Visitation at Big Cypress National Preserve 2010-2011

\*Estimate calculated from access point averages (Appendix II)

Estimates calculated through access point average



\*Estimate calculated from access point averages (Appendix II)

# 2006-2011 Use Estimates

A comparison of data collected from 2006-2011 shows that the highest use year was the 2006-2007 study season with 3,378 estimated FNST visits.

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2006-2007	88	75	68	79	152	216	362	525	529	591	504	188	3,378
2007-2008	154	164	66	180	113	125	226	547	397	520	265	295	3,051
2008-2009	99	108	119	126	129	281	154	418	432	451	338	230	2,885
2009-2010	98	109	147	133	170	250	291	347	383	389	297	171	2,784
2010-2011	156	103	107	126	133	277	341	462	382	382	242	142	2,853



 Table 29. Comparison of FNST Visitation at Big Cypress 2006-2011

Figure 12. Comparison of FNST Visitation at Big Cypress National Preserve 2006-2011

# **Twin Rivers State Forest**

(n = 42)

# Visitor Counter Data

Counter type:

• Mill Creek North: TrailMaster Eye.

Counter related problems and solutions:

• None.

Trail conditions throughout the year:

• Good

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	ΤΟΤΑΙ
Ellaville**	8	47	78	87	70	34	76	69	78	93	91	87	818
Mill Creek North	13	13	13	8	27	34	26	16	28	13	12	7	209
Black Unit*	11	8	9	6	7	9	6	11	15	24	13	6	126
Monthly Total	32	68	100	101	103	77	108	96	121	130	116	100	1.152

Table 30. FNST Visitation at Twin Rivers State Forest 2010-2011

 $\ast$  Estimation calculated by access point averages (Appendix II)

\*\* Data collected during 2005-2006 study year



**Figure 13. FNST Visitation at Twin Rivers State Forest 2010-2011** \* Estimation calculated by access point averages (Appendix II)

\*\* Data collected during 2005-2006 study year

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# 2005-2011 Use Estimates

A comparison of data collected from 2005-2011 shows that highest use year was the 2010-2011 study season with 1,152 estimated FNST visits.

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2005-2006	34	59	100	89	98	56	88	95	86	119	113	99	1,036
2010-2011	32	68	100	101	103	77	108	96	121	130	116	100	1,152

Table 31. Comparison of FNST Visitation at Twin Rivers State Forest 2005-2011



Figure 14. Comparison of FNST Visitation at Twin Rivers State Forest 2005-2011

# Withlacoochee State Forest

## Visitor Counter Data

Counter type:

- Tucker Hill: TrailMaster Eye
- Richloam Fire Tower: Diamond Traffic Eye

Counter related problems and solutions:

- Richloam Fire Tower counter was replaced due to malfunction in November, 2010.
- Tucker Hill counter was replaced due to malfunction in September, 2010.

Trail conditions throughout the year:

• Very good.

## Table 32. FNST Visitation at Withlacoochee State Forest 2010-2011

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Richloam Fire Tower	30	31	93	104	73	19	19	33	24	39	44	45	551
Hog Island***	15	31	10	42	37	68	55	76	69	133	97	30	663
Tucker Hill	62	66	55	43	115	83	97	96	118	180	147	57	1,116
River Junction*	50	52	63	78	52	53	68	68	84	102	85	64	821
Rail Trail**													14,025
Monthly Total	157	180	220	267	277	222	239	273	294	453	372	196	17,175

\* Estimation calculated by access point average (Appendix II)

\*\* Access point is multiple use (Foot traffic = 2,509; other traffic = 11,516)

\*\*\* Data collected during 2005-2006 study year

Estimates calculated through access point average

Rail Trail:	
Estimated Foot Traffic:	2,509
Estimated Other Traffic:	11,516
Total Estimated Traffic:	14,025



**Figure 15. FNST Visitation at Withlacoochee State Forest 2010-2011** \* Estimation calculated by access point average (Appendix II)

\*\*\* Data collected during 2005-2006 study year

### 2005-2011 Use Estimates

A comparison of data collected from 2005-2011 shows that highest use year was the 2010-2011 study season with 1,152 estimated FNST visits.

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL*
2005-2006	86	179	278	214	195	486	413	344	309	366	323	185	17,403
2010-2011	157	180	220	267	277	222	239	273	294	453	372	196	17,175

Table 33. Comparison of FNST Visitation at Withlacoochee State Forest 2005-2011



Figure 16. Comparison of FNST Visitation at Withlacoochee State Forest 2005-2011

# **Osceola National Forest**

(n = 15)

## Visitor Survey Data

Surveys were conducted at the following areas:

- Olustee Trailhead (n=12)
- Turkey Run Trailhead (n=3)

## Socio-Demographics

73% of respondents were male
60% of respondents were married
73% of respondents had at least a college degree
80% of respondents were employed full time
0% of respondents were retired
100% of respondents were white
Average Household Income: \$52,000
Average Age: 38

## Trip Characteristics

20% of visitors have been to the site before 14% of visitors had visited the trail 1-6 times in the past year 53% of visitors spend a few hours or less on the trail 54% of visitors hike/walk 6 miles or more during their visit 18% of visitors report a 10 out of 10 for their experience that day 87% of visitors stated that hiking/walking was their primary activity 60% of visitors came in groups of two people Average Experience Rating: 7.8 Average Group Size: 2.1

## <u>*Motivations*</u> (1 = not important, 2 = neutral, 3 = important)

To enjoy the scenery	mean = 3.00
To explore the area	mean = 3.00
To experience nature	mean = 3.00

<u>Destination Attractors &amp; Settings</u> (1= not important, 2= neutral, 3= imp	ortant)
Wilderness and undisturbed nature	mean = 3.00
Good environmental quality of air, water, and soil	mean = 2.86
Chance to see wildlife/birds	mean = 2.64

<u>Environmental Attitudes and Values</u> $(1 = disagree, 2 = neutral, 3 = agree)$	
Despite our special abilities, humans are still subject to the laws of nature	mean = 2.85
Plants and animals have as much right as humans to exist	mean = 2.75
When humans interfere with nature it often produces disastrous consequences	mean = 2.64

*Funding for Government Lands* (1= decrease, 2= neutral, 3= increase)

National Preserves	mean = 2.89
National Parks	mean = 2.86
Wilderness Areas	mean = 2.86
State Forests	mean = 2.79
State Parks	mean = 2.79
National Forests	mean = 2.71

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### Visitor Counter Data

Counter type:

- Battlefield: Trail Master
- Turkey Run: Trail Master

Counter related problems and solutions:

• Turkey Run counter was replaced due to prescribed burn damage in February, 2011.

Trail conditions throughout the year:

• Both excellent. Festival in October 2010 at Battlefield seemed having not affected the trail use level.

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Battlefield	10	7	2	2	19	28	18	30	61	33	27	11	245
Turkey Run	14	15	15	13	19	28	13	37	45	29	25	28	278
Deep Creek <sup>*</sup>	11	8	9	6	7	9	6	11	15	24	13	6	126
Monthly Total	35	29	26	21	44	65	36	78	121	85	65	44	649

Table 34. FNST Visitation at Osceola National Forest 2010-2011

\* Estimation calculated using access point averages (Appendix II) Estimates calculated through access point average



**Figure 17. FNST Visitation at Osceola National Forest 2009-2010** \* Estimation calculated using access point averages (Appendix II)

#### 2003-2011 Use Estimates

A comparison of data collected from 2003-2011 shows that the highest use year was the 2004-2005 study season with 1,609 estimated FNST visits.

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Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2003-2004	*	*	*	*	48	30	18	55	116	71	41	35	414
2004-2005	45	18	24	0	21	212	282	241	277	254	147	88	1609
2005-2006	33	39	68	52	89	200	211	195	176	269	142	30	1504
2006-2007	39	25	26	26	57	26	124	87	190	79	75	24	692
2007-2008	36	26	19	37	60	63	39	53	91	76	44	30	571
2008-2009	27	21	37	48	43	67	56	98	63	92	67	38	657
2009-2010	27	20	39	28	57	58	35	90	78	74	67	38	611
2010-2011	35	29	26	21	44	65	36	78	121	85	65	44	649

Table 35. Comparison of	Visitation at Osceola	National Forest 2003-2011
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\*Counter were not installed until October of 2003



Figure 18. Comparison of Visitation at Osceola National Forest 2003-2011

# **Apalachicola National Forest**

## Visitor Counter Data

Counter type:

- Sopchoppy: TrailMaster Eye
- Camel Lake: TrailMaster Eye

Counter related problems and solutions:

• Both counter preformed well throughout the year.

Trail conditions throughout the year:

• In both locations, the trail condition was good.

Table 36. FNST Visitation	at Apalach	icola Nationa	I Forest	2010-2	2011	

Access Pt.	Jun	Jul	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	TOTAL
Camel Lake	3	4	0	1	4	6	5	7	22	33	16	6	104
Sopchoppy	4	6	13	2	23	27	25	26	47	64	50	17	302
FR 150*	11	8	9	27	31	26	37	43	40	29	23	21	305
Bradwell Bay Wilderness*	11	8	9	6	23	30	30	38	42	41	29	21	288
Porter Lake*	11	8	9	6	23	30	30	38	42	41	29	21	288
Monthly Total	39	33	41	42	103	119	126	152	192	208	146	86	1,287

\*Estimation calculated by access point averages (Appendix II)



**Figure 19. FNST Visitation at Apalachicola National Forest 2010-2011** \*Estimation calculated by access point averages (Appendix II)

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#### 2003-2011 Use Estimates

A comparison of data collected from 2003-2011 shows that the highest use year was the 2005-2006 study season with 2,457 estimated FNST visits.

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2003-2004	*	*	*	*	150	107	63	156	154	273	334	158	1,933
2004-2005	115	61	65	33	79	106	79	118	122	171	80	72	1,099
2005-2006	127	129	115	136	137	255	184	231	291	270	214	368	2,457
2006-2007	149	138	123	138	88	134	94	159	188	238	106	85	1,640
2007-2008	60	39	46	30	102	132	140	149	210	151	132	81	1,271
2008-2009	43	40	58	25	101	120	116	157	186	227	140	83	1,296
2009-2010	43	36	46	27	75	120	127	132	184	221	124	92	1,227
2010-2011	39	33	41	42	103	119	126	152	192	208	146	86	1,287

 Table 37. Comparison of FNST Visitation at Apalachicola National Forest 2003-2011

\* Mechanical Counter not installed until October of 2003



Figure 20. Comparison of FNST Visitation at Apalachicola National Forest 2003-2011

#### **Green Swamp Water Management District**

(n = 13)

#### Visitor Survey Data

Surveys were conducted at the following areas:

- State Road FL471 Trailhead (n= 12)
- Rock Ridge Rd. (n= 1)

### Socio-Demographics

62% of respondents were male 54% of respondents were married 78% of respondents had at least a college degree 69% of respondents were employed full time 15% of respondents were retired 92% of respondents were white Average Household Income: \$58,000 Average Age: 42

#### Trip Characteristics

31% of visitors have been to the site before
33% of visitors had visited the trail 1-6 times in the past year
54% of visitors spend a few hours or less on the trail
47% of visitors hike/walk 6 miles or more during their visit
0% of visitors report a 10 out of 10 for their experience that day
54% of visitors stated that hiking/walking was their primary activity
39% of visitors came in groups of two people
Average Experience Rating: 6.7
Average Group Size: 2.2

<u>*Motivations*</u> (1= not important, 2= neutral, 3= important)

mean = 3.00
mean = 3.00
mean = 3.00
mean = 3.00

<u>Destination Attractors &amp; Settings</u> (1= not important, 2= neutral, 3= imp	ortant)
Wilderness and undisturbed nature	mean = 3.00
Good environmental quality of air, water, and soil	mean = 2.75
Easy access to the area/being easy to get to	mean = 2.50

Environmental Attitudes and Values (1= disagree, 2= neutral, 3= agree)

Humans are severely abusing the environment	mean = 3.00
Despite our special abilities, humans are still subject to the laws of nature	mean = 2.92
The earth is like a spaceship with very limited room and resources	mean = 2.83

*Funding for Government Lands* (1= decrease, 2= neutral, 3= increase)

National Preserves	mean $= 2.75$
National Parks	mean = 2.67
Bureau of Land Management	mean = 2.67
National Forests	mean = 2.67
State Parks	mean = 2.67
Water Management Districts	mean = 2.50

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