Florida National Scenic Trail
Visitor Assessment

A View from Florida National Scenic Trail by St. Marks NWR 2009

2009

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

By:
Bin Wan
Joshua Cucinella
Taylor Stein

University of Florida, School of Forest Resources and Conservation

Table of Contents

List of Tables

Table **Page**

List of Figures

Figure **Page**

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 and develop a continual understanding of why they visit the trail. Following baseline data collection from 2003-2008, 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, 2008 – May 31, 2009.

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.

2008-2009 Results

Estimation of Trail Visits

The FNST is primarily meant to be 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 2008-2009 study season, the FNST received an estimated 349,701 visits of which 52% were estimated to be pedestrian visits and 48% were estimated to be other visits.

Total estimation of annual visits: 349,701

- Total pedestrians: 180,366
- Total other users: 169,335
- Total estimated summer use (June 1- September 30) : 34,917
- Total estimated fall/spring use (October-May) : 314,783

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.

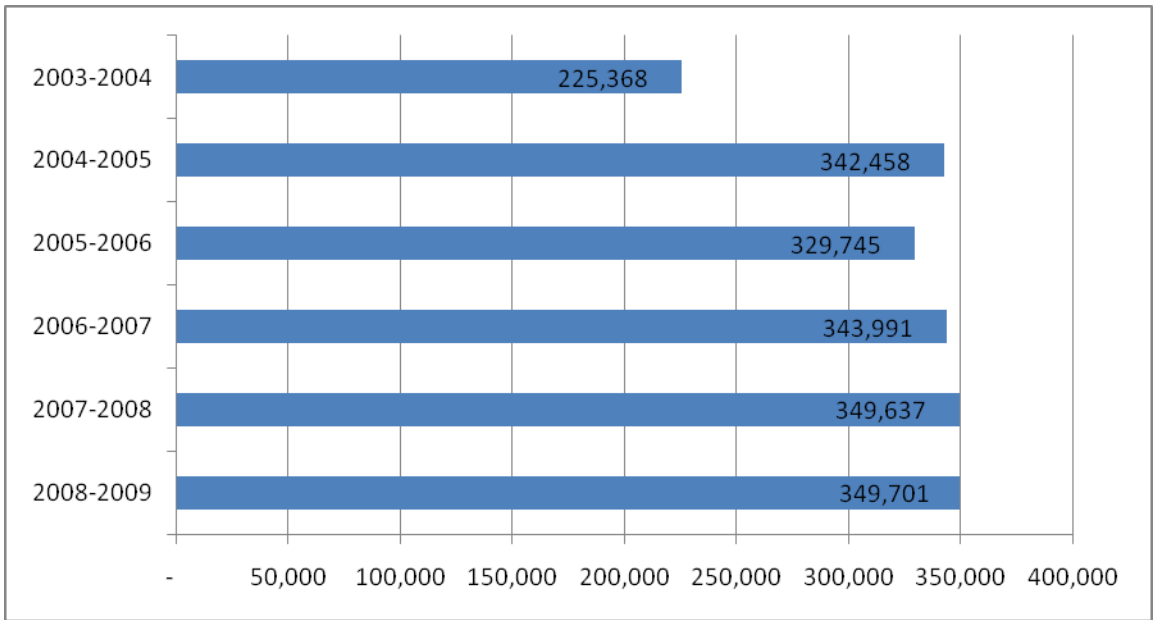

Figure 1. Annual use of the Florida National Scenic Trail 2003-2009

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 five high use study sites from March 1, 2009 through May 31, 2009. These results are as follows:

Participant Trip Characteristics

87% of respondents lived within 30 miles of the FNST
78% of respondents were repeat visitors to the FNST
56% of respondents spent (1) hour or less on the FNST
44% of respondents traveled in pairs, typically with a family member

Participant FNST Experience & Knowledge

47% of respondents stated they had a perfect experience along the FNST
41% of respondents reported a nearly perfect experience along the FNST
38% of visitors had no suggested improvements for the trail, stating they were happy the way it was
50% of respondents learned about the FNST due to their residential proximity to the trail

Visitor Demographics

57% of respondents were male
35% of respondents were 60 years of age or older
57% of respondents were married
68% of respondents had no children living at home
55% of respondents were college graduates
52% of respondents were employed
91% of respondents were white
20% of respondents reported an annual household income (pre-tax) of $90,000 or more

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 visitors themselves such as visitor motivations, visitor preferences, visitor knowledge of the area, and 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, 2008, in order to gather baseline information on current trail visitation and current visitor characteristics. Beginning in June 2008, data collection as 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, 2007 through May 31, 2008 at nine 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 of the nine 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 each section 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 Type	Monthly Number of Visits
A	500 or more
B	100-499
C	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 1st to September 31st
2. Fall/Spring Season, October 1st to May 31st

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 2008-2009 study season, researchers collected visitor use data from nine study sites (Figure 2):

1. Apalachicola National Forest
2. Big Cypress National Preserve
3. Cross Florida Greenway

4. Ocala National Forest
5. Osceola National Forest
6. Rice Creek Conservation Area
7. Seminole State Forest
8. St. Marks NWR
9. Suwannee Segment

Information on individual sites where visitor surveys were gathered can be viewed in Appendix IX. These nine 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 2008-2009 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 were 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, the number of 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 2008-2009 study year, Baseline & 64th Street trailheads at the Cross Florida Greenway and the Black Hammock Trailhead at Little Big Econ State Forest were the only sites in which user levels were estimated using the personal observation method.

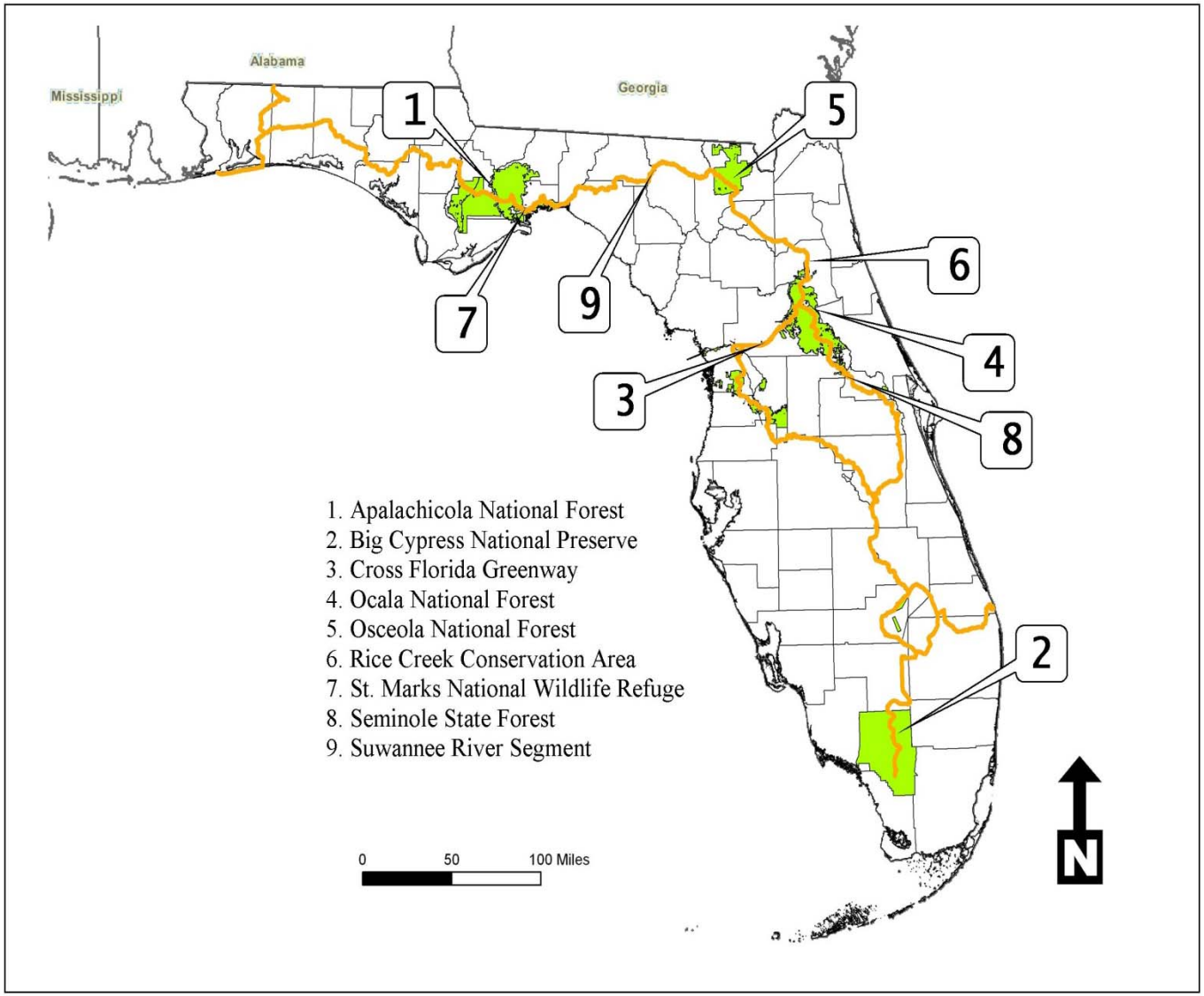

Figure 2. Florida National Scenic Trail 2008-2009 Study Sites

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 18 counters where installed for the 2008-2009 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 12-15 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 this beam is broken a hiker, wildlife, or other user 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 the way in which is stores data is slightly different. The counter is cased with water proof hard plastic, and operates on 4-C batteries that usually last 8-10 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 2008-2009 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 March 1, 2009 through May 31, 2009.

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 297 visitors were approached to complete the survey of which 65 declined and 10 were incomplete resulting in 222 completed surveys for a 75% response rate.

The survey was given to one consenting participant 18 years of age or older within every group 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 8-10 minutes of the participant's time to complete, and contained 25 questions pertaining to frequency of trail use, primary activities, group size, trip length, trip satisfaction, trip motivation, setting preferences, 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,…,8)\

k = weekday (1) and weekend (2)

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

m = number of counts for sampling period on day type k at access point i of site j

N_{ijkl} = number of times counted during shift l on day type k at access point i of site

X_{ijklm} = the count on mth repetition for sampling period l on day type k at access point i of site j

X_{ijkl}= average count during sampling period l on day type k at access point i of site j

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.

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

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} = average daily count on day type *k* at access point *i* 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.

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

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.

Step 1: Adjust Raw Data
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*.

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 socio-demographic characteristics, motivations, and desired settings. In some cases a cross-tabs 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

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 v11.5.

Results

Visitor Use Estimates

This section describes the results from mechanical counters and on site observations during the 2008-2009 study year. Seasonal trail visitor estimations were derived by totaling:

- Data from previous years' research (June 2003- May 2008), and
- Results from this year's research (June 2008 – May 2009)

The 2008-2009 study year has the highest estimated visits to the Florida Trail. There were 64 more estimated visits to the FNST in 2008-2009 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.

Eight Trail Master 1550 infrared counters and ten Diamond Traffics infrared counters were used in 2008-2009 research season to collect visitation data. All of these counters performed reasonably well throughout the year, with some mechanical issues arising due to aging equipment. Of the 18 counters, half of all Diamond Traffic counters (one each at Big Cypress North and South; and one each at Santos, SR 19 and Rodman East) experienced mechanical issues during the study year, resulting in approximately one-month of data loss at each location. In addition, two Trail Master units at Battle Field and Suwannee River State Park also experienced mechanical failures resulting periods of loss of data. Furthermore, the unit at Clearwater was vandalized repeatedly and eventually damaged the counter beyond repair. In all cases where the counter was vandalized, or experienced mechanical issues, 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 IX.

Estimate of Summer Visits

The estimated use for all nine sites studied during the summer of 2008 was 9,852 (Table 3). The sites studied consisted of seven high-use, one medium-use and one low-use sites. The highest use occurred at Cross Florida Greenway with 6,135 visits of which 5,511 were estimated to be pedestrian traffic and 624 visits were estimated to be other users. St. Marks NWR & Rail Trail had the second highest estimated with 1,458 visits (229 pedestrian traffic; 1,229 other traffic). The lowest visitation occurred at Rice Creek Conservation Area with 19 total visits for the summer. Osceola National Forest was the next lowest with 131 summer visits.

Total estimated summer use for the entire Florida National Scenic Trail during the summer of 2008 was 34,918 (Table 4), that was 104 visits less than the 2007 summer estimate. The highest use site for all 27 segments was Little Big Econ State Forest with a total of 9,158 estimated visits. The lowest use site was estimated to be Rice Creek with 19 visits followed by Eglin AFB with 54 visits. Two of the national forests had more counts in the summer of 2008 than in 2007. Specifically, visitation to the FNST within Ocala National Forest increased from 702 hikers in the summer of 2007 to 941 hikers in 2008, a 34% increase; and visits within Osceola National Forest increased 13% going from 116 in 2007 to 131 in 2008. However, Apalachicola National Forest had a 7% decrease in FNST visitation, declining from 174 hikers in 2007 to 161 in 2008. Furthermore, two more sites also showed a declining trend: Cross Florida Greenway decreased 4% from 6,412 hikers in the summer of 2007 to 6,135 hikers in 2008; and Big Cypress declined 20% from 563 hikers in the summer of 2007 to 452 hikers in 2008.

Table 3. Estimate of Summer Visitation at 2008-2009 Study Sites

Use Type	Site	Foot Traffic	Other Traffic	TOTAL
High	Cross Florida Greenway	5,511	624	6,135
	St. Marks NWR & Rail Trail	229	1,229	1,458
	Ocala National Forest	941	0	941
	Big Cypress National Preserve	452	0	452
	Suwannee	303	0	303
	Seminole State Forest	252	0	252
	Apalachicola National Forest	161	0	161
Medium	Osceola National Forest	131	0	131
Low	Rice Creek	19	0	19
Subtotals		***7,999***	***1,853***	***9,852***
Total Estimate for Summer 2008 Study Sites				**9,852**

Table 4. Estimates of Summer Trail-wide Visitation 2008-2009

Use Type	Location	Foot Traffic	Other Traffic	Total Use
Highest	Lake Okeechobee	1,329	1,229	2,558
	Total highest use estimate	***1,329***	***1,229***	***2,558***
High	Little Big Econ St. Forest	4,894	4,264	9,158
	Cross Florida Greenway	5,511	624	6,135
	Gulf Islands National Seashore	2,430	3,380	5,810
	Withlacoochee State Forest & Rail Trail	1,306	2,519	3,825
	St. Marks NWR & Rail Trail	229	1,229	1,458
	Ocala National Forest	941	0	941
	Blackwater River State Forest	732	0	732
	Highlands (S65B to US 98)	495	0	495
	Three Lakes WMA	491	0	491
	Big Cypress National Preserve	452	0	452
	Green Swamp WMA	366	0	366
	Suwannee	303	0	303
	Twin Rivers State Forest	282	0	282
	Seminole State Forest	252	0	252
	Goldhead Branch State Park	234	0	234
	Apalachicola National Forest	161	0	161
	Total high use estimate	***19,079***	***12,016***	***31,095***
Medium	Aucilla WMA	221	0	221
	Bull Creek WMA	199	0	199
	Kissimmee River/Avon AFB	183	0	183
	Tosohatchee State Preserve	177	0	177
	Osceola National Forest	131	0	131
	Econfina WMA	131	0	131
	Etoniah State Forest	78	0	78
	Pine Log State Forest	72	0	72
	Eglin AFB	54	0	54
	Total medium use estimate	***1,246***	***0***	***1,246***
Low	Rice Creek	19	0	19
	Total low use estimate	***19***	***0***	***19***
Subtotals		**21,673**	**13,245**	**34,918**
TOTAL SUMMER 2008 FNST VISITATION			**34,918**	

Estimation of Fall/Spring Visits

The estimated use for all nine sites studied during the fall/spring of 2008-2009 was 54,040 (Table 5). The Marjorie Harris Carr Cross Florida Greenway received the highest number of visits (29,092) of which 66% (19,251) was estimated to be pedestrian traffic and 34% (9,841) was estimated to be other types of traffic. St. Marks NWR & Rail Trail had the second highest estimated number of visits during the fall/spring season with a total of 11,717 visits of which 1,155 were estimated to be foot traffic and 10,562 were estimated to be other types of traffic. The lowest use area during the fall/spring was Rice Creek with 280 visits. Osceola National Forest (455 visits) was the next lowest use area studied.

Table 5. Estimate of Fall/Spring Visitation at 2008-2009 Study Sites

Use Type	Site	Foot Traffic	Other Traffic	TOTAL
High	Cross Florida Greenway	19,251	9,841	29,092
	St. Marks NWR & Rail Trail	1,155	10,562	11,717
	Ocala National Forest	4,853	0	4,853
	Big Cypress National Preserve	2,431	0	2,431
	Suwannee	2,293	0	2,293
	Seminole State Forest	1,342	449	1,791
	Apalachicola National Forest	1,128	0	1,128
Medium	Osceola National Forest	455	0	455
Low	Rice Creek	280	0	280
Subtotals		***33,188***	***20,852***	***54,040***
Total Estimate for Fall/Spring 2008 Study Sites				**54,040**

Total estimated fall/spring visitation for the entire Florida National Scenic Trail was 314,783, that was168 visits increase from last year's estimate of 314,615 (Table 6). In reflecting this change, the Cross Florida Greenway had 58 fewer visits in FNST during the current study year (29,092) than 2007-2008 study year (29,150 visits). However, visitation to the Florida Trail in the Ocala National Forest had 5% more counts in the fall/spring of 2008-2009 (4,853) than in 2007-2008 (4,615) and the Apalachicola National Forest had a 3% increase visitation in fall/spring 2008-2009 (1,128) over 2007-2008 (1,097). Big Cypress had 57 fewer hikers in the fall/spring of 2008-2009(2,431) than in 2007-2008 (2,488) while Osceola National Forests had the same number of hikers in the fall/spring of 2008-2009 (455) as in 2007-2008 (455).

Table 6. Estimate of Fall/Spring Trail-wide Visitation 2008-2009

Use Type	Location	Foot Traffic	Other Traffic	Total Use
Highest	Lake Okeechobee	89,930	111,482	201,412
	Total Fall Highest Use	***89,930***	***111,482***	***201,412***
High	Cross Florida Greenway	19,251	9,841	29,092
	Gulf Islands National Seashore	8,220	8,643	16,863
	Withlacoochee State Forest & Rail Trail	4,581	8,997	13,578
	Little Big Econ St. Forest	7,238	6,116	13,354
	St. Marks NWR & Rail Trail	1,155	10,562	11,717
	Goldhead Branch State Park	5,272	0	5,272
	Ocala National Forest	4,853	0	4,853
	Big Cypress National Preserve	2,431	0	2,431
	Suwannee	2,293	0	2,293
	Blackwater River State Forest	1,974	0	1,974
	Seminole State Forest	1,342	449	1,791
	Highlands (S65B to US 98)	1,240	0	1,240
	Three Lakes WMA	1,213	0	1,213
	Apalachicola National Forest	1,128	0	1,128
	Green Swamp WMA	810	0	810
	Twin Rivers State Forest	752	0	752
	Total high use site estimate	***63,753***	***44,608***	***108,361***
Medium	Bull Creek WMA	800	0	800
	Econfina WMA	755	0	755
	Pine Log State Forest	662	0	662
	Eglin AFB	610	0	610
	Osceola National Forest	455	0	455
	Tosohatchee State Preserve	428	0	428
	Aucilla WMA	376	0	376
	Kissimmee River/Avon AFB	343	0	343
	Etoniah State Forest	301	0	301
	Total medium use site estimate	***4,730***	***0***	***4,730***
Low	Rice Creek	280	0	280
	Total low use site estimate	***280***	***0***	***280***
Subtotals		***158,693***	***156,090***	***314,783***
TOTAL FALL SPRING 2008 FNST VISITATION			**314,783**	

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 349,701 total visits in 2008-2009, 64 visits increase from 2007-2008 (Table 7). Fifty-two percent of these visits were foot traffic and forty-eight percent were other traffic.

Table 7. Estimated FNST Trail-wide Visitation for 2008-2009 Study Year

Use Type	Location	Foot Traffic	Other Traffic	Total Use
Highest	Lake Okeechobee	91,259	112,711	203,970
	Total Fall Highest Use	***91,259***	***112,711***	***203,970***
High	Cross Florida Greenway	24,762	10,465	35,227
	Gulf Islands National Seashore	10,650	12,023	22,673
	Little Big Econ St. Forest	12,132	10,380	22,512
	Withlacoochee State Forest & Rail Trail	5,887	11,516	17,403
	St. Marks NWR & Rail Trail	1,384	11,791	13,175
	Ocala National Forest	5,794	0	5,794
	Goldhead Branch State Park	5,506	0	5,506
	Big Cypress National Preserve	2,883	0	2,883
	Blackwater River State Forest	2,706	0	2,706
	Suwannee	2,596	0	2,596
	Seminole State Forest	1,594	449	2,043
	Highlands (S65B to US 98)	1,735	0	1,735
	Three Lakes WMA	1,704	0	1,704
	Apalachicola National Forest	1,289	0	1,289
	Green Swamp WMA	1,176	0	1,176
	Twin Rivers State Forest	1,034	0	1,034
	Total high use site estimate	***82,832***	***56,624***	***139,456***
Medium	Bull Creek WMA	999	0	999
	Econfina WMA	886	0	886
	Pine Log State Forest	734	0	734
	Eglin AFB	664	0	664
	Tosohatchee State Preserve	605	0	605
	Aucilla WMA	597	0	597
	Osceola National Forest	586	0	586
	Kissimmee River/Avon AFB	526	0	526
	Etoniah State Forest	379	0	379
	Total medium use site estimate	***5,976***	***0***	***5,976***
Low	Rice Creek	299	0	299
	Total low use site estimate	***299***	***0***	***299***
Subtotals		***180,366***	***169,335***	***349,701***
TOTAL ESTIMATE FOR 2008-2009 FNST VISITATION			**349,701**	

Comparison of Site Visitation

From the data collected over the past six 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 the Marjorie Harris Carr Cross Florida Greenway with an estimated 35,227 annual visits (70% were hikers). The lowest use sites are Rice Creek WMA with 299 annual visits (100% hikers) and Etoniah State Forest with 379 annual visits (100% hikers).

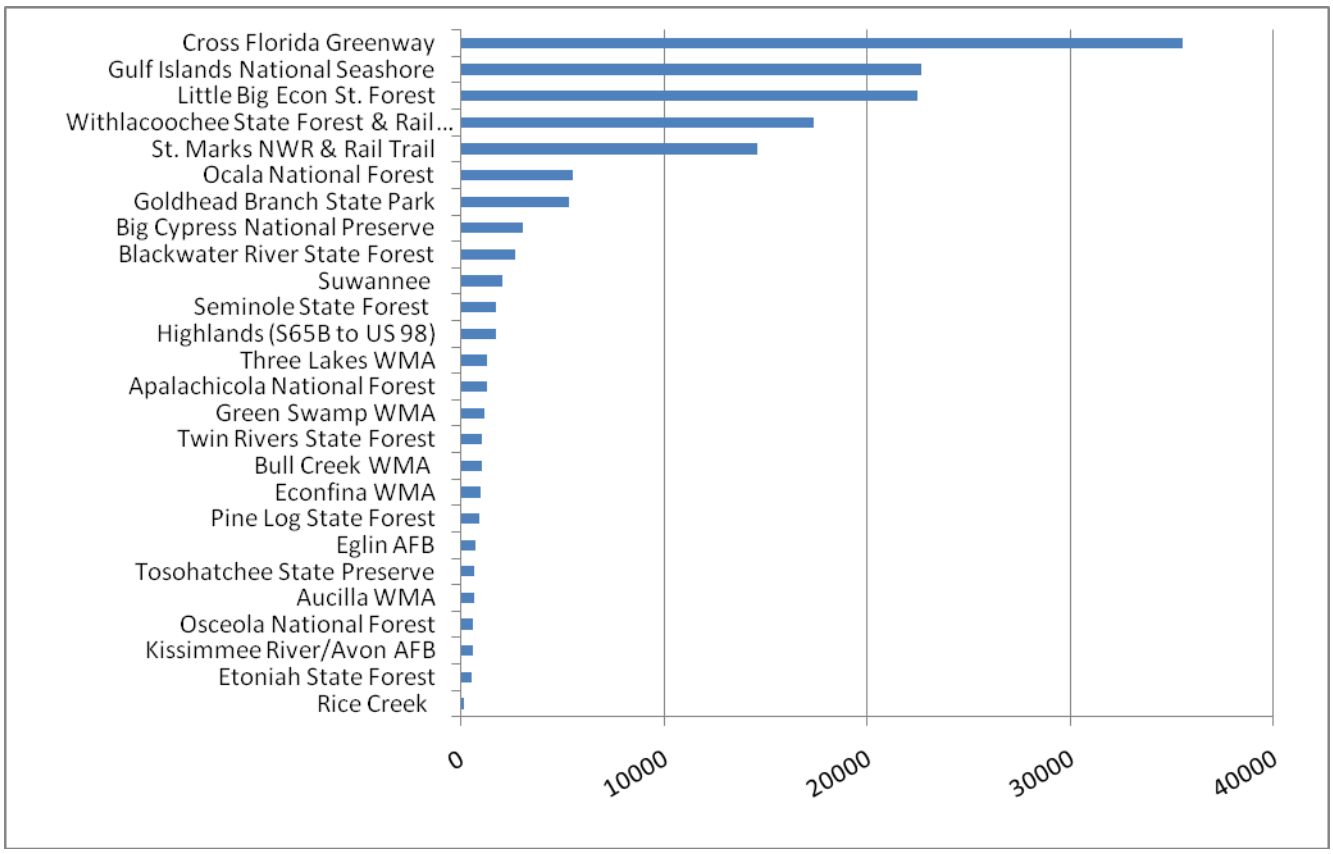

Figure 3. Comparison of Estimated Visitor Use on the Florida National Scenic Trail 2008-2009 in All Research Sites
Note**:** Lake Okeechobee is not included in the figure because of its very high use (203,970 annually)

On-Site Survey

Exit interviews were conducted at five 2008-2009 study sites: Cross Florida Greenway, Lake Okeechobee, Seminole State Forest, Little Big Econ State Forest, and Withlacoochee State Forest and Rail-Trail. A total of 297 people were approached to complete the interview of which 65 declined and 10 were incomplete equaling a total of 222 completed surveys for a 75% response rate. The largest percentage of surveys were completed at Cross Florida Greenway (27.4%), followed by Withlacoochee (25.7%), and Okeechobee (21.2%). The least amount of surveys was completed at Seminole State Forest (6.8%) (Figure 4).

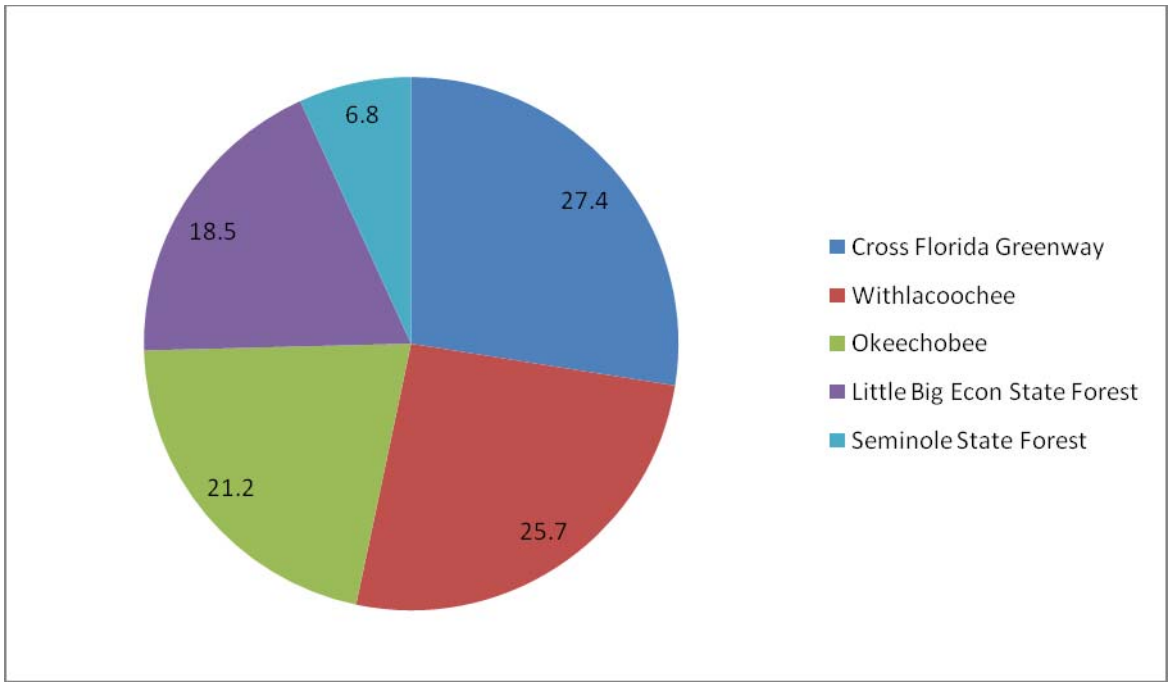

Figure 4. Distribution of Completed Surveys (n = 222)

Visitor Demographics

Visitors were more likely to be male than female (57.3%). They were mostly 40 years old or older (72.6%) and married (56.7%). Most had no children at home (68.0%). Most respondents were white (91.4%) and the single largest income bracket was $100,000 or more (16.0%) (Table 8).

A zip code analysis was performed to calculate approximate travel time between the respondent's home and area where they were contacted. The majority of respondents lived within 30 miles of the trail (81.9%). Distance traveled by visitors also varied by site with the Little Big Econ State Forest and the Lake Okeechobee sections receiving a higher percentage of visitors from further than 30 miles away. However, this difference was not statistically significant. Nearly 8% of visitors to the Trail were from outside of Florida (Table 9).

Table 8. Socio-Demographic Information

Statement	n	Response	Valid Percent (%)
Gender	225	Male	57.3
		Female	42.7
Age	213	60 years or older	35.0
		50 – 59 years old	17.4
		40 – 49 years old	20.2
		30 – 39 years old	10.3
		18 - 29 years old	16.4
Marital Status	224	Married	56.7
		Single	25.9
		Divorced	10.7
		Widowed	6.7
Children in household	222	0	68.0
		1	12.2
		2	12.6
		3	6.3
		4 or more	1.0
Highest level of education	222	Some high school or less	3.6
		High school graduate or GED	19.4
		Some college	22.5
		College graduate	27.5
		Some graduate school	6.8
		Graduate degree or beyond	20.3
Employment	221	Employed outside the home	53.3
		Unemployed	10.9
		Full-time homemaker	3.2
		Retired	29.9
		Full-time student	2.3
		Part-time student	0.5
Employed outside home	221	Full-time	44.3
		Part-time	9.0
Race or ethnic group	221	White	91.4
		Hispanic/Latino	4.5
		American Indian/Alaska Native	0.9
		African American	0.9
		Native Hawaiian/Pacific Islander	0.5
		Asian American	1.8
Household income	188	$9,999 or less	5.9
		$10,000-$19,999	4.3
		$20,000-$29,999	11.2
		$30,000-$39,999	10.6
		$40,000-$49,999	11.2
		$50,000-$59,999	9.0
		$60,000-$69,999	10.1
		$70,000-$79,999	9.6
		$80,000 -$89,999	8.5
		$90,000-$99,999	3.7
		$100,000 or more	16.0
Distance Traveled to Site	215	0 – 30 miles	86.5
		31 – 60 miles	5.6
		61 – 90 miles	0
		91 – 120 miles	0
		121 miles or more	0
		Out of state	7.9

Table 9. Comparison of Distance Traveled by Site

Site	Distance Traveled (Valid Percent %)					
	0-30 miles	31-60 miles	61-90 miles	9-120 miles	121 miles or more	out of state
Withlacoochee	87.0	3.7	0	0	0	9.3
Lake Okeechobee	73.3	11.1	0	0	0	15.6
Cross Florida Greenway	93.4	3.3	0	0	0	3.3
Little Big Econ	85.4	7.3	0	0	0	7.3
Seminole	100	0	0	0	0	0

$X^{2} =$ 101.78 p < .00 (n = 198)

The majority of those surveyed were repeat visitors to the Trail (78%). Among the different sites surveyed, 27.9% participants were most likely to have never visited the trailhead before at Little Big Econ State Forest, while no one at Seminole State Forest was a new visitor (Table 11). Of these repeat visitors, the most commonly reported number of times to that particular trailhead was 12 or more in the last year (41.3%). Most groups (55.9%) spent one hour or less at a time on the Trail and walked between one and five miles (68.5%) (Table 10).

Many of the participants learned about the trail from a friend or a family member (26.1%), while just over half (50.4%) learned about the trail by living nearby and seeing it. Guidebooks were reported to be the least likely source of obtaining knowledge about the trail (2.2%) (Table 10).

Table 10. Trip Characteristics & Knowledge

Statement	n	Label	Valid Percent (%)
First time on trail	232	Yes	21.6
		No	78.4
Past visits	143	None - 1	7.0
		2 – 6	40.6
		7 – 11	11.2
		12 or more	41.3
Time spent on trail	227	1 hour or less	55.9
		A few hours	30.0
		Half a day	8.8
		Whole day	0.4
		More than a day	4.8
Number of miles walked on trail	197	Less than a mile	9.6
		1 – 2 miles	34.5
		3 – 5 miles	34.0
		6 – 10 miles	16.2
		11 miles or more	5.6
Lean about trail	197	I live nearby and saw the trail	50.4
		Friends or Family	26.1
		Road Signs	7.4
		Website	6.1
		Other	4.8
		Newspaper article	3.9
		Don't Remember	3.5
		Brochure	3.0
		Guidebook	2.2

Table 11. Comparison of Past Visits by Site

Site	Past Visits (Valid Percent %)			
	None	1 – 6 times	7 – 12 times	13 or more
Withlacoochee	10.2	25.4	8.5	55.9
Lake Okeechobee	20.8	12.5	6.3	59.4
Cross Florida Greenway	15.6	39.1	9.4	36.0
Little Big Econ	27.9	39.5	4.7	27.9
Seminole	0	25.0	37.5	37.5

X^2 = 72.09 p <.000 (n = 198)

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 (77.5%). Viewing scenery (39.3%) and nature study (14.0%) were often cited as secondary or tertiary activities (Table 12).

Table 12. Activities Participated

Statement	n	Activity	Valid Percent %
Primary Activity	231	Hiking/Walking	77.5
		Jogging/Running	3.5
		Biking	3.5
		View Scenery	3.0
		Fishing	2.6
Secondary Activity	219	View Scenery	39.3
		Bird Watching	11.0
		Photography	8.7
		Hiking/Walking	6.8
		Nature Study	6.4
Tertiary Activity	200	View Scenery	19.0
		Nature Study	14.0
		Bird Watching	12.0
		Photography	11.5
		Biking	9.0

Most visitors (81.3%) on the FNST traveled alone or with one other person. Most groups (64.1%) had at least one male. Other than people who traveled alone, family groups were the most common type encountered along the Trail (40.3%) (Table 13).

Table 13. Group Characteristics

Statement	n	Label	Valid Percent %
Group Size	178	1	37.4
		2	43.9
		3	7.0
		4	4.3
		5 or more	7.4
Number of Males	220	0	14.5
		1	64.1
		2	14.1
		3	2.3
		4 or more	5.0
Number of Females	205	0	30.7
		1	51.2
		2	12.2
		3	2.9
		4 or more	3.0
Group Type	196	Family	40.3
		Alone	37.2
		Friends	14.6
		Other	3.1
		Friends and family	1.8
		Organized group	1.8

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 (87.4%) had a perfect or near perfect experience (a rating of 8, 9, or 10). When asked why their visit was not perfect, respondents mentioned lack of wildlife (3.1%), litter (3.4%), inadequate maintenance (3.6%) or the heat or other weather related issues (5.1%) as common reasons. Visitors to the Lake Okeechobee section of the FNST frequently mentioned a lack of shade trees as the reason for their less than perfect experience. (Table 14).

Next, all visitors were asked if there were any improvements they would like to see to the trail. Many suggested improved or additional facilities (23.8%) such as trash bins, water fountains, and bathrooms. Several hikers (10.1%) also mentioned having trouble staying on the trail and suggested better blazes and signage for the trail. Some of the "other" suggestions were for less visible management presence and better security. (Table 14).

Table 14. Trail Experience

Statement	n	Label	Valid Percentage (%)
Experience/Satisfaction	231	10	46.8
		9	19.0
		8	21.6
		7	7.8
		6	0.8
		5 or less	3.9
Reasons not a Ten	88	Weather	5.1
		Lack of desired facilities/Maintenance	3.6
		Litter	3.4
		Not enough wildlife	3.1
		Not well marked	2.8
		Not enough shade	2.4
		No terrain/ not challenging enough	2.4
		Cyclists	2.2
		Other	25.0
Suggested Improvements	168	No improvements	37.5
		Improved or additional facilities desired	23.8
		Improved trail blazing and/or trail signage	10.1
		Improved trail maintenance	9.5
		Trail modifications desired	7.7
		Improved maps and information handouts	1.8
		Other	9.6

Motivations and Destination Attractors

Motivations can be conceptualized as the needs or wants that the visitor wishes to fulfill during his or her recreation visit. Participants were presented with a list of 16 possible motivations for visiting 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 at all important and three indicating important. Enjoying nature (mean = 2.96) was reported to be the most important motivation for visiting the Trail that day followed closely by reduce stress and tension of everyday life (mean = 2.90), and to escape noise and crowds (mean = 2.88). To learn about the history and culture of the area was reported as the least important motivation for visiting the Trail that day (mean = 1.91) along with to take risks (mean = 1.97) and meet new people (mean = 2.14) (Table 15).

Table 15. Motivations

Motivation	n	Not Important (%)	Neutral (%)	Most Important (%)	Mean[1]	SD[2]
Enjoy nature	222	0.5	3.6	95.9	2.96	0.23
Reduce Tensions and Stress from everyday life	221	1.8	6.8	91.4	2.90	0.36
Escape noise/crowds	214	2.3	7.0	90.7	2.88	0.39
Explore the area and the natural environment	215	3.3	7.4	89.3	2.86	0.43
Promote physical fitness	223	3.2	9.5	87.4	2.84	0.44
Be in an area where I feel safe and secure	216	6.9	14.8	78.2	2.71	0.59
Learn about the natural environment of the area	212	8.0	16.0	75.9	2.68	0.62
Feel a sense of independence	213	6.1	23.0	70.9	2.65	0.59
Be with friends and family	215	12.1	15.3	72.6	2.60	0.70
Challenge myself and achieve personal goals	214	9.8	24.8	65.4	2.56	0.67
Engage in personal/spiritual reflection	213	12.7	21.1	66.2	2.54	0.71
Strengthen family kinship	213	12.7	25.8	61.5	2.49	0.71
Depend on my skills and abilities	213	12.7	26.8	60.6	2.48	0.71
Meet new people	215	25.1	35.8	39.1	2.14	0.79
Take risks	212	34.0	35.4	30.7	1.97	0.81
Learn about the history and culture of the area	209	41.6	25.8	32.5	1.91	0.86

[1] 1 = not important 2 = neutral 3 = most 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 a chance to see wildlife and birds (mean = 2.88), experience undisturbed nature (2.85), and experience a good quality of environmental air, water, and soil (2.82). Few hikers were attracted to a recreation area based on the area's ability to provide good opportunities for hunting (mean = 1.43), seeing local crafts (1.56), or fishing (1.71) (Table 16).

Table 16. Destination Attractors

Reasons for Visit	n	Disagree (%)	Neutral (%)	Agree (%)	Mean[1]	Standard Deviation
Chance to see wildlife/birds	220	3.6	5.0	91.4	2.88	0.43
Wilderness and undisturbed nature	221	5.0	5.4	89.6	2.85	0.48
Good environmental quality of air, water, and soil	219	5.0	7.8	87.2	2.82	0.50
To see the natural water features	218	6.9	12.4	80.8	2.74	0.58
The park/trail is close to where I live	225	15.6	11.6	72.9	2.57	0.75
Manageable size to see everything	214	15.4	28.5	56.1	2.41	0.74
Interesting small towns	217	38.2	21.7	40.1	2.02	0.89
Availability of campgrounds	216	46.3	23.6	30.1	1.84	0.86
History, military or archeological sites	217	48.8	23.5	27.6	1.79	0.85
Good fishing	214	54.2	21.0	24.8	1.71	0.84
Local crafts or handiwork	212	58.5	26.9	14.6	1.56	0.74
Good hunting	213	68.1	21.1	10.8	1.43	0.68

[1] 1 = not important 2 = neutral 3 = most important

In addition, the respondents were asked about specific site characteristics that reflected the physical, social, and trail design characteristics that they may find along the FNST. Respondents were presented with twelve characteristics and were asked to rate the extent to which they preferred each setting characteristics while participating in their primary chosen activity for the day. Preferences were rated on a scale of one to five, and then collapsed to a three point scale with one represented disagreement and three representing agreement with the preferred setting. Respondents reported that they preferred dirt or grass trails (mean = 2.65) and areas that have been modified but appear natural (mean = 2.50). They did not like recreating in areas dominated with roads and power lines (mean = 1.30) or areas where a lot of people were present (mean = 1.58 for constant contact and 1.79 for contact with more than thirty people) (Table 17).

Table 17. Preferred Trail Settings

Trail Setting	n	Disagree (%)	Neutral (%)	Agree (%)	Mean[1]	Standard Deviation
Travel on dirt or grass	219	8.7	17.4	74.0	2.65	0.63
Traveling in an area that has been modified but appears natural	216	10.7	29.2	60.2	2.50	0.68
Prefer loop trails	213	10.8	28.6	60.6	2.50	0.68
Traveling in an area untouched by humans	214	18.6	22.0	59.4	2.41	0.79
Desire to have little contact: 6 or less	212	13.2	36.3	50.5	2.37	0.71
Traveling in an area that is both human-made and natural	213	24	33.8	42.3	2.18	0.79
Desire to have moderate contact: 6-15 groups	209	21.5	46.4	32.0	2.11	0.73
Travel on paved	214	35.0	24.8	40.2	2.05	0.87
Prefer linear trails	211	29.8	39.3	30.8	2.01	0.78
Desire to have a lot of contact: 30 plus groups	207	36.7	47.3	15.9	1.79	0.70
Desire to have constant contact	210	54.3	33.3	12.3	1.58	0.70
Traveling in an area that is dominated by roads and power lines	213	78.4	13.1	8.4	1.30	0.62

[1] 1 = disagree 2 = neutral 3 = agree

Finally, the respondents were asked questions to better understand their "subjective, emotional, and symbolic meanings" associated with the FNST (Williams & Vaske, 2003, p. 1). To measure these personal perceptions, respondents were presented with twenty statements from the place attachment literature. They were asked to rate the extent to which they agreed with each statement. The extent to which they agreed was rated on a scale of one to five, and then collapsed to a three point scale with one representing disagreement and three representing agreement with the statement. Most respondents believed the FNST was important for providing wildlife habitat (mean = 2.89), protecting the landscape from development (mean = 2.87), and protecting water quality (2.71). Visitors were most likely to be neutral about other trails being able to compare to FNST (mean = 2.15) or other trails to be substituted for the FNST (mean = 1.97) (Table 18).

Table 18. Place Attachments

Statement	n	Disagree (%)	Neutral (%)	Agree (%)	Mean[1]	SD[2]
This trail is important for providing habitat for wildlife	218	2.3	6.4	91.3	2.89	0.38
This trail is important in protecting the landscape from development	216	1.9	9.3	88.9	2.87	0.39
This trail is important in protecting water quality	216	4.6	19.9	75.5	2.71	0.55
This trail contributes to the character of my community	216	9.3	14.4	76.4	2.67	0.64
This trail is the best for what I like to do	215	7.9	18.6	73.5	2.66	0.62
Few people know this trail like I do	215	47.4	30.2	22.3	1.75	0.80
This trail is a special place for my family	214	24.3	26.6	49.1	2.25	0.82
Many important family memories are tied to this trail	211	41.2	33.6	25.1	1.84	0.80
This trail means a lot to me	217	10.1	25.3	64.5	2.54	0.67
What I do at this trail I would enjoy just as much at a similar trail	214	10.7	25.6	63.7	2.53	0.68
I am very attached to this trail	214	10.7	26.2	63.1	2.52	0.68
This trail is very special to me	213	12.2	29.1	58.7	2.46	0.70
I identify strongly with this trail	214	11.7	30.8	57.5	2.46	0.70
Visiting this trail says a lot about who I am	215	11.2	34.0	54.9	2.44	0.70
I get more satisfaction out of visiting this trail than any other	211	16.6	37.4	46.0	2.29	0.74
I feel this trail is a part of me	214	19.2	33.2	47.7	2.29	0.77
My community's history is strongly tied to this trail	210	20.0	35.7	44.3	2.24	0.77
No other trail can compare to this trail	214	22.0	40.7	37.4	2.15	0.76
What I do at this trail is more important to me than doing it in any other place	214	23.8	47.2	29.0	2.05	0.73
I wouldn't substitute any other trail for doing the types of things I do	215	29.8	43.3	27.0	1.97	0.75

[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 2008-2009 study year has the highest estimated visits to the Florida Trail. There were just 64 more estimated visits to the FNST in 2008-2009 compared to the previous study year. Since all study sites have now been researched at least once, and those sites affected by hurricane during 2004-2005 study season have been studied twice, it is reasonable to say that this year's estimate is an accurate reflection of the approximate number of Florida Trail users. The visitation during 2008-2009 suggests a stable use trend for FNST visitation in spite of the economic hard time for the nation. At some sites, such as those in Ocala National Forest, the visitations show increases in both summer and fall/spring. A possible explanation is that people opted for close-to-home sites for their recreation needs in the economic downturns instead of long vacations otherwise.

Researchers collected visitor counts on the FNST using observations and infrared eyes. The continued 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 have been relatively reliable and consistent over the past four study years. However, the counters start to show instability on the performance which in turn adds the difficulty to analyze data. This suggests a 4-year life cycle for most Diamond counters. Three new TrailMaster 1550 units purchased in spring 2008 have been a helpful supplement through the 2007-2008 and 2008-2009 study years for the losses due to vandalism and robbery. However, the increasing number of mechanical failures demands more replacements in foreseeable future. The average life span for TrailMaster counters seems to be about 3-4 years.

Visitor Surveys

Collecting visitor surveys helps to complete the process of assessing the visitors of the FNST and the outcomes of their recreation. Visitors reported being motivated to visit the trail to experience nature, reduce tensions, and escape crowds. Given that most visitors are repeat users of the Trail, we can infer that the Trail offers the kind of quiet, natural settings its visitors are looking for to achieve these positive experiences. This is an interesting finding because about half of the surveys were conducted on sections of the Trail that are paved and mostly linear and surrounded by obvious human development. Indeed about 60% of visitors reported that they prefer settings that have been modified by humans but still appear natural. This indicates that managers can develop different portions of the Trail to varying degrees and still provide the immersion in nature and sense of seclusion visitors like.

Physical fitness was also rated high amongst desired positive outcomes sought by visitors to the Trail this year. Almost 90% of visitors rated this as an important motivation for being on the Trail. This matches up well with the users' trip characteristics which were typically frequent and brief. This is potentially valuable information for managers who are contemplating instituting a fee for use. An annual pass may make sense as an option for these visitors who simply desire a quick escape with some physical activity.

This year, researchers returned to Lake Okeechobee to update the previous assessment of visitors there as more of the Trail around the Lake has been paved over the last four years and new parks and recreation areas have been erected or further developed around it. Visitors stated that one of their key motivations for recreating there was to be in a place where they felt safe and secure. This may help explain why these people who are motivated by a desire to escape crowds come to the single busiest portion of the FNST; because seeing some people can create a sense of safety which may be absent from remote, wooded sections of the Trail. Furthermore, the

proportion of visitors from out of state increased from 5.7% in 2005 to 15.6% in 2009. With an estimated 200,000 visitors each year, this means roughly 30,000 people from out of state visited the Trail around the Lake making it a significant tourist attraction for the area.

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.

APPENDIX I: 6 Year Study Schedule

2003-2004

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

2004-2005

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

2005-2006

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

2006-2007

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

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

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 as well as 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 2008-2009

Monitored Access Points (2008-2009)

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. 49th 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

Etoniah State Forest
1. Longleaf/Tinsely

Little Big Econ State Forest
1. Lockwood

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: 2008-2009 Counter Locations

2008-2009 Counter Locations

Apalachicola National Forest
- Camel Lake: Counter located ¼ mile east of where FT crosses FR 105 near the campground.
- Sopchoppy: Heading east from FR 329, counter located about 200 feet from road

Big Cypress
- Oasis South: Counter located about ¼ 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 ¼ mile in on the FT section going east from the Juniper access road.
- Clearwater Recreation Area: From parking area take the blue-spur trail to the FT (about ¼ mile). Go left on the FT for about 115 paces.
- 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 ¼ mile past Loop A Trail. Counter installed on FT, 100 feet past Loop A Trail.

Rice Creek Management Area
- Bridges: From the picnic area, walk about ¼ mile towards west on the FT.

Seminole State Forest
- SR 46: Counter located about ¼ mile from the kiosk on the right side of recreation area entrance.

St. Mark NWR
- Medart East: From gate 305 on US 98, drive through about 1.5 mile turn left on road 304 then continuing for about 1.5 mile. Counter located on the right side of the road on the FT.

Suwannee Segment
- Withlacoochee River South Bank: From the Kiosk at Drew Way, walk on the FT crossing the rail road about 5/8 mile. Counter located on the left side of FT.

APPENDIX VI: 2008-2009 Seasonal Calibration Factors

Table 19. 2008-2009 Calibration Factors

	Sites	*June*	*July*	*Aug*	*Sep*	*Oct*	*Nov*	*Dec*	*Jan*	*Feb*	*March*	*April*	*May*
Big Cypress	Oasis South	1	1	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99	0.99
	Oasis North	1	1	1	1	1	1	1	1	1	1	1	1
Cross Florida Greenway	Land Bridge	1	1	1	1	1	1	1	1	1	1	1	1
	Rodman East	1	1	1	1	1	1	1	1	1	1	1	1
	Rodman West	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
	Santos	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84	0.84
Rice Creek	Bridges	1	1	1	1	1	1	1	1	1	1	1	1
Seminole State Forest	SR 46	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.986	0.99	0.986	0.986
St. Marks NWR	Medart East	1	1	1	1	1	1	1	1	1	1	1	1
Suwannee Segment	Withlacoochee River South Bank	1	1	1	1	1	1	1	1	1	1	1	1
Ocala National Forest	Clearwater RA	1	1	1	1	1	1	1	1	1	1	1	1
	Juniper RA	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04	1.04
	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 National Forest	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
ANF	Camel Lake	1	1	1	1	1	1	1	1	1	1	1	1
	Sopchoppy	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98

1 = Months where data were missing so AP averages from previous study years were used.

APPENDIX VII: On-Site Survey

To be completed by surveyor if interview given on-site:
Surveyor: _____ Date: _____
Site: _____ Time: _____
Access Point: _____

1. Was this your first time on this particular trail? ___No ____ Yes (Go to question 3)

2. Over the past year, how many times have you used this trail?

   ___None ___13-20 times
   ___1-6 times ___21-30 times
   ___ 7-12 times ___ more then 30 (#___)

3. About how long did you spend on the **trail** today?

   ____1hour or less ____Half a day ____More than 1 day (_____number of days)
   ____A few hours ____One whole day

4. If you spent more then one day in the area, where did you stay overnight?

   [] At a nearby hotel/condo
   [] At a campground off the trail
   [] In an established campground along the trail
   [] In a nearby residence of friends or family

5. On this **trip**, about how many miles did you travel on the trail today (on this trip is a multi-day trip)?

   [] Less than a mile [] 3-5 miles [] More than 10 miles (# of miles _____)
   [] 1-2 miles [] 5-10 miles

6. On a scale of 1 to 10, with 10 being the perfect experience, how would you rate your experience on this trail?
   _____

7. If you did not rate your trail experience as a 10, can you explain why not?
   _____
   ___

8. Are there any other improvements you would like to see on the trail?
   _____

   _____
   ____

9. ***Hand the participant the activity card. Ask:*** From this list of activities, please rank the 3 activities that best describe the reason you visited the trail today?

   1st_____ 2nd_____ 3rd_____

10. Including yourself, how many people were with you?
    _____number of people (___#males, ___#females)

11. What type of group are you traveling with?_____

12. How did you first learn about this trail? (check all that apply)
    [] Friends or Family [] Roadside Signs [] Magazine, please specify

[] I live nearby & saw the trail [] Guidebook [] Website
[] Brochure [] Newspaper Article [] Don't remember, not sure
[] Other, please specify _____

13. Please indicate how important each of the following items was in choosing your leisure destination for this trip.

Reason for Visit	Not at all important	Not very Important	Neutral	Very Imp ortant	Most Important
Historical, military, or archeological sites	1	2	3	4	5
Local crafts or handiwork	1	2	3	4	5
Interesting small towns	1	2	3	4	5
Good fishing	1	2	3	4	5
Good hunting	1	2	3	4	5
Manageable size to see everything	1	2	3	4	5
Wilderness and undisturbed nature	1	2	3	4	5
Chance to see wildlife/birds	1	2	3	4	5
To see the natural water features	1	2	3	4	5
Good environmental quality of air, water, and soil	1	2	3	4	5
Availability of campgrounds	1	2	3	4	5
The park/trail is close to where I live	1	2	3	4	5

14. People go to particular areas and participate in recreation activities for any number of reasons. Listed below are some possible reasons you might have had for recreating along the trail today. Please indicate how important each experience was for you during your visit.

Reasons for Visiting Today	Not at all important	Not very important	Neither	Very Important	Most Important
Learn about history and culture of the area	1	2	3	4	5
Promote physical fitness	1	2	3	4	5
Reduce tensions and stress from everyday life	1	2	3	4	5
Escape noise/crowds	1	2	3	4	5
Learn about the natural environment of the area	1	2	3	4	5
Be with friends and family	1	2	3	4	5
Feel a sense of independence	1	2	3	4	5
Take risks	1	2	3	4	5
Engage in personal/spiritual reflection	1	2	3	4	5
Explore the area and natural environment	1	2	3	4	5
Challenge myself and achieve personal goals	1	2	3	4	5
Depend on my skills and abilities	1	2	3	4	5
Enjoy nature	1	2	3	4	5
Strengthen family kinship	1	2	3	4	5
Be in an area where I feel secure and safe	1	2	3	4	5
Meet new people	1	2	3	4	5

15. When participating in the **activity** you listed as your **primary activity** do you generally prefer….

Physical, Social & Trail Setting Preferences	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
To travel on trails that are natural; dirt or grass	1	2	3	4	5
To travel on trails that are paved	1	2	3	4	5
To travel on trails that are linear	1	2	3	4	5
To travel on loop trails	1	2	3	4	5
Very little contact outside my own group (less than 6 people)	1	2	3	4	5
Little contact outside my own group (7-15 people)	1	2	3	4	5
Moderate contact outside my own group (15-30 people)	1	2	3	4	5
Constant contact with others outside my own group	1	2	3	4	5
To travel in areas untouched by man	1	2	3	4	5
To travel in areas that have been modified but appears natural	1	2	3	4	5
To travel in areas that appear to be man-made and natural	1	2	3	4	5
To travel in more developed areas where roads & powerlines dominate	1	2	3	4	5

16. Please indicate to what extent you agree or disagree with each of the following statements **about this trail**

Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
Few people know this trail like I do	1	2	3	4	5
This trail is a special place for my family	1	2	3	4	5
Many important family memories are tied to this trail	1	2	3	4	5
This trail contributes to the character of my community	1	2	3	4	5
My community's history is strongly tied to this trail	1	2	3	4	5
This trail is important in protecting the landscape from development	1	2	3	4	5
This trail is important for providing habitat for wildlife	1	2	3	4	5
This trail is important in protecting water quality	1	2	3	4	5
I am very attached to this trail	1	2	3	4	5
No other trail can compare to this trail	1	2	3	4	5
This trail means a lot to me	1	2	3	4	5
I feel this trail is a part of me	1	2	3	4	5
Visiting this trail says a lot about who I am	1	2	3	4	5
This trail is very special to me	1	2	3	4	5
I identify strongly with this trail	1	2	3	4	5
This trail is the best for what I like to do	1	2	3	4	5
I get more satisfaction out of visiting this trail then any other	1	2	3	4	5
What I do at this trail I would enjoy just as much at a similar trail	1	2	3	4	5
What I do at this trail is more important to me than doing it in any other place.	1	2	3	4	5
I wouldn't substitute any other trail for doing the types of things I do	1	2	3	4	5

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.

17. I am

[] Male [] Female

18. Which of the following best describes your status?

[] Married [] Divorced
[] Single [] Widowed

19. How many children currently reside in your household? _____

20. What is the highest level of education you have completed? (please mark one)

[] Eighth grade or less [] College Graduate
[] Some High School [] Some Graduate School
[] High School Graduate or GED [] Graduate Degree or beyond
[] Some College

21. Are you presently…

[] Employed Full Time
[] Employed Part Time
[] Unemployed
[] Full Time Homemaker
[] Retired
[] Full Time Student
[] Part Time Student

22. What year were you born? _____

23. What race or ethnic group(s) would you place yourself in? Please mark all that apply.

[] African American [] Hispanic or Latino
[] Native Hawaiian or Pacific Islander [] American Indian or Alaskan Native
[] Asian American [] White

24. What was your approximate total household income, before taxes this past year?

[] Less the $10,000 [] $60,000 to $69,999
[] $10,001 to $19,999 [] $70,000 to $79,999
[] $20,000 to $29,999 [] $80,000 to $89,999
[] $30,000 to $39,999 [] $90,000 to $99,999
[] $40,000 to $49,999 [] $100,000 or More
[] $50,000 to $59,999

25. Zip Code: _____

THANK YOU FOR COMPLETEING
OUR SURVEY!!!!!!

APPENDIX IX: Individual Site Information

Cross Florida Greenway
(n = 66)

Visitor Survey Data

Surveys were conducted at the following areas:
- Land Bridge (n = 34)
- Santos (n = 32)

Socio-Demographics
56% of respondents were male
64% of respondents were married
53% of respondents had at least a college degree
40% of respondents worked outside the home
34% of respondents were 60 years old or older
94% of respondents were white
42% of respondents reported an annual household income of between $20,000 and 49,000
93% of respondents lived within 30 miles of the trail

Trip Characteristics
85% of visitors have been to the site before
39% of visitors had visited the trail 1-6 times in the past year
50% of visitors spend an hour or less on the trail
38% of visitors hike/walk 3-5 miles during their visit
42% of visitors report a 10 out of 10 for their experience that day
67% of visitors stated that hiking/walking was their primary activity
36% of visitors stated that viewing scenery was their secondary activity
50% of visitors came in groups of two people

Motivations (1= not important, 2= neutral, 3= most important)

Escape noise and crowds	mean = 2.97
Reduce stress and tensions from everyday life	mean = 2.95
Enjoy nature	mean = 2.93

Destination Attractors & Settings (1= not important, 2= neutral, 3= most important)

A chance to see wildlife/birds	mean = 2.91
Wilderness and undisturbed nature	mean = 2.90
Good environmental quality of air, water, and soil	mean = 2.88
Travel on dirt/grass trails	mean = 2.93
Travel along loop trails	mean = 2.71
To travel in areas that have been modified but appear natural	mean = 2.54

Place Attachment (1= disagree, 2= neutral, 3= agree)

This trail is best for what I like to do	mean = 2.81
This trail is important for providing habitat for wildlife	mean = 2.93
This trail is important in protecting the landscape from development	mean = 2.92

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:

- Counter at Santos have been performing inconsistently. Since this counter is belonging to CFG, we only recommended CFG to replace the counter.

Trail conditions throughout the year:

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

Table 20. FNST Visitation at the CFG 2008-2009

Access Pt.	June	July	Aug.	Sept	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Rodman East	79	28	108	13	39	56	71	56	42	61	116	102	767
Rodman West	10	7	22	17	20	9	16	21	33	38	24	10	226
Santos	114	119	185	165	312	322	270	244	310	310	238	209	2,798
Landbridge (475A)	159	134	204	182	296	361	302	377	379	366	315	216	3,290
Baseline/ 64th St. [a]													24,554
Ross Prairie*	12	7	11	5	23	30	30	38	42	41	29	21	287
Buckman Lock*	12	7	11	5	10	13	8	16	9	15	11	5	119
Marshall Swamp*	12	7	11	5	10	13	8	16	9	15	11	5	119
49th Ave.*	189	149	152	212	142	268	244	288	286	348	242	263	2,781
Pruitt*	12	7	11	5	23	30	30	38	42	41	29	21	287
Monthly Total	598	464	715	608	874	1,102	979	1,093	1,152	1,234	1,015	851	35,228

[a] Access Point is multiple use (Foot traffic = 14,089; Other traffic =10,465)

*Estimation calculated through access point averages (Appendix II)

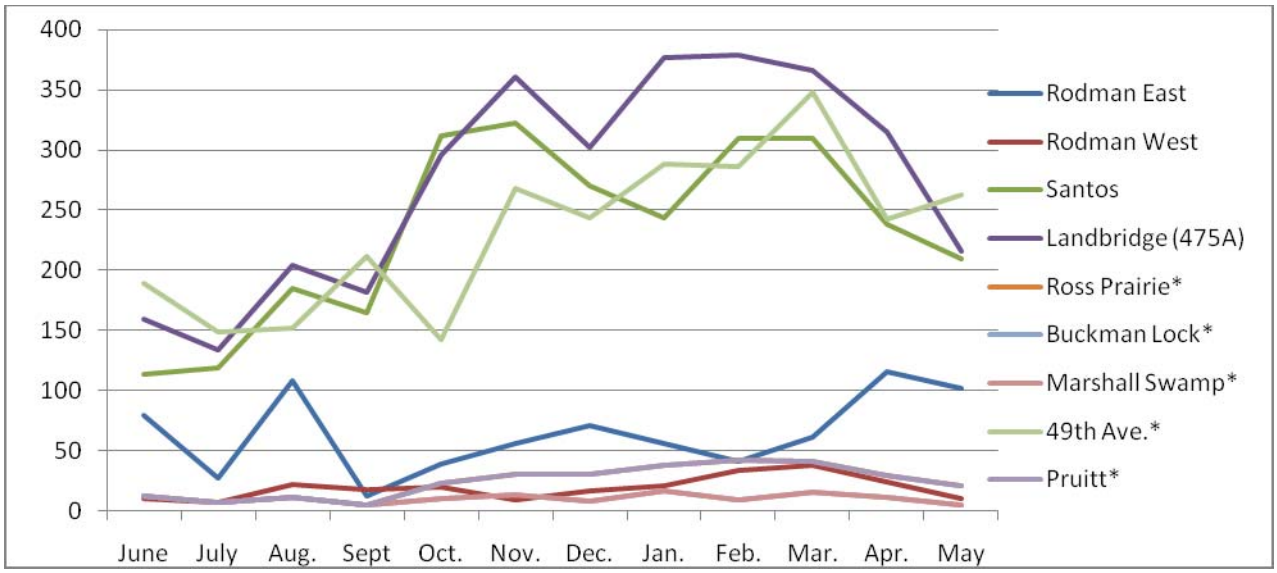

Figure 5. FNST Visitation at the CFG 2008-2009
*Estimate calculated from access point averages (Appendix II)

2003-2009 Use Estimates

A comparison of data collected from 2003-2009 shows that highest use year was the 2007-2008 study season with 35,562 estimated FNST visits.

Table 21. Comparison of FNST Visitation at CFG 2006-2009

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

* Totals include Baseline/64th St. estimates

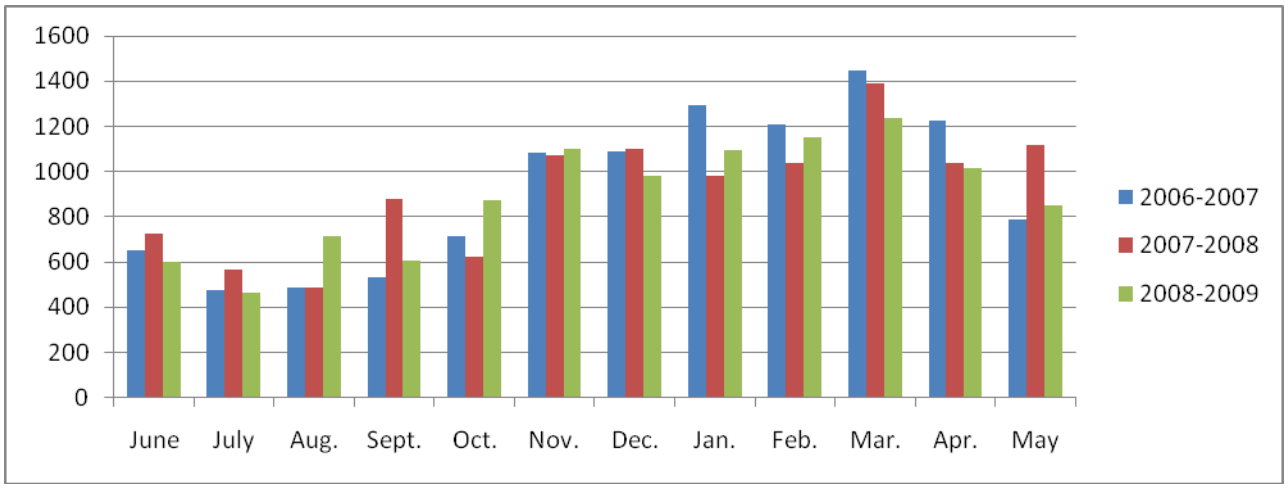

Figure 6. Comparison of FNST Visitation at CFG 2006-2009

Ocala National Forest

Visitor Counter Data

Counter Type:

- Juniper Recreation Area: Diamond Traffics Eye
- Clearwater Recreation Area: Trail Master Eye
- Lake Delancy: Trail Master 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:

- Clearwater Recreation Area: the unit (Trail Master) was found to be stolen in January 2009 again and cancelled since then. The data below was from previous study year.
- SR19: the unit was found not functioning in September 2008 and March 2009. The counter was immediately replaced.
- Lake Delancy: Transmitter was found not functioning in May 2009 and replaced immediately.

Trail conditions throughout the year:

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

Table 22. FNST Visitation at the Ocala National Forest 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Juniper Rec.	39	22	148	56	75	205	280	381	280	83	88	67	1,724
Clearwater	35	77	12	29	19	17	17	21	135	164	121	56	703
SR 19	91	91	78	81	75	110	144	214	199	136	66	98	1,383
Lake Delancy	4	2	5	4	6	26	14	33	62	18	29	23	226
Juniper Wilderness*	12	7	11	5	52	53	68	68	84	102	85	64	611
Alexander Springs*	12	7	11	5	23	30	30	38	42	41	29	21	289
Grassy Pond*	12	7	11	5	23	30	30	38	42	41	29	21	289
Buck Lake*	12	7	11	5	23	30	30	38	42	41	29	21	289
Hopkins Prairie*	12	7	11	5	23	30	30	38	42	41	29	21	289
TOTAL	229	227	298	195	319	531	643	869	928	667	505	392	5,803

*Estimation calculated through access point averages (Appendix II)

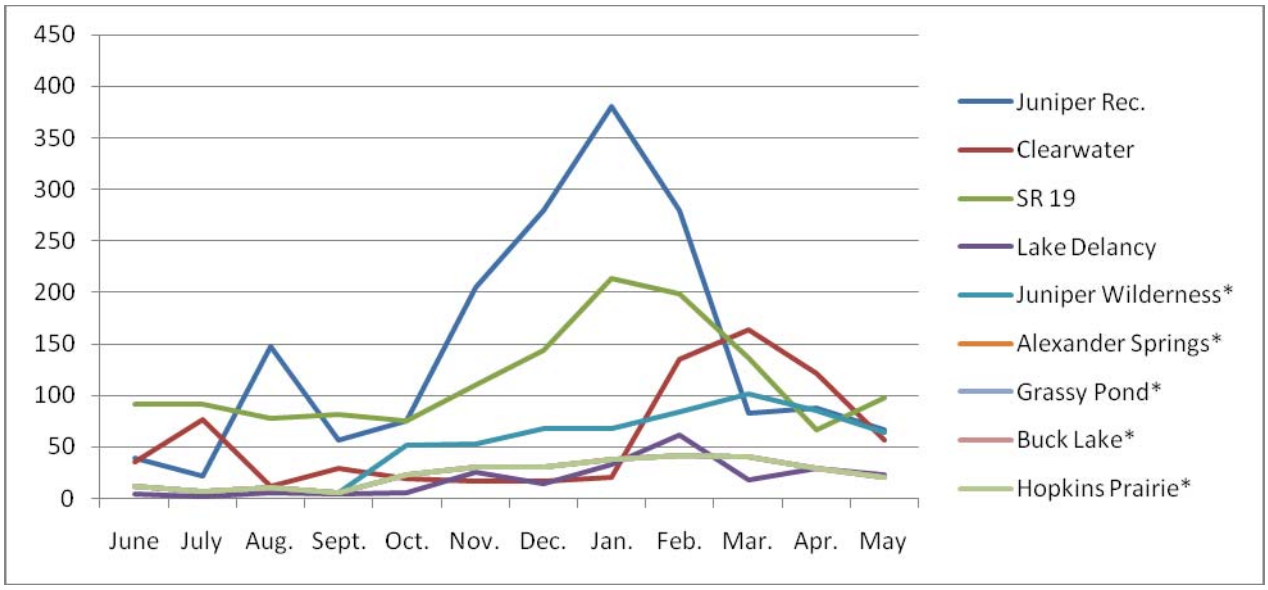

Figure 7. FNST Visitation at Ocala National Forest 2008-2009
*Estimation calculated through access point averages (Appendix II)

2003-2009 Use Estimates

A comparison of data collected from 2003-2009 shows that highest use year was the 2006-2007 study season with 6,481 estimated FNST visits.

Table 23. Comparison of FNST Visitation at Ocal National Forest 2003-2009

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

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

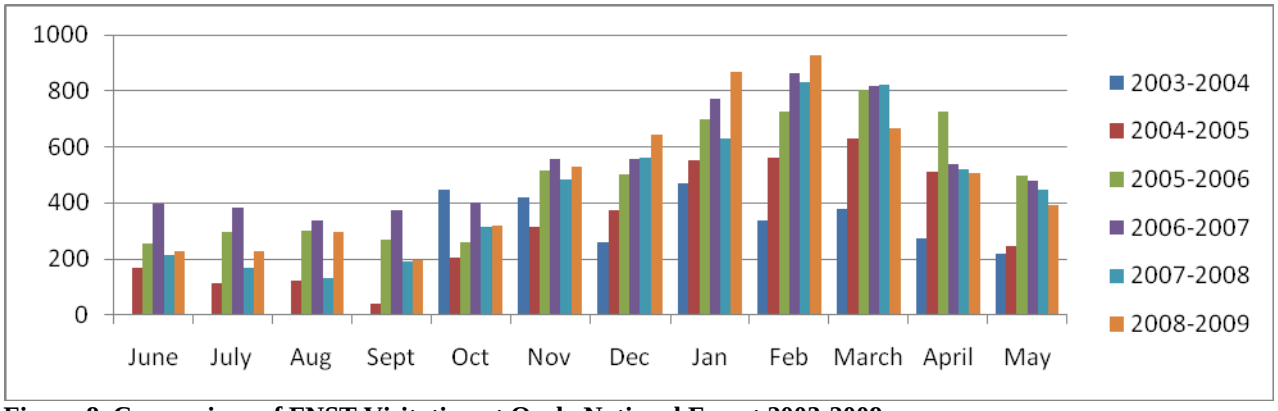

Figure 8. Comparison of FNST Visitation at Ocala National Forest 2003-2009

Seminole State Forest
(n = 15)

Visitor Survey Data

Surveys were conducted at the following areas:
- SR 46 access point

Socio-Demographics
80% of respondents were male
73% of respondents were married
67% of respondents had at least a college degree
60% of respondents worked outside the home
27% of respondents were between 40 and 49
7% of respondents were Asian
47% of respondents reported an annual household income of $100,000
100% of respondents lived within 30 miles of the trail

Trip Characteristics
53% of visitors have been to the site before
38% of visitors had visited the trail 7-12 times in the past year
43% of visitors spend an hour or less on the trail
40% of visitors hike/walk 3-5 miles during their visit
40% of visitors report a 10 out of 10 for their experience that day
93% of visitors stated that hiking/walking was their primary activity
27% of visitors stated that nature study was their secondary activity
53% of visitors visited the trail alone

Motivations (1= not important, 2= neutral, 3= most important)

Explore the area and natural environment	mean = 3.00
Enjoy nature	mean = 3.00
Reduce tensions and stress from everyday life	mean = 2.93

Destination Attractors & Settings (1= not important, 2= neutral, 3= most important)

A chance to see wildlife/birds	mean = 3.00
Wilderness and undisturbed areas	mean = 2.93
Good environmental quality of air, water, and soil	mean = 2.86
Travel on dirt/grass trails	mean = 2.93
Travel along loop trails	mean = 2.53
Encounter 6 or fewer groups/day	mean = 2.53

Place Attachment (1= disagree, 2= neutral, 3= agree)

This trail is important for protecting habitat for wildlife	mean= 3.00
This trail is important in protecting water quality	mean= 2.80
This trail is important in protecting the landscape from development	mean= 2.67

Visitor Counter Data

Counter type:
- SR46: Diamond Traffics Eye

Counter related problems and solutions:

- The counter performed flawlessly throughout the study year.

Trail conditions throughout the year:

- Trail condition was excellent throughout the entire year.

Table 24. FNST Visitation at Seminole State Forest 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
SR 44*	15	5	12	0	0	0	15	22	60	47	23	18	217
SR 46	53	51	59	57	76	133	101	177	230	184	151	106	1,376
Monthly Total	68	56	71	57	76	133	116	199	290	231	174	124	1,593

*Data collected during the 2004-2005 year

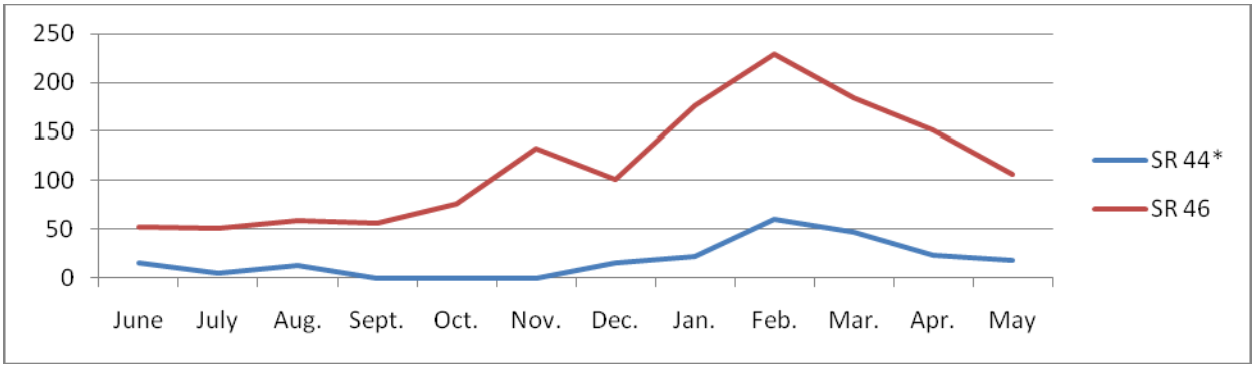

Figure 9. FNST Visitation at Seminole State Forest 2008-2009
*Data collected during the 2004-2005 study season

2004-2009 Use Estimates

A comparison of data collected from 2004-2009 shows that highest use year was the 2008-2009 study season with 1,593 estimated FNST visits.

Table 25. Comparison of FNST Visitation at Seminole State Forest 2004-2009

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2004-2005	77	64	71	0	0	0	54	92	112	128	123	144	865
2008-2009	68	56	71	57	76	133	116	199	290	231	174	124	1,593

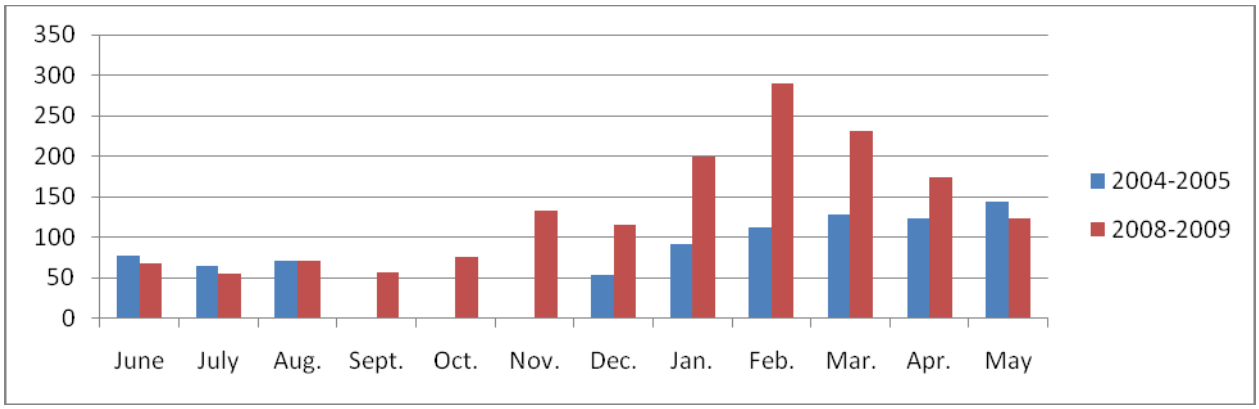

Figure 10. Comparison of FNST Visitation at Seminole State Forest 2004-2009

Rice Creek Management Area

Visitor Counter Data

Counter type:
- Bridges: Trail Master Eye

Counter related problems and solutions:
- None.

Trail conditions throughout the year:
- The trail condition was good throughout the year except late August 2009 flooding.

Table 26. FNST Visitation at Rice Creek Management Area 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Bridges	4	7	6	2	10	43	24	48	58	40	27	31	298
Picnic Area*	11	3	29	0	0	13	20	11	8	12	16	5	128
Monthly Total	15	10	35	2	10	56	44	59	66	52	43	36	426

*Data collected during the 2004-2005 year

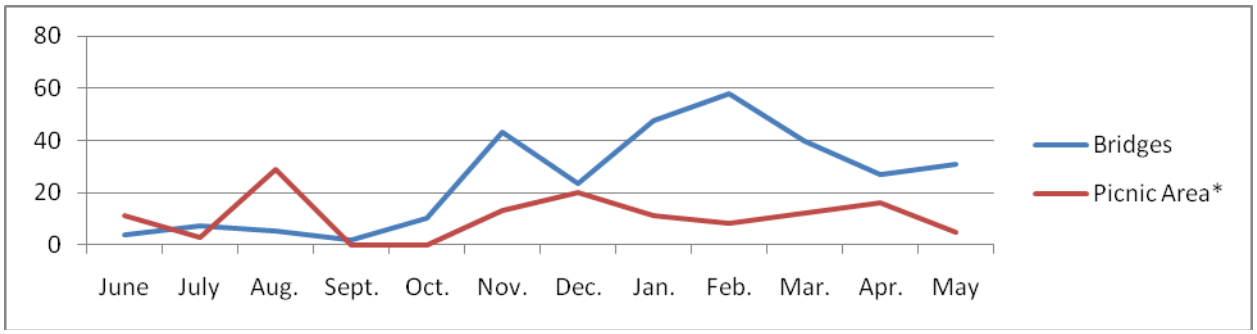

Figure 11. FNST Visitation at Rice Creek Management Area 2008-2009
* Data collected during the 2004-2005 year

Big Cypress National Preserve

Visitor Counter Data

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

Counter related problems and solutions:
- Both counters experienced at least once mechanical failure throughout the study year. Replacement was installed as soon as our volunteer could.

Trail conditions throughout the year:
- Oasis North had eight-month dry condition and four-month very wet condition (18" to knee-deep under water).
- Oasis South had almost all-year around very muddy or wet condition (18' to knee-deep under water).

Table 27. FNST Visitation at Big Cypress National Preserve 2008-2009

Access Point	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Oasis South	12	7	5	7	4	2	16	54	69	104	162	74	516
Oasis North	47	63	82	77	79	219	78	288	279	266	118	114	1,708
Loop Road*	28	32	21	37	23	30	30	38	42	41	29	21	372
Alligator Alley*	12	7	11	5	23	30	30	38	42	41	29	21	289
Monthly Total	99	108	119	126	129	281	154	418	432	451	338	230	2,885

*Estimate calculated from access point averages (Appendix II)

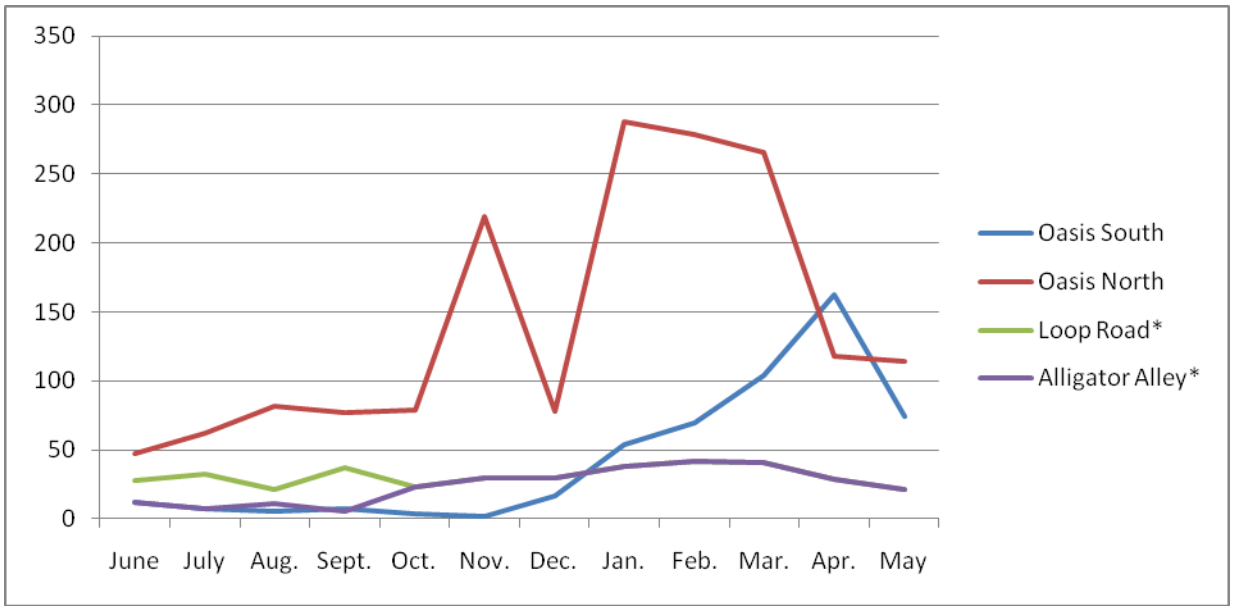

Figure 12. FNST Visitation at Big Cypress National Preserve 2008-2009
*Estimate calculated from access point averages (Appendix II)

2006-2009 Use Estimates

A comparison of data collected from 2006-2009 shows that the highest use year was the 2006-2007 study season with 3,378 estimated FNST visits.

Table 28. Comparison of FNST Visitation at Big Cypress 2006-2009

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

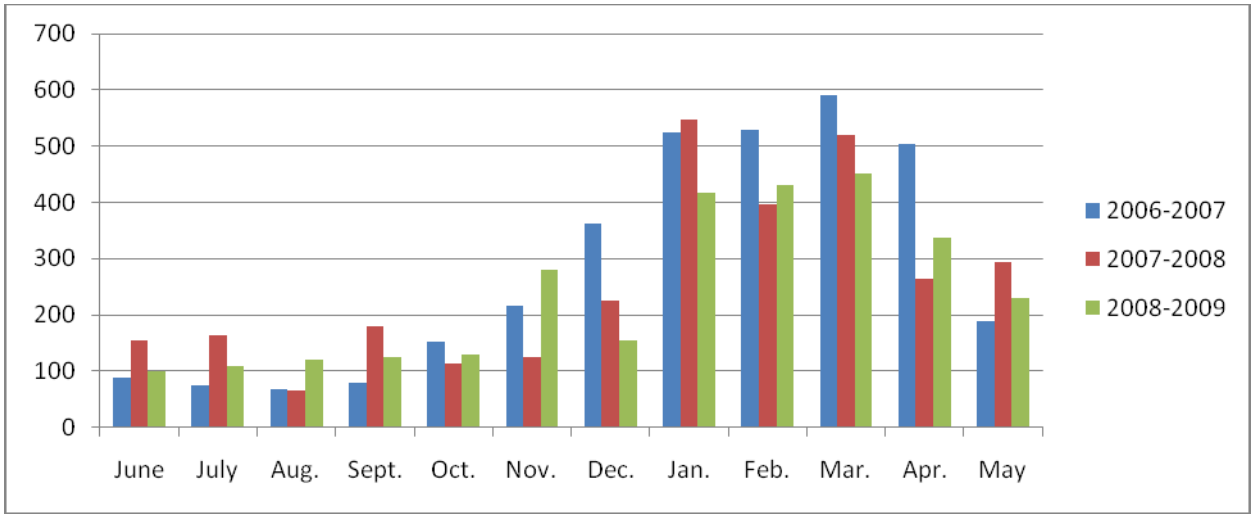

Figure 13. Comparison of FNST Visitation at Big Cypress National Preserve 2006-2009

Suwannee Segment

Visitor Counter Data

Counter type:

- Withlacoochee River South Bank: Trail Master Eye.

Counter related problems and solutions:

- The unit was found not functioning in October 2008 and replacement unit was installed. In April, the unit was damaged by area flooding and new replacement was installed again. In July, the transmitter was found not functioning and was replaced by new unit.

Trail conditions throughout the year:

- Generally good except September 08 fallen trees and area closure in April due to flooding.

Table 29. FNST Visitation at Suwannee Segment 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Big Oak Trail*	13	5	20	5	5	28	52	75	67	47	23	18	358
*Holton Creek**	*15*	*5*	*12*	*0*	*21*	*25*	*22*	*38*	*37*	*47*	*23*	*18*	263
*Suwannee Valley Campground**	*15*	*5*	*12*	*0*	*21*	*25*	*22*	*38*	*37*	*47*	*23*	*18*	263
SFFCC State Park†	27	23	48	10	18	142	71	52	85	392	128	141	1,134
Withlacoochee River South Bank	18	27	26	19	27	38	96	122	78	59	43	29	578
Monthly Total	87	65	118	34	91	258	263	325	304	592	239	223	2,596

*Data collected during the 2004-2005 year
†Data collected during the 2007-2008 year

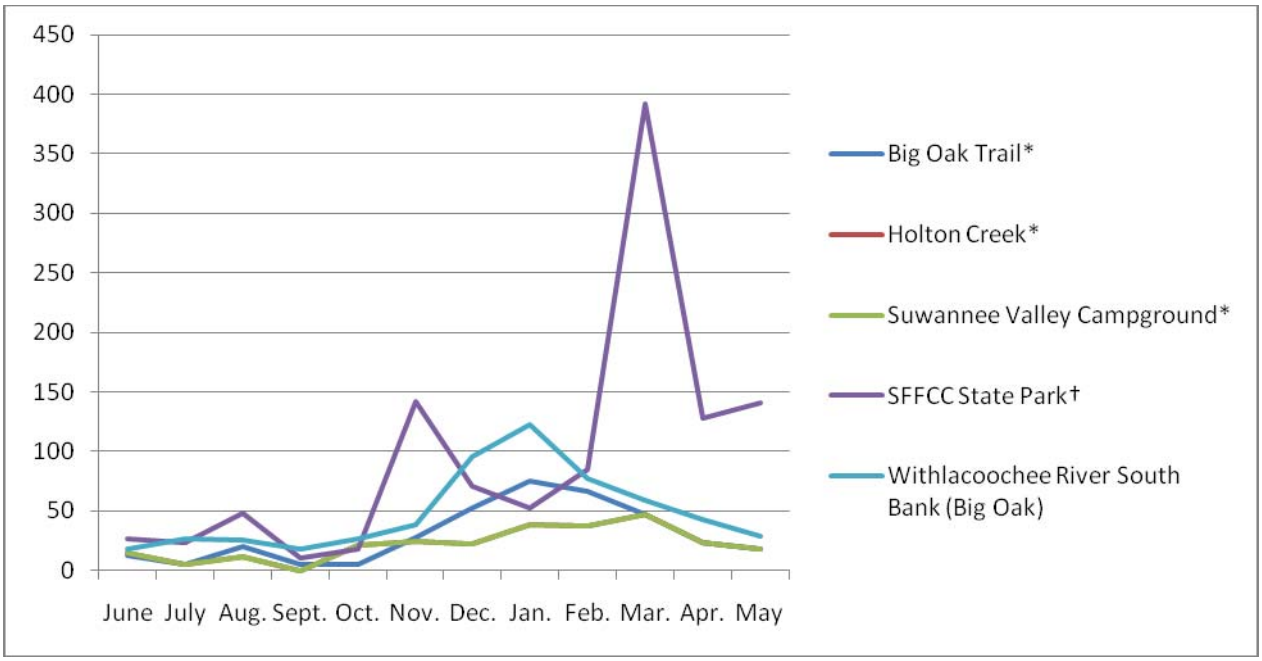

Figure 14. FNST Visitation at Suwannee Segment 2008-2009
*Data collected during the 2004-2005 year
†Data collected during the 2007-2008 year

Table 30. Comparison of FNST Visitation at Suwannee Segment 2004-2009

Study Year	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
2004-2005	77	50	67	5	47	78	178	191	220	236	69	127	1,345
2008-2009	87	65	118	34	91	258	263	325	304	592	239	223	2,596

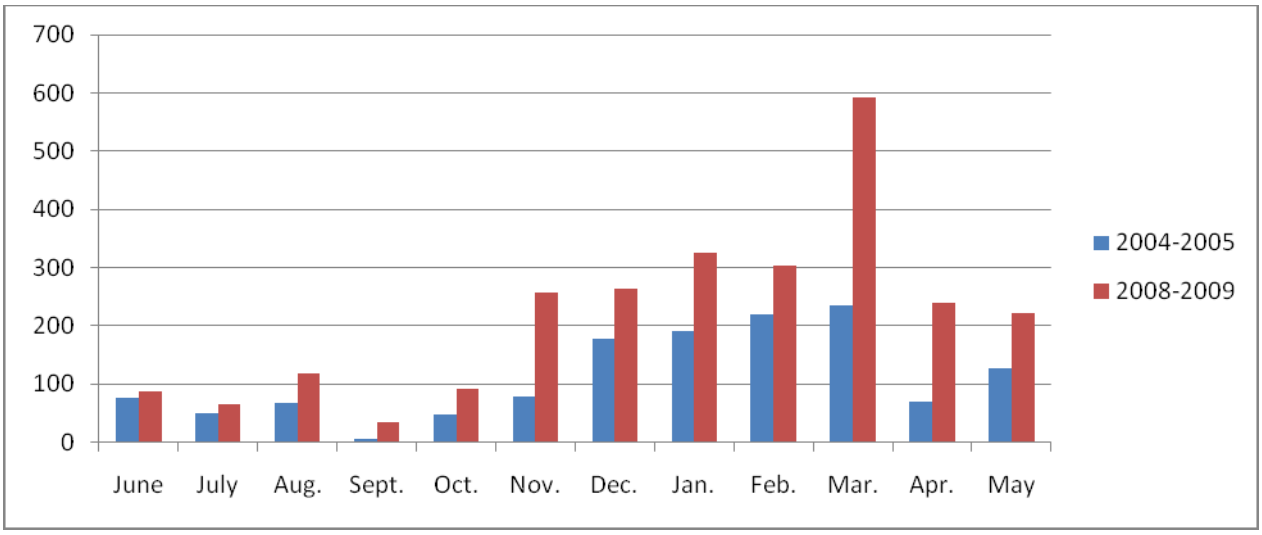

Figure 15. Comparison of FNST Visitation at Suwannee Segment 2004-2009

St. Marks NWR & Rail Trail

Visitor Counter Data

Counter type:
- Medart East: Trail Master Eye

Counter related problems and solutions:
- The counter preformed excellent throughout the study year without any problem.

Trail conditions throughout the year:
- Very good except prescribed burns in February 2009.

Table 31. FNST Visitation at St. Marks NWR 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Lighthouse Road*	26	29	10	75	114	99	83	105	77	146	90	45	899
*Purify Road**	15	5	12	0	12	10	5	11	5	12	3	2	92
*Wakulla Beach**	15	5	12	0	21	25	22	38	37	47	23	18	263
Medart East	14	3	6	2	2	11	10	18	24	29	8	3	130
Monthly Total	70	42	40	77	149	145	120	172	143	234	124	68	1,384

*Data collected during the 2004-2005 year

Rail Trail:
Estimated Foot Traffic: 1,550
Estimated Other Traffic: 11,791
Total Estimated Traffic: ***13,341***

Total FNST Estimation for all of St. Marks NWR & Rail Trail:
Rail Trail: 13,341
Others: 1,384
Total Estimated Visits: ***14,725***

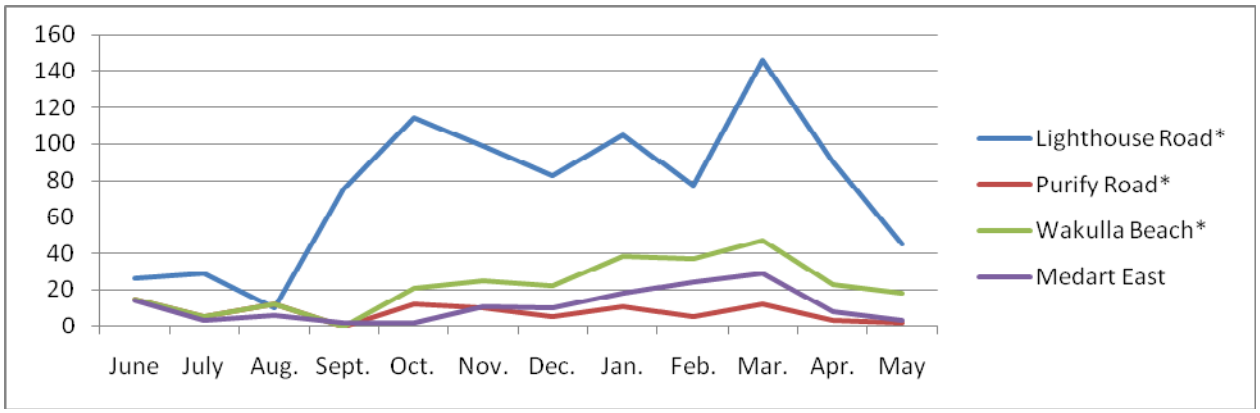

Figure 16. FNST Visitation at St. Marks NWR 2008-2009
*Data collected during the 2004-2005 year

Osceola National Forest

Visitor Counter Data

Counter type:

- Battlefield: Trail Master
- Turkey Run: Trail Master

Counter related problems and solutions:

- Unit at Battlefield was found not functioning in July 2008 and replaced immediately.

Trail conditions throughout the year:

- Both excellent. Festival in October 2008 at Battlefield seemed having not affected the trail use level.

Table 32. FNST Visitation at Osceola National Forest 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Battlefield	2	8	6	41	6	30	25	31	17	32	16	11	225
Turkey Run	13	6	20	2	27	24	23	51	37	45	40	22	310
Deep Creek*	12	7	11	5	10	13	8	16	9	15	11	5	122
Monthly Total	27	21	37	48	43	67	56	98	63	92	67	38	657

* Estimation calculated using access point averages (Appendix II)

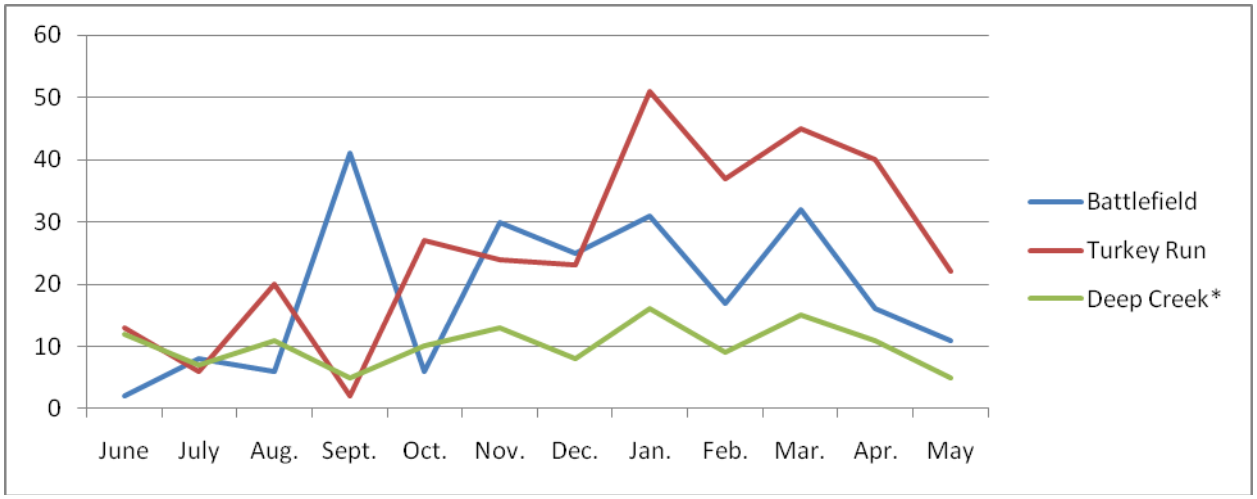

Figure 17. FNST Visitation at Osceola National Forest 2008-2009
* Estimation calculated using access point averages (Appendix II)

Table 33. Comparison of Visitation at Osceola National Forest 2003-2009

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

*Counter were not installed until October of 2003

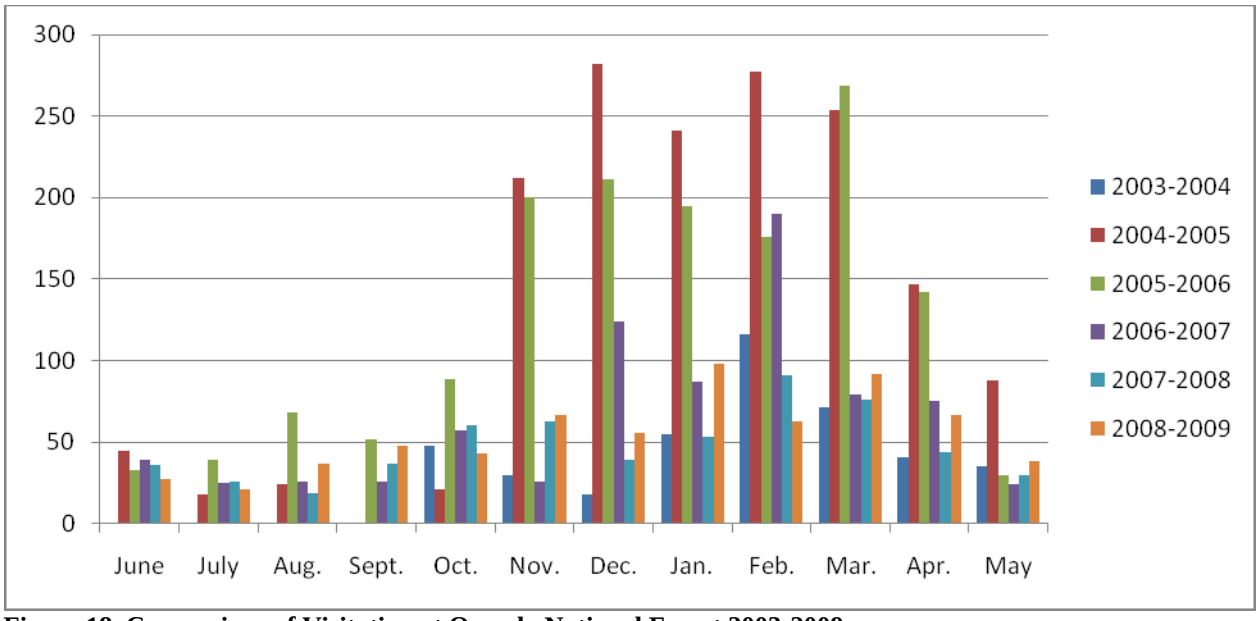

Figure 18. Comparison of Visitation at Osceola National Forest 2003-2009

Apalachicola National Forest

Visitor Counter Data

Counter type:
- Sopchoppy: Diamond traffics Eye
- Camel Lake: Trail Master Eye

Counter related problems and solutions:
- Both counter preformed well.
- Alignment sometimes got off 100% at Sopchoppy. Corrections were made.

Trail conditions throughout the year:
- In both locations, the trail condition was good. In April 2009, heavy rain flooded the Sopchoppy area making it inaccessible.

Table 34. FNST Visitation at Apalachicola National Forest 2008-2009

Access Pt.	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May	TOTAL
Camel Lake	0	5	2	3	14	6	7	10	25	28	37	9	146
Sopchoppy	7	14	23	7	18	24	19	33	35	76	16	11	283
FR 150*	12	7	11	5	23	30	30	38	42	41	29	21	289
Bradwell Bay Wilderness*	12	7	11	5	23	30	30	38	42	41	29	21	289
Porter Lake*	12	7	11	5	23	30	30	38	42	41	29	21	289
Monthly Total	43	40	58	25	101	120	116	157	186	227	140	83	1,296

*Estimation calculated by access point averages (Appendix II)

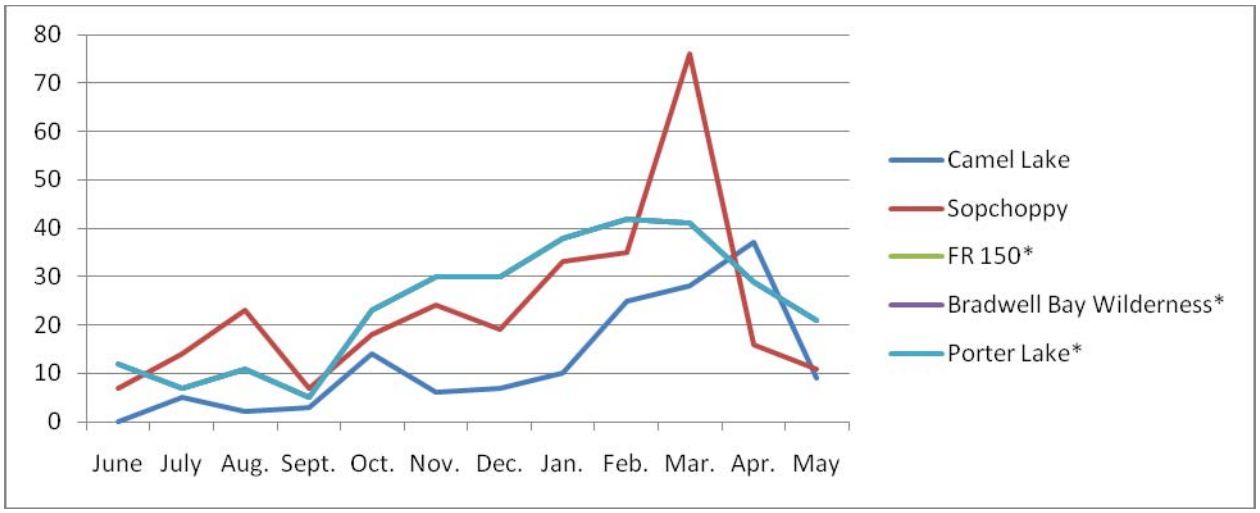

Figure 19. FNST Visitation at Apalachicola National Forest 2008-2009
*Estimation calculated by access point averages (Appendix II)

Table 35. Comparison of FNST Visitation at Apalachicola National Forest 2003-2009

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	1933
2004-2005	115	61	65	33	79	106	79	118	122	171	80	72	1099
2005-2006	127	129	115	136	137	255	184	231	291	270	214	368	2457
2006-2007	149	138	123	138	88	134	94	159	188	238	106	85	1640
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

* Mechanical Counter not installed until October of 2003

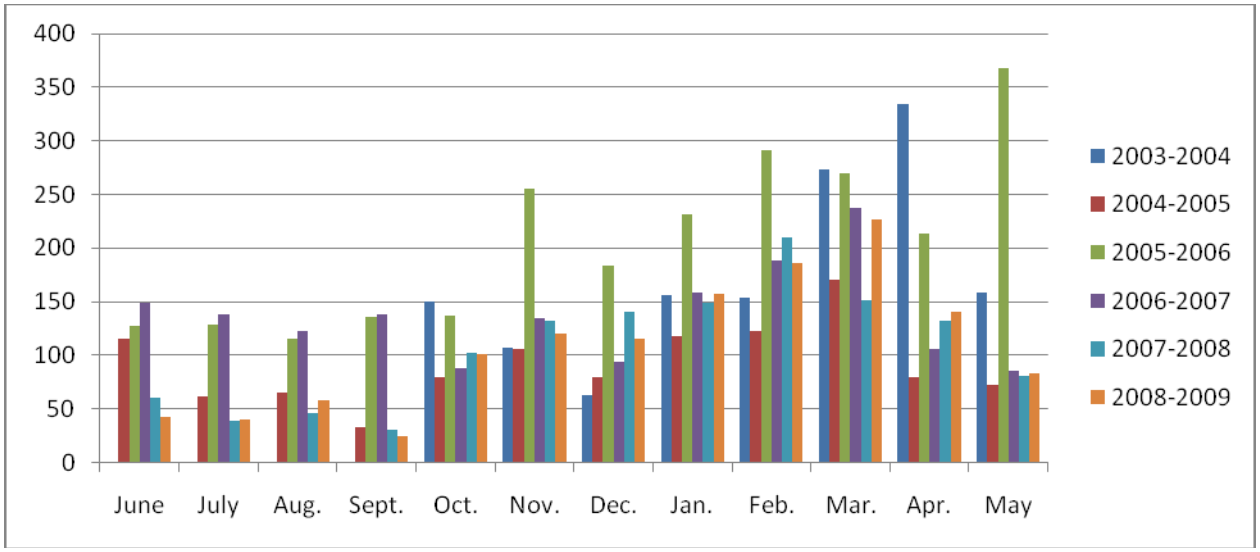

Figure 20. Comparison of FNST Visitation at Apalachicola National Forest 2003-2009